

Independent practitioner's assurance report

To the management of Shanghai Electronic Certificate Authority Co., Ltd. ("SHECA"):

Scope

We have been engaged to perform a reasonable assurance engagement on the accompanying management's assertion of SHECA for its Certification Authority (CA) operations at Shanghai (including Facility 1 and Facility 2), China for the period from April 1, 2024 to March 31, 2025 for its CAs as enumerated in Attachment A, SHECA has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environment control practices in its:
 - [UniTrust Certification Practice Statement v3.7.9](#);
 - UniTrust Certification Practice Statement v3.7.8;
 - UniTrust Certification Practice Statement v3.7.7;
 - [UniTrust Certificate Policy v1.5.7](#);
 - UniTrust Certificate Policy v1.5.6;
 - UniTrust Certificate Policy v1.5.5;
 - [UniTrust Event Certification Policy & Certification Practice Statement v1.8](#); and
 - UniTrust Event Certification Policy & Certification Practice Statement v1.7,
- maintained effective controls to provide reasonable assurance that:
 - SHECA's Certification Practice Statements are consistent with its Certificate Policies; and
 - SHECA provides its services in accordance with its Certificate Policies and Certification Practice Statements,
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles;
 - subscriber information is properly authenticated (for the registration activities performed by SHECA); and
 - subordinate CA certificate requests are accurate, authenticated, and approved,
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity,

in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#).

SHECA makes use of external registration authorities for specific subscriber registration activities as disclosed in SHECA's business practices. Our procedures did not extend to the controls exercised by these external registration authorities.

SHECA does not escrow its CA keys, and does not provide certificate suspension services. Accordingly, our procedures did not extend to controls that would address those criteria.

Management's Responsibilities

SHECA's management is responsible for the management's assertion, including the fairness of its presentation, and the provision of its described services in accordance with the WebTrust Principles and Criteria for Certification Authorities v2.2.2.

Our Independence and Quality Management

We have complied with the independence and other ethical requirements of the International Code of Ethics for Professional Accountants (including International Independence Standards) issued by the International Ethics Standards Board for Accountants, which is founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

Our firm applies International Standard on Quality Management 1, which requires the firm to design, implement and operate a system of quality management including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Practitioner's Responsibilities

It is our responsibility to express an opinion on the management's assertion based on our work performed.

We conducted our work in accordance with International Standard on Assurance Engagements 3000 (Revised) "Assurance Engagements Other Than Audits or Reviews of Historical Financial Information". This standard requires that we plan and perform our work to form the opinion.

A reasonable assurance engagement involves performing procedures to obtain sufficient appropriate evidence whether the management's assertion of SHECA is fairly stated, in all material respects, in accordance with the WebTrust Principles and Criteria for Certification Authorities v2.2.2. The extent of procedures selected depends on the practitioner's judgment and our assessment of the engagement risk. Within the scope of our work we performed amongst others the following procedures: (1) obtaining an understanding of SHECA's key and certificate lifecycle management business practices and its controls over key and certificate integrity, over the authenticity and confidentiality of subscriber and relying party information, over the continuity of key and certificate lifecycle management operations and over development, maintenance and operation of systems integrity; (2) selectively testing transactions executed in accordance with disclosed key and certificate lifecycle management business practices;

(3) testing and evaluating the operating effectiveness of the controls; and (4) performing such other procedures as we considered necessary in the circumstances.

The relative effectiveness and significance of specific controls at SHECA and their effect on assessments of control risk for subscribers and relying parties are dependent on their interaction with the controls, and other factors present at individual subscriber and relying party locations. We have performed no procedures to evaluate the effectiveness of controls at individual subscriber and relying party locations.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Inherent Limitation

Because of the nature and inherent limitations of controls, SHECA's ability to meet the aforementioned criteria may be affected. For example, controls may not prevent, or detect and correct, error, fraud, unauthorised access to systems and information, or failure to comply with internal and external policies or requirements. Also, the projection of any opinion based on our findings to future periods is subject to the risk that changes may alter the validity of such opinion.

Opinion

In our opinion, the management's assertion of SHECA, for the period from April 1, 2024 to March 31, 2025, is fairly stated, in all material respects, in accordance with the WebTrust Principles and Criteria for Certification Authorities v2.2.2.

Emphasis of Matter

We draw attention to the fact that this report does not include any representation as to the quality of SHECA's services beyond those covered by the WebTrust Principles and Criteria for Certification Authorities v2.2.2, nor the suitability of any of SHECA's services for any customer's intended purpose. Our opinion is not modified in respect of this matter.

Other Matters

The UniTrust Global Root CA R1 (Attachment A #100), UniTrust Global Root CA R2 (Attachment A #107), UniTrust Global Root CA R3 (Attachment A #111), UniTrust Global Code Signing ECC Root CA R2 (Attachment A #115), UniTrust Global SMIME ECC Root CA R2 (Attachment A #121), UniTrust Global Time Stamping ECC Root CA R2 (Attachment A #129), UniTrust Global TLS ECC Root CA R2 (Attachment A #133), and UniTrust Global TLS RSA Root CA R1 (Attachment A #137) CAs did not issue certificates during the period April 1, 2024 to March 31, 2025 and were maintained online to provide revocation status information only.

SHECA's management has disclosed 4 incidents (see Attachment B) during the period from April 1, 2024 to March 31, 2025. The remedial actions and the root causes of these incidents undertaken by SHECA have been posted publicly in the online forums of the

Bugzilla site, as well as the online forums of individual internet browsers that comprise the CA/Browser Forum.

Our opinion is not modified in respect of these matters.

Purpose and Restriction on Use

The management's assertion was prepared for obtaining and displaying the WebTrust Seal on SHECA website¹ using the WebTrust Principles and Criteria for Certification Authorities v2.2.2 designed for this purpose. As a result, the management's assertion of SHECA may not be suitable for another purpose. This report is intended solely for the management of SHECA in connection with obtaining and displaying the WebTrust Seal on its website after submitting the report to the related authority in connection with the WebTrust Principles and Criteria for Certification Authorities v2.2.2.

Our report is not to be used for any other purpose. We do not assume responsibility towards or accept liability to any other parties for the contents of this report.

Use of the WebTrust seal

SHECA's use of the WebTrust for Certification Authorities Seal constitutes a symbolic representation of the contents of this report and it is not intended, nor should it be construed, to update this report or provide any additional assurance.

A handwritten signature in cursive script that reads 'PricewaterhouseCoopers'.

PricewaterhouseCoopers
Certified Public Accountants

Hong Kong, 9 May 2025

¹ The maintenance and integrity of the SHECA website is the responsibility of the management of SHECA; the work carried out by the assurance provider does not involve consideration of these matters and, accordingly, the assurance provider accepts no responsibility for any differences between the accompanying management's assertion of SHECA on which the assurance report was issued or the assurance report that was issued and the information presented on the website.

Attachment A

The list of keys and certificates in scope for the period from April 1, 2024 to March 31, 2025 is as follow:

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
1	UCA Root G2	Root Key	sha256RSA	2048 bits	CN = UCA Root G2 O = UniTrust C = CN	E4BB2C9FB2B51C8831AF7FCBDCF4052BE085F701	A07919A6391BCD6E15FB33A41B43A938EF3D19CF54F0198EC29D02364BC5AoEC	UCA Root G2
2	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	69275DE8AF892E26E1B5339A664C194550799372F13CA6FB4966408F6A43C5B4	UCA Root G2
3	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	23434A3078ADBE51DF267504F5655107ED1AA4E555D3DF21F479F1B4E4610Ao8	UCA Root G2
4	GlobalSign China CA for AATL	Signing Key	sha256RSA	2048 bits	CN = GlobalSign China CA for AATL O = GlobalSign China L = Shanghai S = Shanghai C = CN	FCAD8AADBF323AFF97C09BD74A7039888919D46A	D883436D97Bo8B008810D2EF3852D322E1D3528C751D3B23FF0C80803ED1CFAE	UCA Root G2
5	UCA Root SM2	Root Key	SM2	256 bits	CN = UCA Root SM2 O = UniTrust C = CN	EEE8B09CD5DCEC73FDEF7CFA502CC6C140E64CB3	307C77562B1532AE5FA6E63ED597CD54A0CBCC111F3598A7CCB2E19DD1351362	UCA Root SM2
6	UniTrust DV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust DV Secure Server CA G4 O = UniTrust C = CN	ADA611696054F898CED269542A29DF239484E833	68B5E5FCA21925C5AF6628341FE6DBD187C6E66AEEF5F58295DCD7238FF56AD8	UCA Root SM2
7	UniTrust OV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust OV Secure Server CA G4 O = UniTrust C = CN	D6546FA6587275420BF204794C4C6DE4368A8BD5	E75A9D14B5C5FF14779FoDC8A7889EE757788DC82706D95B4E2AF039098FA72C	UCA Root SM2
8	SHECA SM2	Signing Key	SM2	256 bits	CN = SHECA SM2 O = UniTrust C = CN	893104917B43AAA9ABF841D9B86EEFoB87099Ao	F5F6192276AED2141B3A66FD66724D46C5A58CACF618CAA5B5AA546ED5865207	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
9	TrustAsia SM2 DV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	1B40CF756BB3E9D42B6AE0C CA449D5A26FE48F2A	FB812E1561383E0020103977D7E64D18B3587BC092F9DE C67600DE2A8493352C	UCA Root SM2
10	TrustAsia SM2 OV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	3623100989022D63A4C9E816BC531490AA2A01F7	2DBE68A196611EC658022F62607FBC0AA2000FD3147028EB2B16355B6D296EDF	UCA Root SM2
11	TrustAsia SM2 Identity CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 Identity CA - S1 O = TrustAsia Technologies, Inc. C = CN	73075D5EFBF48320ED005F013AD1930E3FF432F2	BACE521585871388E4B3ECF44B5B4A965CCFD995C72D8813B61E643C77F1298D	UCA Root SM2
12	SHECA SM2 Identity CA G1	Signing Key	SM2	256 bits	CN = SHECA SM2 Identity CA G1 O = UniTrust C = CN	687C2F9B2E68A2DFCE11115411A6B60E6CEE2520	490BA44A5C4061D487EF1C945EC4889770A1F31299F0083045192D8978C25D7E	UCA Root SM2
13	CECloud Secure Server CA V1	Signing Key	SM2	256 bits	CN = CECloud Secure Server CA V1 O = 中国电子系统技术有限公司 C = CN	3D017054EBD1DAE2FA72558A7B4AD4112EC2789C	D973269DE727110F2577F12FC7039F204C8688F90479A60A6D918181E96BC921	UCA Root SM2
14	CT2 DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 DV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	4C1A3411A3416DE899A4B670626764EA7CF2A784	1D00F1814BB2A20D578BA255B6F80D6F831CA7302BE28E446FB2530BEE90CBEA	UCA Root SM2
15	CT2 OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 OV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	6C5DF638967FADECC1F4352AEE7B53772AD4AE56	68A9EC5F347044CA199DoC227BBAF1167FB19C9F1C2718ED1AoCBA53AA095B8B	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
16	CT2 EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 EV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	34F2351E936044F2951DDE201F7FEBAAF61A1465	7FoCC711C115AEF7FE38707945FE116E11CDA4D39343A3194F01A01A6AFDA86A	UCA Root SM2
17	KeepTrust DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust DV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	343B9BF590205E0D98DA77EB32C59EF95397A96F	B5D123DF7246E26A98C1BF96B8EB817F3E4300F014818959353C6B1FBA603446	UCA Root SM2
18	KeepTrust OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust OV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	071E11176177C996A40ABC42F9789CBABD493114	003F65AF71B13A6E73081A44E4C14B5E3B60F02064285F00C46F93AD3A7F8769	UCA Root SM2
19	KeepTrust EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust EV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	7539B83459BDC90FDF2F9EB1777AB785A4B92DB3	18A4E716F150E9B98350502F9DB956CAA8A134F49C159DB4998AF0835010D139	UCA Root SM2
20	SHECA EV TLS SM2 CA G4	Signing Key	SM2	256 bits	CN = SHECA EV TLS SM2 CA G4 O = UniTrust C = CN	3FED031972F260AF185B2DD99735E1D7985C958D	6FF668D6CC32F96E56C776C49534A9698742C245396BE06029F1DF7F18B1D615	UCA Root SM2
21	DNSPod DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod DV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	7EA2D174C8475067B0780812F2D3F402E3D005A9	C1245B9C48D1B0889DE62D22092E20ECBBD150C8ACE738B9E495F41ADA782AAD	UCA Root SM2
22	DNSPod OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod OV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	BDF1F484808D223851B9C79662FC596F3DC820AA	8FDD10BD38AB8AA8C541CCFCC637F50F8B667E86C7DCAD02061614EAB53462E3	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
23	DNSPod EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod EV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	F6AEE376BEAF C14367FoC11D1 6A2A4A88D935 D8C	3A381E099528FCE C2D94B3433D469F 737543C0020C34E 46CAA9E4EFF288 A7AB2	UCA Root SM2
24	Keymatic Secure Domain SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Domain SM2 CA G1 O = PKI(Chongqing) Limited C = CN	1064E31D47745 48526E2169E17 E0E4E58F672F E3	077114080656553F 7C2C0235311FAD3 BDA492958C2E2A E8E720960565AEB 9585	UCA Root SM2
25	Keymatic Secure Business SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Business SM2 CA G1 O = PKI(Chongqing) Limited C = CN	E81A57AF0C01 5AC3731CF3912 F882D761C1408 DF	676224C3F6E4EFF 575F04073AC57AF D17C2A7D4270E5C 19BB284C738F0E3 C421	UCA Root SM2
26	Keymatic Secure Site EV SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Site EV SM2 CA G1 O = PKI(Chongqing) Limited C = CN	547FF1C3D65B AEA46A9DACA DEA94E8E1874 9D4A6	3DA7919952037C7 D1F962A37A4EA90 26C8483C2C4AFE3 E756FD3345DCF6B C150	UCA Root SM2
27	sslTrus SM2 DV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 DV TLS CA G1 O = sslTrus C = CN	F921F5B4756F5 159429644147A 63F443195BAC9 A	BDE9CF0D1DoA60 EA891C037CBA7CC oD6036B2140319C 7A80E46D9CA38F AC2C4E	UCA Root SM2
28	sslTrus SM2 OV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 OV TLS CA G1 O = sslTrus C = CN	DD18CA5E337D D2EECCF5AB16 14E3559B43CF CB32	6C25FD7209E6190 8919204027B8DEC C4A0C07469A99A5 3D66798FB96FF8A oEC7	UCA Root SM2
29	sslTrus SM2 EV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 EV TLS CA G1 O = sslTrus C = CN	EB3B9889FD7B 8E7161C4F4D7 D2C1BC73433A FA52	65F06D7C7332F18 4A36B5C8ABB2F6 FC4DECA45249958 6A29693C3A4BF6 D3955A	UCA Root SM2
30	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	9BEA11C976FE014 764C1BE56A6F914 B5A560317ABD998 8393382E5161AA0 493C	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
31	SHECA SMIME CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA SMIME CA G1 O = UniTrust C = CN	1FA80B4DCF9C A6A53ADAB09 6AB9957B90A9 B7F5D	8100D384D6C4529 883C37C37C68FD4 903C41CCBCB9033 A9C733A6AF0806E 1DE7	UCA Global G2 Root
32	SHECA RSA Code Signing CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Code Signing CA G3 O = UniTrust C = CN	FD7EC87AC277 1C5687D2AEF8 07C7426A1B7C4 2A8	C7E976AA77E9249 1C269840B2F1461E 65147A2BB181EE59 AB63BCD86704FE 456	UCA Global G2 Root
33	SHECA RSA Domain Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Domain Validation Server CA G3 O = UniTrust C = CN	057A4D756FFD 0A83B16716757 73E14C5F53C54 8E	0A552A65F22FF82 0E7EC3D43BBF88 B02ABC34BD247E 0C3505891B6342F1 6A5F2	UCA Global G2 Root
34	SHECA RSA Organization Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Organization Validation Server CA G3 O = UniTrust C = CN	316068091E32F 9F6CCC06215A A7B91AF4C119 D40	26FD4C4367E463D 39C71796AE4010E 53380DC93BC132F B019D6718A6873E 81F4	UCA Global G2 Root
35	SHECA RSA Time Stamp Authority G1	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Time Stamp Authority G1 O = UniTrust C = CN	6FC5770C4E82 5E4B544B30BD 9933F408571A3 DB4	86EE4A2F93137CA 8887674078B3940 70F189B3049DD2 D24053AE9292425 4C668	UCA Global G2 Root
36	SHECA DV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA DV Server CA G5 O = UniTrust C = CN	D8E7061B645F AB3008887A24 53AAE11C8304 BF6D	778C516DAEC700E E58B3581E411E5C 0DD478663A5163A 29895341507D6E9 64DD	UCA Global G2 Root
37	SHECA OV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G5 O = UniTrust C = CN	0379A38D525F D4E988921F43 58542502F4878 B7E	8AB3A0ACF289E6 EF754BE44923684 3D67F45C191BDDD 66484B85E6E6055 6A9AF	UCA Global G2 Root
38	SHECA EV Server CA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G2 O = UniTrust C = CN	86B148C0420A 9C6F81FC4FDC D10F184BAAB5 A6EA	4216527163AD2CA A825D3BF48F61A7 661DoABC89B58A B76B23A1E10999F 0769F	UCA Global G2 Root
39	SHECA Code Signing CA G4	Signing Key	sha256RSA	3072 bits	CN = SHECA Code Signing CA G4 O = UniTrust C = CN	73C3B39021CB F23BDA23D351 F295C58BC678 EE47	8FoC3E06A16E3EA 7C9B15A848076ED 15E51DA0B6F1AFA 274EDE2B9102191 FE0F	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
40	SHECA Time Stamping CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA Time Stamping CA G2 O = UniTrust C = CN	CFDD9E670A6CB17E2C1A4F595387B2369BF96994	422C71F8DB9FDA2C65458B52363DB6FDC4E37B436774BCF97518F3F42EC725F1	UCA Global G2 Root
41	TrustAsia RSA DV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	9432E0D48ACD1D93E75C5372960C5EF1F3F67972	074ADD7F1E73EB110EC8E2B78A92C51CF5A451135B6F7DEFC019EE9D74BFA4D6	UCA Global G2 Root
42	TrustAsia RSA OV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	F575D48E293E17A8A9C49EDCE6DB0A344D132AEB	D16BA9ACB74FEE4AA8087EE482E86E7F6F5F55FAC5025639730753FE1E705E3C	UCA Global G2 Root
43	SHECA Global G3 SSL	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 SSL O = UniTrust S = Shanghai C = CN	9820FoF1D942A6DE833F991019003D6868D20181	AEFFE4335EE56422E927F45E95AE142B9EB35979A7400569AE9BDEA6CAA BC1DC	UCA Global G2 Root
44	SHECA Global G3 Code Signing	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 Code Signing O = UniTrust S = Shanghai C = CN	F73DF939A8D98754AC778EF5D995EEF835AB9439	EAA5AD8E9A2FA992354B2FF4254BEBo8A632F7F17602604DDED58D73D616D844	UCA Global G2 Root
45	Xinnet DV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet DV SSL O = 北京新网数码信息技术有限公司 C = CN	9D3AA5B8E2212783643FF578DC22B04E6BCB36D4	9C53902F9501F6D89766999DBE2AD1A1436420B652535CDC2DC51CCFE2F FEE68	UCA Global G2 Root
46	Xinnet OV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet OV SSL O = 北京新网数码信息技术有限公司 C = CN	4B78C0324A2442784E9F83FoDoFE336C7EoD934F	3C07D7EFC8D458F668C10D4Fo6F90503CCD25D59E2B3F1D58B32884D9E4E3809	UCA Global G2 Root
47	SHECA MV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA G1 O = UniTrust C = CN	4F111E8FD4506500D7CE565190AF012BFB143845	Co64FAB74E8723164932A25CFB6708106E1E5A3A05CFD1079B1DCF52792C5908	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
48	SHECA IV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA G1 O = UniTrust C = CN	E010A54E644A8F605F134C5C108E742C0168B BE5	2A1AAA3E4D7C6E C8BE083BDBDD24 7153A88D51F1226F D9691B872AE23D1 66BFF	UCA Global G2 Root
49	SHECA OV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA G1 O = UniTrust C = CN	E3B8865D1EF2 FF2146219648B D54022EC93BC 85C	73BA9F7AE0924F3 567F0280568A705 0A58C9C4855DE0 686C2FDC48522EB 86D2D	UCA Global G2 Root
50	SHECA Code Signing CA G5	Signing Key	sha384RSA	3072 bits	CN = SHECA Code Signing CA G5 O = UniTrust C = CN	4CF2087E0172 B6C0A36E0655 BoF20C06293C E53F	51984B5D20306FE 69008A5B5EE5643 E5BF416443330910 653F00A21B609B2 D23	UCA Global G2 Root
51	JoySSL DV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA G1 O = JoySSL Limited C = CN	2A56E8EF40E0 A9999D6DD812 9FB79B056B88 2DED	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
52	JoySSL OV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA G1 O = JoySSL Limited C = CN	6BF2449C86D0 C6DED8510766 1B2748792342C B95	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
53	KeepTrust DV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	088B0DF30B09 66297021D02C 377300F5A7F4E 7E9	352582CCC85B394 4E3CD2505D9318F 22ABEA418BFF29A 0FE4D2C0DF280F 200E3	UCA Global G2 Root
54	KeepTrust OV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	F68D3850B96E A8BEFC50CA91 247F1ABC9EA3 9D4D	CD50559A6DC5C7 04237EABF9A070B 79F0CDFC1A79C3A 6AC8C5E71E295A0 65D0A	UCA Global G2 Root
55	ZoTrus RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA G1 O = ZoTrus Technology Limited C = CN	EC1EBCB71E09 2769EFA715E89 AA1677C33AA0 F5A	E7EF1AD946214B3 2AF03CC287930D0 464ED2C086D7A14 47C6E27FC9217D4 E16B	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
56	ZoTrus RSA OV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA G1 O = ZoTrus Technology Limited C = CN	AoFA64A37EB83C7C194C51B7FE6A2BE8A39F78A4	3EC123D71DB27AE1DC8F877286C222F4167A2AE4FD7BCF370789EF4A9521B8	UCA Global G2 Root
57	JoySSL DV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA O = JoySSL Limited C = CN	807B3118B837D850FD1C4AD9879A5E426D00A1A4	AA9CD0737407E9E9D9D86B145A2CFD7CD385C28BCF5996AA8D9A6DA5FC76F3A2	UCA Global G2 Root
58	JoySSL OV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA O = JoySSL Limited C = CN	21507E5079E680B202CoFBC1AFAD8026DC52B8DD	oDD33FA366CA02808D29A5C1C456496AB5015C3604EB21C101406AF2533D998A	UCA Global G2 Root
59	KeepTrust DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	5063446A28FAC2B3D5122D01A63D9B85845026CC	A879CB01A2661C255B9C2B9BE0B20BA74EEA9546E21A82C570E177CF5BF4AEDA	UCA Global G2 Root
60	KeepTrust OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	04FA1B9DBC05CD575CC6518D5CDFE62CD151BoC8	FFDoD9EEEEAFB4B444F71392F20A52E0F65896854933139640722DECFC2D4658	UCA Global G2 Root
61	ZoTrus RSA DV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA O = ZoTrus Technology Limited C = CN	7FEF9BoB9EB3F717A576BBC7580209DE731544B7	69C25861236502F0C223443FD851A2FB6ACB745BB814AD72BB2E50867C52C3BB	UCA Global G2 Root
62	ZoTrus RSA OV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA O = ZoTrus Technology Limited C = CN	E92D57AB2A4455799E257937123588FCDF187AC3	219C59CCD06D0210ADCF6E8125700D1578F69A0670A07FD9DDE99E4AC82524CD	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
63	CT2 DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 DV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	8955C1DB0608F7A83C51CA3BF98F017B90098A73	4B316EDFC0780286571E430C0A94231B192B45666AF5DEBEE454FE08E4496383	UCA Global G2 Root
64	CT2 OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 OV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	27937BF574A8AF23A7F29E2B03CFACC7182B2EFA	A263B7CEFD1490D04FD0EC31D9695BAEE480EE861D12124C2BF8EBD8A893652F	UCA Global G2 Root
65	SHECA FREE DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA FREE DV TLS RSA CA G1 O = UniTrust C = CN	F18082839D6BB5C20A6A43C2D584A9F6F3EF2DC9	DFD9FB07A42E81216D6497FBC47BE53D829BBFD6A9188B02D5C8CE29E01CF5C	UCA Global G2 Root
66	SHECA FREE DV TLS ECC CA G2	Signing Key	sha384RSA	384 bits	CN = SHECA FREE DV TLS ECC CA G2 O = UniTrust C = CN	84BCFE29594A85C0849FF0F21230812BE73F9BBC	81DB88F4CDE7345BoEC140E4A193720163DF9B787FABA0AF5A7EDACE6DC315A6	UCA Global G2 Root
67	SHECA DV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA DV TLS ECC CA G6 O = UniTrust C = CN	7E44A7C621F5F30E25293C07F288ECC82F7BD482	1F0570E418F9C89E094CB26EDA71B92BED81ACBB446B2300D398DDB739AB7A6C	UCA Global G2 Root
68	SHECA OV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA OV TLS ECC CA G6 O = UniTrust C = CN	2569CCEFD564A83BAC15284500F13D86104FEE0	C4DA2C937523D42054FBB4AF694BB90FC7743C910EE048726241BD84C38509D9	UCA Global G2 Root
69	DNSPod DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod DV TLS RSA CA G1 O = DNSPod, Inc. C = CN	4CF1C77BBB5F991923F8616FD712F9749C5AE55C	A07A7DEFCD1ED23F36D22AC33421F1D973583B12C96CA2496DE724C4494CoCD2	UCA Global G2 Root
70	DNSPod DV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod DV TLS ECC CA G1 O = DNSPod, Inc. C = CN	B9A7EB6345ADB88940892F8B69930658DA9733CF	AACCD77057271FF5F605DF8CC5A44397E71CCE796EA79B8F1E8658FC9CD52464	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
71	DNSPod OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod OV TLS RSA CA G1 O = DNSPod, Inc. C = CN	38C22FB4856A B84A51911FE53 A7FE2BE110333 8F	F36592E33FD869E 917E33BADE683A4 EC20809D5C8B49 3A1427BA6DC066C B5AE3	UCA Global G2 Root
72	DNSPod OV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod OV TLS ECC CA G1 O = DNSPod, Inc. C = CN	586EA65733443 DCE3CED5DEB F47E000FoE81 B28D	8C4BFF9AE3F079E 50208F84E4DA658 AB441109686861FF CEE50D4A8662C2 EEA1	UCA Global G2 Root
73	Keymatic Secure Domain RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Domain RSA CA G1 O = PKI(Chongqin g) Limited C = CN	8ED096D6E8A 4D935F386EBD AoB592E40521 BoCBB	F3C9431A163BECE 79562093F0734DF 6ED05618551CFEE oABA949A77E959 D8AAE	UCA Global G2 Root
74	Keymatic Secure Domain ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Domain ECC CA G1 O = PKI(Chongqin g) Limited C = CN	C1286B590B198 916D776E6661E 57D4460812ED DF	Bo7D2ACA4F29E2 449B5ADB7CCB31C 64C43854044A2DA A2AC838788026C6 84CoC	UCA Global G2 Root
75	Keymatic Secure Business RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Business RSA CA G1 O = PKI(Chongqin g) Limited C = CN	5693F449C7E44 8C3C3D2BE863 97E33368163A3 77	5523644185E21EF9 43A505A1C438167 DA1FE7B14BEF2D2 43E53DE8C2B4263 EB7	UCA Global G2 Root
76	Keymatic Secure Business ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Business ECC CA G1 O = PKI(Chongqin g) Limited C = CN	23368DE013A9 BB36D76A66E1 128EDA5F4A36 20D5	75C4AF6628E7D01 DD369593EFD727 E3560ED9DDD67B 04325655821BD23 281A2B	UCA Global G2 Root
77	sslTrus RSA DV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA DV TLS CA G2 O = sslTrus C = CN	DEE386BAC52 E630164E0C142 943C3202967C6 891	B3A5BED750BCE5 Ao8C75E0012BoA6 A67954952BC8D12 520514CC15CBB0B 17039	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
78	sslTrus ECC DV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC DV TLS CA G2 O = sslTrus C = CN	624679EBA47F FA4CD98D6FF FDE6D6F7FE49 E86E9	32CAA961415106CF 471CEA5B15C6646 4A907C99861A297 C359D174624BADB 92F	UCA Global G2 Root
79	sslTrus RSA OV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA OV TLS CA G2 O = sslTrus C = CN	0EDFB6894806 4E10818E3C810 8C824BB8B308 F62	F0E647B5A2869A3 487507A90549AF0 39896DB8B0FoE7 CF92EF3AB567F3E C5E5C	UCA Global G2 Root
80	sslTrus ECC OV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC OV TLS CA G2 O = sslTrus C = CN	BEE114C1BEF8 4DA5E3D4E41F CA0D1F81A90C oFE0	06B7E611243D2901 B964FF6DoC53A2 DB52BA2E1D41E17 D74950E16605D9A 2C90	UCA Global G2 Root
81	HTTPS Automatio n Research RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = HTTPS Automation Research RSA DV SSL CA G1 O = Shenzhen Yamu Security Technology Co., Ltd. C = CN	0FB6A84D71E5 B1B38F9E72D6 BBC06A147FE4 Do3B	1E426FF0F51EB4C 285788B4418D2DA B21097230CED8111 9BA178A20AB1AAB F67	UCA Global G2 Root
82	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	C1AFC65B1E813Bo E6146E6AA5341681 272ABE9A38D59F7 BD1B27B729834Ao D9C	Certum Trusted Network CA
83	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	3DD69C5BE170F94 3F804D1D31FE8F9 16CoC0226CDD7 AEA9AA9AoCDDFD 3474361	Certum Trusted Network CA
84	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	BB61408AED9F530 B2EC0545E53BA2C 8EBEAA57D997644 7DB1663CED4600 CD6B7	Certum Trusted Network CA
85	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	BFA95C5DF164B65 9FA32F6D10564D7 170DDE661A853A7 82E6AB63639433B CB41	Certum Trusted Network CA
86	UCA Extended Validation Root	Root Key	sha256RSA	4096 bits	CN = UCA Extended Validation Root O = UniTrust C = CN	D9743AE4303D oDF712DC7E5A 059F1E349AF7 E114	D43AF9B35473755 C9684FC06D7D8C B70EE5C28E773FB 294EB41EE7172292 4D24	UCA Extended Validation Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
87	SHECA RSA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Code Signing CA O = UniTrust C = CN	8E40665F6AA940C2B9F1F04A22639564593707E5	D404FAFA4BA2F426B66CD219C6DA84F91C0FB7CB58429EC8077E2A764314D55D	UCA Extended Validation Root
88	SHECA RSA Extended Validation Server CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Server CA O = UniTrust C = CN	3B4B252A77372AFCB97FEDA8BDAF2299FC5DC5F4	4FD6FA527157EEA463689D7A4C2B934EF222279725413893D9847242C85CA9DF	UCA Extended Validation Root
89	SHECA EV Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G3 O = UniTrust C = CN	54E972FB78669FE5CBF33B8F98465553739C0B84	7EF3F89456CE636557B20C5DFB37F98C253A0B660D2E9E5E7845CAF9C038C7C1	UCA Extended Validation Root
90	SHECA EV Code Signing CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA EV Code Signing CA G2 O = UniTrust C = CN	5007CC4DF6F4BA37FC13CE1F2D22C956D89EA503	DD84169585A2E7A216AECDD4083265A8EB51A64F7C6F1943671F8584C73F79A74	UCA Extended Validation Root
91	SHECA OV Server CA G6	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G6 O = UniTrust C = CN	FB7DCE4905B420BCFFBF0D8471ADAE0135F961A0	264DF1458FB5EF1FC9DF9F1345E84A6CC1A471CF475AE7598FF52B86713519FB	UCA Extended Validation Root
92	SHECA OV Server CA G7	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G7 O = UniTrust C = CN	A0F344BA17512C7776AB4442C5534B16AB5F0DAA	F6F8BCD413C9733166E85843B468DD36E727152D9A37B15129C0E7648ECEE639	UCA Extended Validation Root
93	SHECA Extended Validation SSL CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation SSL CA O = UniTrust C = CN	4D140DEA6B559C0CA6E1BB7BE86A966D175E7CB5	25BFDB1C5FE2CC E051EC6DFBF2BB24E78C92F969B1B B37867DAEDF93D1A7AE7E	UCA Extended Validation Root
94	SHECA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation Code Signing CA O = UniTrust C = CN	7498996F6A15C0062520851CAF2B316B87EDA3DB	A392C645B9A5AD6A214F19DE776346BC7DD6BB15818E433886DAC54EE6661852	UCA Extended Validation Root
95	SHECA EV Code Signing CA G3	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA G3 O = UniTrust C = CN	6D325FA74CC0EEC89B7C6A3C0F2E33CA55EB99A8	E00AC33AC715D8BC3B6607A4165AE8428F9274B4224AB3D8CF36E8C8D62834A3	UCA Extended Validation Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
96	UniTrust Event Certificate Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Event Certificate Root CA R1 O = UniTrust C = CN	D7418BEED45F C6E97D691086 08AC7EE48BA0 727E	3200B1BC5CF8F8B CoA382BD7809166 A221600747DEC38 6D2625959CD75A2 8212	UniTrust Event Certificate Root CA R1
97	SHECA Event Certificate CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA Event Certificate CA G1 O = UniTrust C = CN	2A4D7575347FF FB46A57513816 FFA99EEAAFo F4F	32AE6837AEF2DA BBC8C19385A57A1 9FC97F6BDB8384 B1ADCCDEAED3A 891A3AoF	UniTrust Event Certificate Root CA R1
98	Orient Fortune Securities Co., Ltd Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Orient Fortune Securities Co., Ltd Identity CA G1 O = 东方财富证券股份有限公司 C = CN	8F155742AFDF 87B618F8622D AB2E07091A79 6249	115250822139D3C6 A49C821ABB19630 FAC617190DAA3CF 7373D3C95F082CB DF7	UniTrust Event Certificate Root CA R1
99	Shanghai Eastmoney Futures Co., Ltd. Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Shanghai Eastmoney Futures Co., Ltd Identity CA G1 O = 上海东方财富期货有限公司 C = CN	D09AE4CC4499 268F8D72F837 89C45F3F11B7B A8D	B4800869058B4B7 4CA970B3414FEDE 2F676D 90F979E4961325A D72B13ABE8866	UniTrust Event Certificate Root CA R1
100	UniTrust Global Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Root CA R1 O = UniTrust C = CN	3CA061BoEFDA C6E8BB2DE156 A2EBBBB63D2 32381	81B35EFC42C7794 7209D76B51B5E7B 122CE78348AE8C4 525DC8D4B30289 E5385	UniTrust Global Root CA R1
101	SHECA DV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA DV Server CA 1A O = UniTrust C = CN	653740EoBBF4 3905206A8C9C AoACB3BBD69 68CAo	D3D4A040BB41A6 95A96E3AAD93814 CF7EF219D581920 6E947B44DCC5B8 E5E272	UniTrust Global Root CA R1
102	SHECA OV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA OV Server CA 1A O = UniTrust C = CN	8CD02E82008E E2DEFF71F61A1 05C74A826E85 8D1	9A3DBoFoFB0FF4 F974A4E0C510A7C 13D350485B1E6CD F5A899BB24DoF4 99E9BD	UniTrust Global Root CA R1
103	SHECA EV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Server CA 1A O = UniTrust C = CN	73E36DF62D86 2F57DF69A536 87231C85E0170 216	2F1CA1A5CoD7AE5 8C7ADFC69D4C57 EE815F39CoF3D1F 982E3AC76D25AB7 23995	UniTrust Global Root CA R1

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
104	SHECA Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing CA 1A O = UniTrust C = CN	21B34B4FC6DD33246E861BAC EBF182D7EFCA 2CDA	59E3EF6680BCCo B1162DED4929D37 E698C6A5CBEE075 Co3F1173AD653CF 91CED	UniTrust Global Root CA R1
105	SHECA EV Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA 1A O = UniTrust C = CN	510BE3C14EAB DFEA38FF434E 2C97339CoBFC 27A9	03E04A3C2B5200 BB27C679A372618 52BAC7D46F3F371 E4ECA80225AE28 8E4CFC	UniTrust Global Root CA R1
106	SHECA Time Stamping CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping CA 1A O = UniTrust C = CN	8FBFB44A46F6 47EDF6EB8A0 B5E160943089 6FA46	2DFDBF6CEC0587 B55F1300F109BC4 6EFD16BC7EB5F43 CAE563953D87C7B 432C4	UniTrust Global Root CA R1
107	UniTrust Global Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Root CA R2 O = UniTrust C = CN	E45366B7B7A4 E9D7CCC121E0 4ACFCCAC01BC 72BC	78919B35D1C61559 5A51328A5C54608 3B4D5320724A258 695B991F2F61C4D CC7	UniTrust Global Root CA R2
108	SHECA DV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV Server CA 2A O = UniTrust C = CN	A1221170BEC86 65F6ECB104C4 EDB38EA9C1F9 14D	69201DC24E4127F FA5B41A0DDF0A1 A005C00F334B003 F1008924CBF998E 1827C	UniTrust Global Root CA R2
109	SHECA OV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV Server CA 2A O = UniTrust C = CN	98CDEC338767 F39422373810B 735BA7C683A8 259	8E2CA2825C20398 04A7A1CC54B002E A1DB30AC489698F 039527BF1602132F 611	UniTrust Global Root CA R2
110	SHECA EV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV Server CA 2A O = UniTrust C = CN	44661C71EF69B 7930AB5B771D 83B114CFA843 D77	93E49170D20F54D A701118A5ABDCD DA4FFCF334CDB2 D8D80599AB6284 8C85F80	UniTrust Global Root CA R2
111	UniTrust Global Root CA R3	Root Key	SM2	256 bits	CN = UniTrust Global Root CA R3 O = UniTrust C = CN	3B15E62B1C9F5 015B64EA16D16 3A558AF4905F B5	6A19BCC7FAD2A56 64F779BF143A72A 2B079AC476E56FA CBA48C352635CB4 718F	UniTrust Global Root CA R3
112	SHECA DV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA DV Server CA 3A O = UniTrust C = CN	26924A66CDED A9AD2DD7DoA E53C5DE95436 A2C61	E464F2E140327DA 8326C53A2FBA322 F183E6DEFC56888 Ao811195265650BC AD1	UniTrust Global Root CA R3
113	SHECA OV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA OV Server CA 3A O = UniTrust C = CN	6F465A89CFB1 74BB558EB3A5 6D08093233E3 6D2F	19B057AB0827E37 C8EB2EA7C04292 068A253A3BEDCo C45848881CoBA78 E717CF	UniTrust Global Root CA R3

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
114	SHECA EV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA EV Server CA 3A O = UniTrust C = CN	988B07A078C9 7576AF0CA1A72 3E87F4E9B482 689	7F4A5FBCA47F890 4DoAEA5D3BFA57 59C4768BA6510EB 1FEB5E5B076D129 07741	UniTrust Global Root CA R3
115	UniTrust Global Code Signing ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Code Signing ECC Root CA R2 O = UniTrust C = CN	D6E2F5C7B440 515C5A3A5C49 0EFCB8C23950 3CDB	8854E81F9C6B47E 438BBAE17E41F8B E4E68589AFD31A4 8BEE3F203F6DD3 DA517	UniTrust Global Code Signing ECC Root CA R2
116	SHECA Code Signing ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA Code Signing ECC CA 2A O = UniTrust C = CN	3A5576122E385 EB715671EE385 BF1E3D0AC77A 1A	953707AE07AF349 70462E8C02AC3D1 0949D3684D06338 5277F31869508007 D23	UniTrust Global Code Signing ECC Root CA R2
117	SHECA EV Code Signing ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV Code Signing ECC CA 2A O = UniTrust C = CN	BFAE7906E977 6B61D01E45799 86F2698B66DF 25E	545BD126658352B 306EE74185173F17 74A79467A26E9BB 6AE0ED44D86615 DE5A	UniTrust Global Code Signing ECC Root CA R2
118	UniTrust Global Code Signing RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Code Signing RSA Root CA R1 O = UniTrust C = CN	60C14C87BDAA B27B678E4EA7 921C519B481BA 860	6357353A4BBCA3D 5A158C95BE9DC90 F0B3E2F6A6310FD 5371FCB4C41E5E1B B4C	UniTrust Global Code Signing RSA Root CA R1
119	SHECA Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing RSA CA 1B O = UniTrust C = CN	046DED1C4A44 C827558CD17D 7B17CC0C53957 9DE	4C5F7C561295B97F E7616389A2B549A 0D4598D0BD15EB FEA53AB518714CB 8434	UniTrust Global Code Signing RSA Root CA R1
120	SHECA EV Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing RSA CA 1B O = UniTrust C = CN	7E2561771672A EE063F1C07B7 CAC6F3AAE44C DC3	A85CBD3FD9F3BF E220DE0A09B52D 5AA6F627EE9297F EFCE8706073A41B 993C79	UniTrust Global Code Signing RSA Root CA R1
121	UniTrust Global SMIME ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global SMIME ECC Root CA R2 O = UniTrust C = CN	2D4D94407CFF C45D4357F1905 57448CF6CBEA 343	6F4E2464D216A1E 0B558BB204259B4 A545AEB948957AA 3EAF11B2F4DE1AF EF10	UniTrust Global SMIME ECC Root CA R2
122	SHECA IV SMIME ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA IV SMIME ECC CA 2A O = UniTrust C = CN	EBC1D6F67F29 09A9928A90B4 295818A02F3C AF1B	E82D794C1AC79F9 BEBF3B6D98A237 F84C15FD40C3AB B86C2214E699414 F8FF54	UniTrust Global SMIME ECC Root CA R2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
123	SHECA MV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA MV SMIME ECC CA 2A O = UniTrust C = CN	FE0328035B693E5EDC5FAE0B742735DCC38C66Fo	D7C4AB9D315AE8B889DA902C55264295D8CDC0F5471370490F4D4585E2C3C6D3	UniTrust Global SMIME ECC Root CA R2
124	SHECA OV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA OV SMIME ECC CA 2A O = UniTrust C = CN	BD34144476B06DoF264C3CA9C349AC7153D4EF55	229B7FBCA2361DE63171067DE91DFFB3D2FA71A5ABE51CA41D5300C5750D2FoE	UniTrust Global SMIME ECC Root CA R2
125	UniTrust Global SMIME RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global SMIME RSA Root CA R1 O = UniTrust C = CN	DF08E3E977C1FoFBF5F8D419504C7719F206CBA3	FoF255ADA2A643CoA1E7C8F54F3ED3DD25EF0E7378E76F7C127517ECFD952803	UniTrust Global SMIME RSA Root CA R1
126	SHECA IV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA 1A O = UniTrust C = CN	D38BCDC445B1E8DoAFDD8BE8E4A6B5B30A71EF4E	82BA6F1067468383757DF53F1628258043BBB972E1CAD31FD7AADoADD66A5B53	UniTrust Global SMIME RSA Root CA R1
127	SHECA MV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA 1A O = UniTrust C = CN	5A4AEFED9AE84052DA320BBB32C4E529ECD C5255	92148A115D26B287254B36164164B2220EE36B405D3B708CF5B7AB060C66B1FE	UniTrust Global SMIME RSA Root CA R1
128	SHECA OV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA 1A O = UniTrust C = CN	Co61C3D053C9F412C5C9192DBB638305E4CA7EF8	6B661B964F2359C4CA68355243A2EEEDA9BACDA191D103AoC1119EC892018AC7	UniTrust Global SMIME RSA Root CA R1
129	UniTrust Global Time Stamping ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global Time Stamping ECC Root CA R2 O = UniTrust C = CN	C20E70D5E4015590A717B62DDDB5389D7627A1B7	90711D905CFF3C773A7320B5188A960C8A7D9E5966FA73284D64A4BF3E2FDA48	UniTrust Global Time Stamping ECC Root CA R2
130	SHECA Time Stamping ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA Time Stamping ECC CA 2A O = UniTrust C = CN	41315BE8FD8C3C65630168307AoB30EC097F1069	0E3FC096DDCC3205047F9042D57882A1144107243C47CDE6FFFDE403A5B7CA04	UniTrust Global Time Stamping ECC Root CA R2
131	UniTrust Global Time Stamping RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Time Stamping RSA Root CA R1 O = UniTrust C = CN	DA891E9DC30F38DAB0896CCDC5FDD7504F155B30	1759727D9E6679B069DD3AFA910E2779C42007AAB206A169C66E6E2A3D1774Bo	UniTrust Global Time Stamping RSA Root CA R1

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
132	SHECA Time Stamping RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping RSA CA 1B O = UniTrust C = CN	CC140216769CC1FCECFCA02C90C63AB0B6A36181	9A46D52BoF6A913E6BF3EE6DCFE08B2664DEE2AF704FD4931E8DoC38F3D76D00	UniTrust Global Time Stamping RSA Root CA R1
133	UniTrust Global TLS ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global TLS ECC Root CA R2 O = UniTrust C = CN	7935AD798A95305C3E05A675161A97000F6FC90	6C689FC6B014A1FBoCDEB5A3996171C15E7286106028532E0210CEA8D9CD4E97	UniTrust Global TLS ECC Root CA R2
134	SHECA DV TLS ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA DV TLS ECC CA 2A O = UniTrust C = CN	CB65E62F50175F2C172B433F3A043CD213569A66	D690D8722EA89CD7617901449520653339386AC4939F7EC5C1B195D9C3C95FA4	UniTrust Global TLS ECC Root CA R2
135	SHECA EV TLS ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA EV TLS ECC CA 2A O = UniTrust C = CN	B353900B5E40A4952EA85A27F413ABBAD631F233	05E4C4B1F258030690E6793C9C13C6F6AE234F68E5C41236FDC919B7F589032F	UniTrust Global TLS ECC Root CA R2
136	SHECA OV TLS ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA OV TLS ECC CA 2A O = UniTrust C = CN	A065578C43B2546C4E18DF86AED56725A9B7659C	08BA64405A3406C97BDCBD0E44224E6DD341F3EC93F1368457DFA7CAC88BE150	UniTrust Global TLS ECC Root CA R2
137	UniTrust Global TLS RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global TLS RSA Root CA R1 O = UniTrust C = CN	F2ADBFA6708F09672E633D65175A24759C900C4	4BABE0E9328D5DAE17936F3DDAA2442BFBDD0873F92FB8D1FBBBD3D9894649AD9	UniTrust Global TLS RSA Root CA R1
138	SHECA DV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA DV TLS RSA CA 1A O = UniTrust C = CN	C5E3A87F7EEDBC3E7108B34EF490EF2F2F1367D1	FFABEA74895DC0C78C224597472CF6937E0D740EF49DC2256C8E75A2A2A15EDE	UniTrust Global TLS RSA Root CA R1
139	SHECA EV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA EV TLS RSA CA 1A O = UniTrust C = CN	60651A135EAB2B98A5A1041B3057A1D02FC612E5	B2525A5966CA68CA7F504F0A21FD73847D174F89B48852A3E970588E1EAF774	UniTrust Global TLS RSA Root CA R1
140	SHECA OV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV TLS RSA CA 1A O = UniTrust C = CN	F463091C1E2788B75DBBE91644B1744A34F34B46	7F8EF707C2D9A4B7D4ED5FDDC8AF4A64D99BF297D03F8F01C4375DE74B1C7DE1	UniTrust Global TLS RSA Root CA R1

Attachment B - Publicly disclosed incidents

The list of incidents disclosed publicly during the period from April 1, 2024 to March 31, 2025 is as follow:

Bugzilla ID	Disclosure	Publicly Disclosed Link
1902592	SHECA: EV certificate subject RDN order is incorrect	Bugzilla Ticket Link
1902947	SHECA: The certificate's cpsURI is empty	Bugzilla Ticket Link
1914365	SHECA: CRLReason code usage error	Bugzilla Ticket Link
1946921	SHECA: DV SSL certificate format is abnormal	Bugzilla Ticket Link

注册会计师独立鉴证报告

（注意：本中文报告只作参考。正文请参阅英文报告。）

致：上海市数字证书认证中心有限公司（简称“SHECA”）管理层

范围

我们接受委托，对后附 SHECA 于 2024 年 4 月 1 日至 2025 年 3 月 31 日期间于中国上海（包括设施 1 和设施 2）运营的电子认证服务管理层认定执行了合理保证的鉴证业务。对于附录 A 中所包括的根证书和中级证书，SHECA：

- 披露电子认证业务、密钥生命周期管理、证书生命周期管理，以及 CA 环境控制管理于：
 - [UniTrust证书认证业务规则 v3.7.9](#);
 - UniTrust证书认证业务规则 v3.7.8;
 - UniTrust证书认证业务规则 v3.7.7;
 - [UniTrust证书策略 v1.5.7](#);
 - UniTrust证书策略 v1.5.6;
 - UniTrust证书策略 v1.5.5;
 - [UniTrust事件证书策略&认证业务规则 v1.8](#);以及
 - UniTrust事件证书策略&认证业务规则 v1.7,
- 通过有效控制机制，以提供以下合理保证：
 - SHECA的CPS与CP相符;
 - SHECA遵循CP和CPS提供电子认证服务，
- 通过有效控制机制，以提供以下合理保证：
 - 有效维护所管理的密钥与证书在生命周期中的完整性;
 - 建立并保护所管理的订户密钥和订户证书在生命周期中的完整性;
 - 恰当地鉴证（SHECA所执行的注册操作）订户证书申请者的信息；以及
 - 中级CA证书请求是准确、经鉴证并通过批准的，
- 通过有效控制机制，以提供以下合理保证：
 - 对CA系统和数据的逻辑和物理访问仅限于授权的个人;
 - 保持密钥和证书管理操作的连续性；以及
 - CA系统的开发，维护和操作得到适当的授权和执行，以维持CA系统的完整，

以符合 [WebTrust电子认证审计标准 v2.2.2](#)。

SHECA 遵守所披露的业务规则委托外部用户注册机构（ External Registration Authorities）对个别用户进行用户信息鉴定工作。我们的鉴证程序并不伸延至这些外部用户注册机构所实施的控制措施。

SHECA 不提供 CA 密钥托管服务，并且不提供证书挂起服务。因此，我们的报告范围不会覆盖到这些控制点。

管理层的责任

SHECA 的管理层负责确保管理层认定，包括其陈述的客观性以及认定中描述 SHECA 所提供的服务能够符合 WebTrust 电子认证审计标准 v2.2.2 的规定。

我们的独立性和质量管理

我们遵守了国际会计师职业道德准则理事会颁布的执业会计师道德守则中的独立性及其他职业道德要求。该职业道德守则以诚信、客观、专业胜任能力及应有的关注、保密和良好职业行为为基本原则。

本事务所遵循国际质量管理准则第 1 号，该准则要求事务所设计、实施并执行质量管理体系，包括与遵守职业道德要求、专业标准和适用的法律和法规要求的政策或程序。

注册会计师的责任

我们的责任是在执行鉴证工作的基础上对管理层认定发表意见。

我们根据《国际鉴证业务准则第 3000 号(修订版)——历史财务信息审计或审阅以外的鉴证业务》的规定执行了鉴证工作。该准则要求我们计划和实施工作，以形成鉴证意见。

合理保证的鉴证业务涉及实施鉴证程序，以获取有关管理层认定是否在所有重大方面符合 WebTrust 电子认证审计标准 v2.2.2 的充分、适当的证据。选择的鉴证程序取决于注册会计师的判断及我们对项目风险的评估。

在我们的工作范围内，我们实施了包括（1）了解 SHECA 密钥和证书生命周期管理及对密钥和证书完整性的控制措施，包括订户和依赖方信息的真实性和保密性，密钥和证书生命周期管理的连续性，以及系统开发、运维的完整性；（2）测试业务操作是否遵守了所披露的证书生命周期管理；（3）测试和评估控制活动执行的有效性；以及（4）执行其他我们认为必要的鉴证程序。

SHECA 的内部控制的有效性和重要性，及其对用户及相关依赖方的控制风险评估所产生的影响，取决于控制间的相互作用以及其他存在于每个用户和相关依赖方的因素。我们并没有对用户和依赖方所负责的控制的有效性进行任何评估工作。

我们相信，我们获取的证据是充分、适当的，为发表鉴证意见提供了基础。

固有限制

由于内部控制体系本身的限制，SHECA 满足上述要求的能力可能会受到影响，例如：控制可能未达到预防、发现或纠正错误、舞弊、对系统或信息的未授权访问，或违反内外部制度或规定的要求。此外，风险的变化可能会影响本评估报告在将来时间的参考价值。

意见

我们认为，SHECA 于 2024 年 4 月 1 日至 2025 年 3 月 31 日期间的电子认证服务的管理层认定在所有重大方面符合 WebTrust 电子认证资格原则及规范 v2.2.2。

强调事项

我们提请使用者关注，本报告并不包括任何在 WebTrust 电子认证资格原则及规范 v2.2.2 以外的质量标准声明，或对任何客户对 SHECA 服务的合适性声明。本段内容不影响已发表的鉴证意见。

其他事项

UniTrust Global Root CA R1（附录 A #100），UniTrust Global Root CA R2（附录 A #107），UniTrust Global Root CA R3（附录 A #111），UniTrust Global Code Signing ECC Root CA R2（附录 A #115），UniTrust Global SMIME ECC Root CA R2（附录 A #121），UniTrust Global Time Stamping ECC Root CA R2（附录 A #129）UniTrust Global TLS ECC Root CA R2（附录 A #133），和 UniTrust Global TLS RSA Root CA R1（附录 A #137）在 2024 年 4 月 1 日至 2025 年 3 月 31 日期间未颁发证书，仅保持在线以提供吊销状态信息。

在 2024 年 4 月 1 日至 2025 年 3 月 31 日期间，SHECA 管理层披露了 4 起事件（见附录 B）。SHECA 所采取的补救措施和这些事件的根本原因已在 Bugzilla 网站的在线论坛以及组成 CA/Browser 论坛的各个互联网浏览器的在线论坛上公开发布。本段内容不影响已发表的鉴证意见。

目的及使用和分发限制

管理层认定为在 SHECA 网站¹上获取并展示 WebTrust Seal 编制，并采用为该目的而设计的 WebTrust 电子认证审计标准 v2.2.2，因此 SHECA 管理层认定可能不适用于其他目的。本报告仅向 SHECA 管理层出具，用作向 WebTrust 电子认证审计标准 v2.2.2 相关机构提交报告后，在 SHECA 网站上获取并展示 WebTrust Seal，不应向任何其它方分发或为其他目的使用。我们不会就本报告的内容向任何其他人士负上或承担任何责任。

WebTrust seal的使用

¹ SHECA 网站维护和网站的真实完整是公司管理层的职责。我们执行的鉴证程序不包含对该等事项的考虑，因此，对出具本鉴证报告所依赖的 SHECA 管理层认定或鉴证报告与网站所显示信息的任何差异我们均不承担责任。



羅兵咸永道

在 SHECA 网站上的 WebTrust 电子认证标识是本报告内容的一种符号表示，它并不是为了也不应被认为是对本报告的更新或任何进一步的保证。

罗兵咸永道会计师事务所
注册会计师

香港，2025 年 5 月 9 日



附录 A:

下表列示了2024年4月1日至2025年3月31日期间本报告范围内的密钥和证书:

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
1	UCA Root G2	Root Key	sha256RSA	2048 bits	CN = UCA Root G2 O = UniTrust C = CN	E4BB2C9FB2B51C8831AF7FCBDCF4052BE085F701	A07919A6391BCD6E15FB33A41B43A938EF3D19CF54F0198EC29D02364BC5AoEC	UCA Root G2
2	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	69275DE8AF892E26E1B5339A664C194550799372F13CA6FB4966408F6A43C5B4	UCA Root G2
3	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	23434A3078ADBE51DF267504F5655107ED1AA4E555D3DF21F479F1B4E4610Ao8	UCA Root G2
4	GlobalSign China CA for AATL	Signing Key	sha256RSA	2048 bits	CN = GlobalSign China CA for AATL O = GlobalSign China L = Shanghai S = Shanghai C = CN	FCAD8AADBF323AFF97C09BD74A7039888919D46A	D883436D97Bo8B008810D2EF3852D322E1D3528C751D3B23FF0C80803ED1CFAE	UCA Root G2
5	UCA Root SM2	Root Key	SM2	256 bits	CN = UCA Root SM2 O = UniTrust C = CN	EEE8B09CD5DCEC73FDEF7CFA502CC6C140E64CB3	307C77562B1532AE5FA6E63ED597CD54A0CBCC111F3598A7CCB2E19DD1351362	UCA Root SM2
6	UniTrust DV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust DV Secure Server CA G4 O = UniTrust C = CN	ADA611696054F898CED269542A29DF239484E833	68B5E5FCA21925C5AF6628341FE6DBD187C6E66AEEF5F58295DCD7238FF56AD8	UCA Root SM2
7	UniTrust OV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust OV Secure Server CA G4 O = UniTrust C = CN	D6546FA6587275420BF204794C4C6DE4368A8BD5	E75A9D14B5C5FF14779FoDC8A7889EE75778DC82706D95B4E2AF03909FA72C	UCA Root SM2
8	SHECA SM2	Signing Key	SM2	256 bits	CN = SHECA SM2 O = UniTrust C = CN	893104917B43AAA9ABF841D9B86EEFoB87099Ao	F5F6192276AED2141B3A66FD66724D46C5A58CACF618CAA5B5AA546ED5865207	UCA Root SM2

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
9	TrustAsia SM2 DV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	1B40CF756BB3E9D42B6AEoC CA449D5A26FE48F2A	FB812E1561383E0020103977D7E64D18B3587BC092F9DEC67600DE2A8493352C	UCA Root SM2
10	TrustAsia SM2 OV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	3623100989022D63A4C9E816BC531490AA2A01F7	2DBE68A196611EC658022F62607FBC0AA2000FD3147028EB2B16355B6D296EDF	UCA Root SM2
11	TrustAsia SM2 Identity CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 Identity CA - S1 O = TrustAsia Technologies, Inc. C = CN	73075D5EFBF48320ED005F013AD1930E3FF432F2	BACE521585871388E4B3ECF44B5B4A965CCFD995C72D8813B61E643C77F1298D	UCA Root SM2
12	SHECA SM2 Identity CA G1	Signing Key	SM2	256 bits	CN = SHECA SM2 Identity CA G1 O = UniTrust C = CN	687C2F9B2E68A2DFCE11115411A6B60E6CEE2520	490BA44A5C4061D487EF1C945EC4889770A1F31299F0083045192D8978C25D7E	UCA Root SM2
13	CECloud Secure Server CA V1	Signing Key	SM2	256 bits	CN = CECloud Secure Server CA V1 O = 中国电子系统技术有限公司 C = CN	3D017054EBD1DAE2FA72558A7B4AD4112EC2789C	D973269DE727110F2577F12FC7039F204C8688F90479A60A6D918181E96BC921	UCA Root SM2
14	CT2 DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 DV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	4C1A3411A3416DE899A4B670626764EA7CF2A784	1D00F1814BB2A20D578BA255B6F80D6F831CA7302BE28E446FB2530BEE90CBEA	UCA Root SM2
15	CT2 OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 OV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	6C5DF638967FADECC1F4352AEE7B53772AD4AE56	68A9EC5F347044CA199D0C227BBFAF167FB19C9F1C2718ED1A0CBA53AA095B8B	UCA Root SM2

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
16	CT2 EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 EV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	34F2351E936044F2951DDE201F7FEBAAF61A1465	7FoCC711C115AEF7FE38707945FE116E11CDA4D39343A3194F01A01A6AFDA86A	UCA Root SM2
17	KeepTrust DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust DV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	343B9BF590205E0D98DA77EB32C59EF95397A96F	B5D123DF7246E26A98C1BF96B8EB817F3E4300F014818959353C6B1FBA603446	UCA Root SM2
18	KeepTrust OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust OV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	071E11176177C996A40ABC42F9789CBABD493114	003F65AF71B13A6E73081A44E4C14B5E3B60F02064285F00C46F93AD3A7F8769	UCA Root SM2
19	KeepTrust EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust EV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	7539B83459BDC90FDF2F9EB1777AB785A4B92DB3	18A4E716F150E9B98350502F9DB956CAA8A134F49C159BB4998AF0835010D139	UCA Root SM2
20	SHECA EV TLS SM2 CA G4	Signing Key	SM2	256 bits	CN = SHECA EV TLS SM2 CA G4 O = UniTrust C = CN	3FED031972F260AF185B2DD99735E1D7985C958D	6FF668D6CC32F96E56C776C49534A9698742C245396BE06029F1DF7F18B1D615	UCA Root SM2
21	DNSPod DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod DV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	7EA2D174C8475067B0780812F2D3F402E3D005A9	C1245B9C48D1B0889DE62D22092E20ECBBD150C8ACE738B9E495F41ADA782AAD	UCA Root SM2
22	DNSPod OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod OV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	BDF1F484808D223851B9C79662FC596F3DC820AA	8FDD10BD38AB8AA8C541CCFCC637F50F8B667E86C7DCAD02061614EAB53462E3	UCA Root SM2

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23	DNSPod EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod EV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	F6AEE376BEAF C14367FoC11D1 6A2A4A88D935 D8C	3A381E099528FCE C2D94B3433D469F 737543C0020C34E 46CAA9E4EFF288 A7AB2	UCA Root SM2
24	Keymatic Secure Domain SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Domain SM2 CA G1 O = PKI(Chongqin g) Limited C = CN	1064E31D47745 48526E2169E17 E0E4E58F672F E3	077114080656553F 7C2C0235311FAD3 BDA492958C2E2A E8E720960565AEB 9585	UCA Root SM2
25	Keymatic Secure Business SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Business SM2 CA G1 O = PKI(Chongqin g) Limited C = CN	E81A57AF0C01 5AC3731CF3912 F882D761C1408 DF	676224C3F6E4EFF 575F04073AC57AF D17C2A7D4270E5C 19BB284C738FoE3 C421	UCA Root SM2
26	Keymatic Secure Site EV SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Site EV SM2 CA G1 O = PKI(Chongqin g) Limited C = CN	547FF1C3D65B AEA46A9DACA DEA94E8E1874 9D4A6	3DA7919952037C7 D1F962A37A4EA90 26C8483C2C4AFE3 E756FD3345DCF6B C150	UCA Root SM2
27	sslTrus SM2 DV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 DV TLS CA G1 O = sslTrus C = CN	F921F5B4756F5 159429644147A 63F443195BAC9 A	BDE9CF0D1DoA60 EA891C037CBA7CC 0D6036B2140319C 7A80E46D9CA38F AC2C4E	UCA Root SM2
28	sslTrus SM2 OV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 OV TLS CA G1 O = sslTrus C = CN	DD18CA5E337D D2EECCF5AB16 14E3559B43CF CB32	6C25FD7209E6190 8919204027B8DEC C4AoC07469A99A5 3D66798FB96FF8A oEC7	UCA Root SM2
29	sslTrus SM2 EV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 EV TLS CA G1 O = sslTrus C = CN	EB3B9889FD7B 8E7161C4F4D7 D2C1BC73433A FA52	65F06D7C7332F18 4A36B5C8ABB2F6 FC4DECA45249958 6A29693C3A4BF6 D3955A	UCA Root SM2
30	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	9BEA11C976FE014 764C1BE56A6F914 B5A560317ABD998 8393382E516IAA0 493C	UCA Global G2 Root

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31	SHECA SMIME CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA SMIME CA G1 O = UniTrust C = CN	1FA80B4DCF9C A6A53ADAB09 6AB9957B90A9 B7F5D	8100D384D6C4529 883C37C37C68FD4 903C41CCBCB9033 A9C733A6AF0806E 1DE7	UCA Global G2 Root
32	SHECA RSA Code Signing CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Code Signing CA G3 O = UniTrust C = CN	FD7EC87AC277 1C5687D2AEF8 07C7426A1B7C4 2A8	C7E976AA77E9249 1C269840B2F1461E 65147A2BB181EE59 AB63BCD86704FE 456	UCA Global G2 Root
33	SHECA RSA Domain Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Domain Validation Server CA G3 O = UniTrust C = CN	057A4D756FFD 0A83B16716757 73E14C5F53C54 8E	0A552A65F22FF82 0E7EC3D43BBF88 B02ABC34BD247E 0C3505891B6342F1 6A5F2	UCA Global G2 Root
34	SHECA RSA Organization Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Organization Validation Server CA G3 O = UniTrust C = CN	316068091E32F 9F6CCC06215A A7B91AF4C119 D40	26FD4C4367E463D 39C71796AE4010E 53380DC93BC132F B019D6718A6873E 81F4	UCA Global G2 Root
35	SHECA RSA Time Stamp Authority G1	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Time Stamp Authority G1 O = UniTrust C = CN	6FC5770C4E82 5E4B544B30BD 9933F408571A3 DB4	86EE4A2F93137CA 8887674078B3940 70F189B3049DD2 D24053AE9292425 4C668	UCA Global G2 Root
36	SHECA DV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA DV Server CA G5 O = UniTrust C = CN	D8E7061B645F AB3008887A24 53AAE11C8304 BF6D	778C516DAEC700E E58B3581E411E5C 0DD478663A5163A 29895341507D6E9 64DD	UCA Global G2 Root
37	SHECA OV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G5 O = UniTrust C = CN	0379A38D525F D4E988921F43 58542502F4878 B7E	8AB3A0ACF289E6 EF754BE44923684 3D67F45C191BDDD 66484B85E6E6055 6A9AF	UCA Global G2 Root
38	SHECA EV Server CA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G2 O = UniTrust C = CN	86B148C0420A 9C6F81FC4FDC D10F184BAAB5 A6EA	4216527163AD2CA A825D3BF48F61A7 661DoABC89B58A B76B23A1E10999F 0769F	UCA Global G2 Root
39	SHECA Code Signing CA G4	Signing Key	sha256RSA	3072 bits	CN = SHECA Code Signing CA G4 O = UniTrust C = CN	73C3B39021CB F23BDA23D351 F295C58BC678 EE47	8FoC3E06A16E3EA 7C9B15A848076ED 15E51DA0B6F1AFA 274EDE2B9102191 FE0F	UCA Global G2 Root

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40	SHECA Time Stamping CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA Time Stamping CA G2 O = UniTrust C = CN	CFDD9E670A6CB17E2C1A4F595387B2369BF96994	422C71F8DB9FDA2C65458B52363DB6FDC4E37B436774B CF97518F3F42EC725F1	UCA Global G2 Root
41	TrustAsia RSA DV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	9432E0D48ACD1D93E75C5372960C5EF1F3F67972	074ADD7F1E73EB110EC8E2B78A92C51CF5A451135B6F7DEFC019EE9D74BFA4D6	UCA Global G2 Root
42	TrustAsia RSA OV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	F575D48E293E17A8A9C49EDCE6DB0A344D132AEB	D16BA9ACB74FEE4AA8087EE482E86E7F6F5F55FAC5025639730753FE1E705E3C	UCA Global G2 Root
43	SHECA Global G3 SSL	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 SSL O = UniTrust S = Shanghai C = CN	9820F0F1D942A6DE833F991019003D6868D20181	AEFFE4335EE56422E927F45E95AE142B9EB35979A7400569AE9BDEA6CAA BC1DC	UCA Global G2 Root
44	SHECA Global G3 Code Signing	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 Code Signing O = UniTrust S = Shanghai C = CN	F73DF939A8D98754AC778EF5D995EEF835AB9439	EAA5AD8E9A2FA992354B2FF4254BEBo8A632F7F17602604DDED58D73D616D844	UCA Global G2 Root
45	Xinnet DV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet DV SSL O = 北京新网数码信息技术有限公司 C = CN	9D3AA5B8E2212783643FF578DC22B04E6BCB36D4	9C53902F9501F6D89766999DBE2AD1A1436420B652535CDC2DC51CCFE2FFEE68	UCA Global G2 Root
46	Xinnet OV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet OV SSL O = 北京新网数码信息技术有限公司 C = CN	4B78C0324A2442784E9F83FoDoFE336C7EoD934F	3C07D7EFC8D458F668C10D4Fo6F90503CCD25D59E2B3F1D58B32884D9E4E3809	UCA Global G2 Root
47	SHECA MV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA G1 O = UniTrust C = CN	4F111E8FD4506500D7CE565190AF012BFB143845	Co64FAB74E8723164932A25CFB6708106E1E5A3A05CFD1079B1DCF52792C5908	UCA Global G2 Root

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48	SHECA IV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA G1 O = UniTrust C = CN	E010A54E644A8F605F134C5C108E742C0168B BE5	2A1AAA3E4D7C6E C8BE083BDBDD24 7153A88D51F1226F D9691B872AE23D1 66BFF	UCA Global G2 Root
49	SHECA OV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA G1 O = UniTrust C = CN	E3B8865D1EF2 FF2146219648B D54022EC93BC 85C	73BA9F7AE0924F3 567F0280568A705 0A58C9C4855DE0 686C2FDC48522EB 86D2D	UCA Global G2 Root
50	SHECA Code Signing CA G5	Signing Key	sha384RSA	3072 bits	CN = SHECA Code Signing CA G5 O = UniTrust C = CN	4CF2087E0172 B6CoA36E0655 BoF20C06293C E53F	51984B5D20306FE 69008A5B5EE5643 E5BF41644330910 653F00A21B609B2 D23	UCA Global G2 Root
51	JoySSL DV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA G1 O = JoySSL Limited C = CN	2A56E8EF40E0 A9999D6DD812 9FB79B056B88 2DED	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
52	JoySSL OV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA G1 O = JoySSL Limited C = CN	6BF2449C86D0 C6DED8510766 1B2748792342C B95	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
53	KeepTrust DV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	088B0DF30B09 66297021D02C 377300F5A7F4E 7E9	352582CCC85B394 4E3CD2505D9318F 22ABEA418BFF29A 0FE4D2CoDF280F 200E3	UCA Global G2 Root
54	KeepTrust OV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	F68D3850B96E A8BEFC50CA91 247F1ABC9EA3 9D4D	CD50559A6DC5C7 04237EABF9A070B 79FoCDFC1A79C3A 6AC8C5E71E295A0 65DoA	UCA Global G2 Root
55	ZoTrus RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA G1 O = ZoTrus Technology Limited C = CN	EC1EBCB71E09 2769EFA715E89 AA1677C33AA0 F5A	E7EF1AD946214B3 2AF03CC287930D0 464ED2C086D7A14 47C6E27FC9217D4 E16B	UCA Global G2 Root

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56	ZoTrus RSA OV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA G1 O = ZoTrus Technology Limited C = CN	AoFA64A37EB8 3C7C194C51B7F E6A2BE8A39F7 8A4	3EC123D71DB27AE 1DC8F877286C222 F4167A2AE4FD7BC F370789EF4A9521 B8	UCA Global G2 Root
57	JoySSL DV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA O = JoySSL Limited C = CN	807B3118B837D 850FD1C4AD98 79A5E426D00A 1A4	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
58	JoySSL OV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA O = JoySSL Limited C = CN	21507E5079E68 0B202CoFBC1A FAD8026DC52 B8DD	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
59	KeepTrust DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	5063446A28FA C2B3D5122D01 A63D9B858450 26CC	A879CB01A2661C2 55B9C2B9BE0B20 BA74EEA9546E21A 82C570E177CF5BF 4AEDA	UCA Global G2 Root
60	KeepTrust OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	04FA1B9DBC05 CD575CC6518D 5CDFE62CD151 BoC8	FFDoD9EEEEAFB B4C44F71392F20A 52E0F6589685493 3139640722DECFC 2D4658	UCA Global G2 Root
61	ZoTrus RSA DV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA O = ZoTrus Technology Limited C = CN	7FEF9BoB9EB3 F717A576BBC75 80209DE73154 4B7	69C25861236502F 0C223443FD851A2 FB6ACB745BB814A D72BB2E50867C52 C3BB	UCA Global G2 Root
62	ZoTrus RSA OV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA O = ZoTrus Technology Limited C = CN	E92D57AB2A44 55799E2579371 23588FCDF187 AC3	219C59CCD06D021 oADCF6E8125700 D1578F69A0670A0 7FD9DDE99E4AC8 2524CD	UCA Global G2 Root

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63	CT2 DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 DV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	8955C1DB0608F7A83C51CA3BF98F017B90098A73	4B316EDFC0780286571E430CoA94231B192B45666AF5DEBEE454FE08E4496383	UCA Global G2 Root
64	CT2 OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 OV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	27937BF574A8AF23A7F29E2B03CFACC7182B2EFA	A263B7CEFD1490D04FD0EC31D9695BAEE480EE861D12124C2BF8EBD8A893652F	UCA Global G2 Root
65	SHECA FREE DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA FREE DV TLS RSA CA G1 O = UniTrust C = CN	F18082839D6BB5C20A6A43C2D584A9F6F3EF2DC9	DFD9FB07A42E81216D6497FBC47BE53D829BBFD6A9188B02D5C8CDE29E01CF5C	UCA Global G2 Root
66	SHECA FREE DV TLS ECC CA G2	Signing Key	sha384RSA	384 bits	CN = SHECA FREE DV TLS ECC CA G2 O = UniTrust C = CN	84BCFE29594A85C0849FF0F21230812BE73F9BBC	81DB88F4CDE7345B0EC140E4A193720163DF9B787FABA0AF5A7EDACE6DC315A6	UCA Global G2 Root
67	SHECA DV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA DV TLS ECC CA G6 O = UniTrust C = CN	7E44A7C621F5F30E25293C07F288ECC82F7BD482	1F0570E418F9C89E094CB26EDA71B92BED81ACBB446B2300D398DDB739AB7A6C	UCA Global G2 Root
68	SHECA OV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA OV TLS ECC CA G6 O = UniTrust C = CN	2569CCEFD564A83BAC15284500F13D86104FEE0	C4DA2C937523D42054FBB4AF694BB90FC7743C910EE048726241BD84C38509D9	UCA Global G2 Root
69	DNSPod DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod DV TLS RSA CA G1 O = DNSPod, Inc. C = CN	4CF1C77BBB5F991923F8616FD712F9749C5AE55C	A07A7DEFCD1ED23F36D22AC33421F1D973583B12C96CA2496DE724C4494CoCD2	UCA Global G2 Root
70	DNSPod DV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod DV TLS ECC CA G1 O = DNSPod, Inc. C = CN	B9A7EB6345ADB88940892F8B69930658DA9733CF	AACCD77057271FF5F605DF8CC5A44397E71CCE796EA79B8F1E8658FC9CD52464	UCA Global G2 Root
71	DNSPod OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod OV TLS RSA CA G1 O = DNSPod, Inc. C = CN	38C22FB4856AB84A51911FE53A7FE2BE1103338F	F36592E33FD869E917E33BADE683A4EC20809D5C8B493A1427BA6DC066CB5AE3	UCA Global G2 Root

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
72	DNSPod OV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod OV TLS ECC CA G1 O = DNSPod, Inc. C = CN	586EA65733443 DCE3CED5DEB F47E000FoE81 B28D	8C4BFF9AE3F079E 50208F84E4DA658 AB441109686861FF CEE50D4A8662C2 EEA1	UCA Global G2 Root
73	Keymatic Secure Domain RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Domain RSA CA G1 O = PKI(Chongqin g) Limited C = CN	8ED096D6E8A 4D935F386EBD AoB592E40521 BoCBB	F3C9431A163BECE 79562093F0734DF 6ED05618551CFEE oABA949A77E959 D8AAE	UCA Global G2 Root
74	Keymatic Secure Domain ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Domain ECC CA G1 O = PKI(Chongqin g) Limited C = CN	C1286B590B198 916D776E6661E 57D4460812ED DF	B07D2ACA4F29E2 449B5ADB7CCB31C 64C43854044A2DA A2AC838788026C6 84CoC	UCA Global G2 Root
75	Keymatic Secure Business RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Business RSA CA G1 O = PKI(Chongqin g) Limited C = CN	5693F449C7E44 8C3C3D2BE863 97E33368163A3 77	5523644185E21EF9 43A505A1C438167 DA1FE7B14BEF2D2 43E53DE8C2B4263 EB7	UCA Global G2 Root
76	Keymatic Secure Business ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Business ECC CA G1 O = PKI(Chongqin g) Limited C = CN	23368DE013A9 BB36D76A66E1 128EDA5F4A36 20D5	75C4AF6628E7D01 DD369593EFD727 E3560ED9DDD67B 04325655821BD23 281A2B	UCA Global G2 Root
77	sslTrus RSA DV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA DV TLS CA G2 O = sslTrus C = CN	DEE386BAC52 E630164E0C142 943C3202967C6 891	B3A5BED750BCE5 Ao8C75E0012BoA6 A67954952BC8D12 520514CC15CBBoB 17039	UCA Global G2 Root
78	sslTrus ECC DV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC DV TLS CA G2 O = sslTrus C = CN	624679EBA47F FA4CD98D6FF FDE6D6F7FE49 E86E9	32CAA961415106CF 471CEA5B15C6646 4A907C99861A297 C359D174624BADB 92F	UCA Global G2 Root

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79	sslTrus RSA OV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA OV TLS CA G2 O = sslTrus C = CN	oEDFB6894806 4E10818E3C810 8C824BB8B308 F62	F0E647B5A2869A3 487507A90549AF0 39896DB8BoFoE7 CF92EF3AB567F3E C5E5C	UCA Global G2 Root
80	sslTrus ECC OV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC OV TLS CA G2 O = sslTrus C = CN	BEE114C1BEF8 4DA5E3D4E41F CA0D1F81A90C oFEo	06B7E611243D2901 B964FF6DoC53A2 DB52BA2E1D41E17 D74950E16605D9A 2C90	UCA Global G2 Root
81	HTTPS Automatio n Research RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = HTTPS Automation Research RSA DV SSL CA G1 O = Shenzhen Yamu Security Technology Co., Ltd. C = CN	oFB6A84D71E5 B1B38F9E72D6 BBC06A147FE4 Do3B	1E426FFoF51EB4C 285788B4418D2DA B21097230CED8111 9BA178A20AB1AAB F67	UCA Global G2 Root
82	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	C1AFC65B1E813B0 E6146E6AA5341681 272ABE9A38D59F7 BD1B27B729834A0 D9C	Certum Trusted Network CA
83	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	3DD69C5BE170F94 3F804D1D31FE8F9 16C0C0226CDD7 AEA9AA9AoCDFD 3474361	Certum Trusted Network CA
84	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	BB61408AED9F530 B2EC0545E53BA2C 8EBEAA57D997644 7DB1663CED4600 CD6B7	Certum Trusted Network CA
85	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	BFA95C5DF164B65 9FA32F6D10564D7 170DDE661A853A7 82E6AB63639433B CB41	Certum Trusted Network CA
86	UCA Extended Validation Root	Root Key	sha256RSA	4096 bits	CN = UCA Extended Validation Root O = UniTrust C = CN	D9743AE4303D oDF712DC7E5A 059F1E349AF7 E114	D43AF9B35473755 C9684FC06D7D8C B70EE5C28E773FB 294EB41EE7172292 4D24	UCA Extended Validation Root
87	SHECA RSA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Code Signing CA O = UniTrust C = CN	8E40665F6AA9 40C2B9F1F04A 2263956459370 7E5	D404FAFA4BA2F4 26B66CD219C6DA 84F91CoFB7CB584 29EC8077E2A7643 14D55D	UCA Extended Validation Root

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
88	SHECA RSA Extended Validation Server CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Server CA O = UniTrust C = CN	3B4B252A77372AFCB97FEDA8BDAF2299FC5DC5F4	4FD6FA527157EEA463689D7A4C2B934EF222279725413893D9847242C85CA9DF	UCA Extended Validation Root
89	SHECA EV Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G3 O = UniTrust C = CN	54E972FB78669FE5CBF33B8F98465553739CoB84	7EF3F89456CE636557B20C5DFB37F98C253A0B660D2E9E5E7845CAF9Co38C7C1	UCA Extended Validation Root
90	SHECA EV Code Signing CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA EV Code Signing CA G2 O = UniTrust C = CN	5007CC4DF6F4BA37FC13CE1F2D22C956D89EA503	DD84169585A2E7A216AECDA4083265A8EB51A64F7C6F1943671F8584C73F79A74	UCA Extended Validation Root
91	SHECA OV Server CA G6	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G6 O = UniTrust C = CN	FB7DCE4905B420BCFFBF0D8471ADAE0135F961A0	264DF1458FB5EF1FC9DF9F1345E84A6CC1A471CF475AE7598FF52B86713519FB	UCA Extended Validation Root
92	SHECA OV Server CA G7	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G7 O = UniTrust C = CN	A0F344BA17512C7776AB4442C5534B16AB5FoDAA	F6F8BCD413C9733166E85843B468DD36E727152D9A37B15129CoE7648ECE639	UCA Extended Validation Root
93	SHECA Extended Validation SSL CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation SSL CA O = UniTrust C = CN	4D140DEA6B559CoCA6E1BB7BE86A966D175E7CB5	25BFDB1C5FE2CC E051EC6DFBF2BB24E78C92F969B1B B37867DAEDF93D1A7AE7E	UCA Extended Validation Root
94	SHECA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation Code Signing CA O = UniTrust C = CN	7498996F6A15C0062520851CAF2B316B87EDA3DB	A392C645B9A5AD6A214F19DE776346BC7DD6BB15818E433886DAC54EE6661852	UCA Extended Validation Root
95	SHECA EV Code Signing CA G3	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA G3 O = UniTrust C = CN	6D325FA74CCoEEC89B7C6A3CoF2E33CA55EB99A8	E00AC33AC715D8BC3B6607A4165AE8428F9274B4224AB3D8CF36E8C8D62834A3	UCA Extended Validation Root
96	UniTrust Event Certificate Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Event Certificate Root CA R1 O = UniTrust C = CN	D7418BEED45FC6E97D69108608AC7EE48BA0727E	3200B1BC5CF8F8BCoA382BD7809166A221600747DEC386D2625959CD75A28212	UniTrust Event Certificate Root CA R1

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97	SHECA Event Certificate CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA Event Certificate CA G1 O = UniTrust C = CN	2A4D7575347FF FB46A57513816 FFA99EEAAFo F4F	32AE6837AEF2DA BBC8C19385A57A1 9FC97F6BDB8384 B1ADCCDEAED3A 891A3AoF	UniTrust Event Certificate Root CA R1
98	Orient Fortune Securities Co., Ltd Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Orient Fortune Securities Co., Ltd Identity CA G1 O = 东方财富证券股份有限公司 C = CN	8F155742AFDF 87B618F8622D AB2E07091A79 6249	115250822139D3C6 A49C821ABB19630 FAC617190DAA3CF 7373D3C95F082CB DF7	UniTrust Event Certificate Root CA R1
99	Shanghai Eastmoney Futures Co., Ltd. Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Shanghai Eastmoney Futures Co., Ltd Identity CA G1 O = 上海东方财富期货有限公司 C = CN	D09AE4CC4499 268F8D72F837 89C45F3F11B7B A8D	B4800869058B4B7 4CA970B3414FEDE 2F676D 90F979E4961325A D72B13ABE8866	UniTrust Event Certificate Root CA R1
100	UniTrust Global Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Root CA R1 O = UniTrust C = CN	3CA061BoEFDA C6E8BBB2DE156 A2EBBBB63D2 32381	81B35EFC42C7794 7209D76B51B5E7B 122CE78348AE8C4 525DC8D4B30289 E5385	UniTrust Global Root CA R1
101	SHECA DV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA DV Server CA 1A O = UniTrust C = CN	653740EoBBF4 3905206A8C9C AoACB3BBD69 68CAo	D3D4A040BB41A6 95A96E3AAD93814 CF7EF219D581920 6E947B44DCC5B8 E5E272	UniTrust Global Root CA R1
102	SHECA OV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA OV Server CA 1A O = UniTrust C = CN	8CD02E82008E E2DEFF71F61A1 05C74A826E85 8D1	9A3DBoFoFB0FF4 F974A4E0C510A7C 13D350485B1E6CD F5A899BB24DoF4 99E9BD	UniTrust Global Root CA R1
103	SHECA EV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Server CA 1A O = UniTrust C = CN	73E36DF62D86 2F57DF69A536 87231C85E0170 216	2F1CA1A5CoD7AE5 8C7ADFC69D4C57 EE815F39CoF3D1F 982E3AC76D25AB7 23995	UniTrust Global Root CA R1
104	SHECA Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing CA 1A O = UniTrust C = CN	21B34B4FC6DD 33246E861BAC EBF182D7EFCA 2CDA	59E3EF6680BCCo B1162DED4929D37 E698C6A5CBEE075 Co3F1173AD653CF 91CED	UniTrust Global Root CA R1



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#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
105	SHECA EV Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA 1A O = UniTrust C = CN	510BE3C14EABDFEA38FF434E2C97339CoBFC27A9	03E04A3C2B5200BB27C679A37261852BAC7D46F3F371E4ECA80225AE288E4CFC	UniTrust Global Root CA R1
106	SHECA Time Stamping CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping CA 1A O = UniTrust C = CN	8FBBF44A46F647EDF6EB8A0B5E1609430896FA46	2DFDBF6CEC0587B55F1300F109BC46EFD16BC7EB5F43CAE563953D87C7B432C4	UniTrust Global Root CA R1
107	UniTrust Global Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global Root CA R2 O = UniTrust C = CN	E45366B7B7A4E9D7CCC121E04ACFCCAC01BC72BC	78919B35D1C615595A51328A5C546083B4D5320724A258695B991F2F61C4DCC7	UniTrust Global Root CA R2
108	SHECA DV Server CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA DV Server CA 2A O = UniTrust C = CN	A1221170BEC8665F6ECB104C4EDB38EA9C1F914D	69201DC24E4127FA5B41A0DDF0A1A005C00F334B003F1008924CBF998E1827C	UniTrust Global Root CA R2
109	SHECA OV Server CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA OV Server CA 2A O = UniTrust C = CN	98CDEC338767F39422373810B735BA7C683A8259	8E2CA2825C2039804A7A1CC54B002EA1DB30AC489698F039527BF1602132F611	UniTrust Global Root CA R2
110	SHECA EV Server CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA EV Server CA 2A O = UniTrust C = CN	44661C71EF69B7930AB5B771D83B114CFA843D77	93E49170D20F54DA701118A5ABDCDDA4FFCF334CDB2D8D80599AB62848C85F80	UniTrust Global Root CA R2
111	UniTrust Global Root CA R3	Root Key	SM2	256 bits	CN = UniTrust Global Root CA R3 O = UniTrust C = CN	3B15E62B1C9F5015B64EA16D163A558AF4905FB5	6A19BCC7FAD2A5664F779BF143A72A2B079AC476E56FACBA48C352635CB4718F	UniTrust Global Root CA R3
112	SHECA DV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA DV Server CA 3A O = UniTrust C = CN	26924A66CDED A9AD2DD7DoAE53C5DE95436A2C61	E464F2E140327DA8326C53A2FBA322F183E6DEFC56888A0811195265650BCAD1	UniTrust Global Root CA R3
113	SHECA OV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA OV Server CA 3A O = UniTrust C = CN	6F465A89CFB174BB558EB3A56D08093233E36D2F	19B057AB0827E37C8EB2EA7C04292068A253A3BEDC0C45848881CoBA78E717CF	UniTrust Global Root CA R3
114	SHECA EV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA EV Server CA 3A O = UniTrust C = CN	988B07A078C97576AF0CA1A723E87F4E9B482689	7F4A5FBCA47F8904DoAEA5D3BFA5759C4768BA6510EB1FEB5E5B076D12907741	UniTrust Global Root CA R3

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115	UniTrust Global Code Signing ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global Code Signing ECC Root CA R2 O = UniTrust C = CN	D6E2F5C7B440515C5A3A5C490EFCB8C239503CDB	8854E81F9C6B47E438BBAE17E41F8BE4E68589AFD31A48BEE3F203F6DD3DA517	UniTrust Global Code Signing ECC Root CA R2
116	SHECA Code Signing ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA Code Signing ECC CA 2A O = UniTrust C = CN	3A5576122E385EB715671EE385BF1E3DoAC77A1A	953707AE07AF34970462E8C02AC3D10949D3684D063385277F31869508007D23	UniTrust Global Code Signing ECC Root CA R2
117	SHECA EV Code Signing ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA EV Code Signing ECC CA 2A O = UniTrust C = CN	BFAE7906E9776B61D01E4579986F2698B66DF25E	545BD126658352B306EE74185173F1774A79467A26E9BB6AE0ED44D86615DE5A	UniTrust Global Code Signing ECC Root CA R2
118	UniTrust Global Code Signing RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Code Signing RSA Root CA R1 O = UniTrust C = CN	60C14C87BDAA B27B678E4EA7921C519B481BA860	6357353A4BBCA3D5A158C95BE9DC90FoB3E2F6A6310FD5371FCB4C41E5E1B B4C	UniTrust Global Code Signing RSA Root CA R1
119	SHECA Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing RSA CA 1B O = UniTrust C = CN	046DED1C4A44C827558CD17D7B17CC0C539579DE	4C5F7C561295B97FE7616389A2B549A0D4598DoBD15EBFEA53AB518714CB8434	UniTrust Global Code Signing RSA Root CA R1
120	SHECA EV Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing RSA CA 1B O = UniTrust C = CN	7E2561771672AEE063F1C07B7CAC6F3AAE44CDC3	A85CBD3FD9F3BFE220DE0A09B52D5AA6F627EE9297FEFCE8706073A41B993C79	UniTrust Global Code Signing RSA Root CA R1
121	UniTrust Global SMIME ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global SMIME ECC Root CA R2 O = UniTrust C = CN	2D4D94407CFFC45D4357F190557448CF6CBEA343	6F4E2464D216A1E0B558BB204259B4A545AE948957AA3EAF11B2F4DE1AFE10	UniTrust Global SMIME ECC Root CA R2
122	SHECA IV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA IV SMIME ECC CA 2A O = UniTrust C = CN	EBC1D6F67F2909A9928A90B4295818A02F3CAF1B	E82D794C1AC79F9BEBF3B6D98A237F84C15FD40C3AB B86C2214E699414F8FF54	UniTrust Global SMIME ECC Root CA R2
123	SHECA MV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA MV SMIME ECC CA 2A O = UniTrust C = CN	FE0328035B693E5EDC5FAE0B742735DCC38C66Fo	D7C4AB9D315AE8B889DA902C55264295D8CDC0F5471370490F4D4585E2C3C6D3	UniTrust Global SMIME ECC Root CA R2

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124	SHECA OV SMIME ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV SMIME ECC CA 2A O = UniTrust C = CN	BD34144476B06DoF264C3CA9C349AC7153D4EF55	229B7FBCA2361DE63171067DE91DFFB3D2FA71A5ABE51CA41D5300C5750D2FoE	UniTrust Global SMIME ECC Root CA R2
125	UniTrust Global SMIME RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global SMIME RSA Root CA R1 O = UniTrust C = CN	DFo8E3E977C1FoFBF5F8D419504C7719F206CBA3	FoF255ADA2A643CoA1E7C8F54F3ED3DD25EFoE7378E76F7C127517ECFD952803	UniTrust Global SMIME RSA Root CA R1
126	SHECA IV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA 1A O = UniTrust C = CN	D38BCDC445B1E8DoAFDD8BE8E4A6B5B30A71EF4E	82BA6F1067468383757DF53F1628258043BBB972E1CAD31FD7AADoADD66A5B53	UniTrust Global SMIME RSA Root CA R1
127	SHECA MV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA 1A O = UniTrust C = CN	5A4AEFED9AE84052DA320BBB32C4E529ECD C5255	92148A115D26B287254B36164164B222oEE36B405D3B708CF5B7AB060C66B1FE	UniTrust Global SMIME RSA Root CA R1
128	SHECA OV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA 1A O = UniTrust C = CN	Co61C3Do53C9F412C5C9192DBB638305E4CA7EF8	6B661B964F2359C4CA68355243A2EEEDA9BACDA191D103AoC1119EC892018AC7	UniTrust Global SMIME RSA Root CA R1
129	UniTrust Global Time Stamping ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Time Stamping ECC Root CA R2 O = UniTrust C = CN	C2oE7oD5E401559oA717B62DDDB5389D7627A1B7	90711D9o5CFF3C773A732oB5188A96oC8A7D9E5966FA73284D64A4BF3E2FDA48	UniTrust Global Time Stamping ECC Root CA R2
130	SHECA Time Stamping ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA Time Stamping ECC CA 2A O = UniTrust C = CN	41315BE8FD8C3C6563o1683o7AoB3oEC097F1o69	oE3FC096DDCC32o5o47F9o42D57882A11441o7243C47CDE6FFFDE4o3A5B7CAo4	UniTrust Global Time Stamping ECC Root CA R2
131	UniTrust Global Time Stamping RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Time Stamping RSA Root CA R1 O = UniTrust C = CN	DA891E9DC3oF38DABo896CCDC5FDD75o4F155B3o	1759727D9E6679Bo69DD3AFA91oE2779C42o07AAB2o6A169C66E6E2A3D1774Bo	UniTrust Global Time Stamping RSA Root CA R1
132	SHECA Time Stamping RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping RSA CA 1B O = UniTrust C = CN	CC14o216769CC1FCECFCAo2C9oC63ABoB6A36181	9A46D52BoF6A913E6BF3EE6DCFEo8B2664DEE2AF7o4FD4931E8DoC38F3D76Doo	UniTrust Global Time Stamping RSA Root CA R1

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
133	UniTrust Global TLS ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global TLS ECC Root CA R2 O = UniTrust C = CN	7935AD798A95305C3E05A675161A97000F6FC C90	6C689FC6B014A1FBoCDEB5A3996171C15E7286106028532E0210CEA8D9CD4E97	UniTrust Global TLS ECC Root CA R2
134	SHECA DV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV TLS ECC CA 2A O = UniTrust C = CN	CB65E62F50175F2C172B433F3A043CD213569A66	D690D8722EA89CD7617901449520653339386AC4939F7EC5C1B195D9C3C95FA4	UniTrust Global TLS ECC Root CA R2
135	SHECA EV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV TLS ECC CA 2A O = UniTrust C = CN	B353900B5E40A4952EA85A27F413ABBAD631F233	05E4C4B1F258030690E6793C9C13C6F6AE234F68E5C41236FDC919B7F589032F	UniTrust Global TLS ECC Root CA R2
136	SHECA OV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV TLS ECC CA 2A O = UniTrust C = CN	A065578C43B2546C4E18DF86AED56725A9B7659C	08BA64405A3406C97BDCBD0E44224E6DD341F3EC93F1368457DFA7CAC88BE150	UniTrust Global TLS ECC Root CA R2
137	UniTrust Global TLS RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global TLS RSA Root CA R1 O = UniTrust C = CN	F2ADBFA6708F09672E633D65175A24759C900C4	4BABE0E9328D5DAE17936F3DDAA2442BFBDD0873F92FB8D1FBBDD3D9894649AD9	UniTrust Global TLS RSA Root CA R1
138	SHECA DV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA DV TLS RSA CA 1A O = UniTrust C = CN	C5E3A87F7EEDBC3E7108B34EF490EF2F2F1367D1	FFABEA74895DC0C78C224597472CF6937E0D740EF49DC2256C8E75A2A2A15EDE	UniTrust Global TLS RSA Root CA R1
139	SHECA EV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA EV TLS RSA CA 1A O = UniTrust C = CN	60651A135EAB2B98A5A1041B3057A1D02FC612E5	B2525A5966CA68CA7F504F0A21FD73847D174F89B48852A3E970588E1EAF C774	UniTrust Global TLS RSA Root CA R1
140	SHECA OV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV TLS RSA CA 1A O = UniTrust C = CN	F463091C1E2788B75DBBE91644B1744A34F34B46	7F8EF707C2D9A4B7D4ED5FDDC8AF4A64D99BF297Do3F8Fo1C4375DE74B1C7DE1	UniTrust Global TLS RSA Root CA R1



附录 B – 公开披露的事件

下表列示了 2024 年 4 月 1 日至 2025 年 3 月 31 日期间本报告范围内的公开披露事件：

Bugzilla ID	事件名称	事件链接
1902592	SHECA: EV certificate subject RDN order is incorrect	Bugzilla Ticket Link
1902947	SHECA: The certificate's cpsURI is empty	Bugzilla Ticket Link
1914365	SHECA: CRLReason code usage error	Bugzilla Ticket Link
1946921	SHECA: DV SSL certificate format is abnormal	Bugzilla Ticket Link



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PricewaterhouseCoopers
22/F, Prince's Building, Central, Hong Kong

9 May 2025

Dear Sirs,

Assertion of Management as to the Disclosure of Business Practices and Controls over the Certification Authority Operations during the period from April 1, 2024 through March 31, 2025

Shanghai Electronic Certificate Authority Co., Ltd. ("SHECA") operates the Certification Authority (CA) services known as its Root and Subordinate CAs (please refer to the Attachment A), and provides the following CA services:

- Subscriber registration
- Certificate renewal
- Certificate rekey
- Certificate issuance
- Certificate distribution
- Certificate revocation
- Certificate validation
- Subscriber key generation and management
- Subordinate CA certification

The management of SHECA is responsible for establishing and maintaining effective controls over its CA operations, including its CA business practices disclosure on its website, CA business practices management, CA environmental controls, CA key lifecycle management controls, subscriber key lifecycle management controls, certificate lifecycle management controls, and subordinate CA certificate lifecycle management controls. These controls contain monitoring mechanisms, and actions are taken to correct deficiencies identified.

There are inherent limitations in any controls, including the possibility of human error, and the circumvention or overriding of controls. Accordingly, even effective controls can only provide reasonable assurance with respect to SHECA's Certification Authority operations. Furthermore, because of changes in conditions, the effectiveness of controls may vary over time.

SHECA management has assessed its disclosures of its certificate practices and controls over its CA services. Based on that assessment, in SHECA management's opinion, in providing its Certification Authority (CA) services at Shanghai (including

Facility 1 and Facility 2), China, throughout the period April 1, 2024 to March 31, 2025, SHECA has:

- disclosed its business, key lifecycle management, certificate lifecycle management, and CA environment control practices in its:
 - [UniTrust Certification Practice Statement v3.7.9](#);
 - UniTrust Certification Practice Statement v3.7.8;
 - UniTrust Certification Practice Statement v3.7.7;
 - [UniTrust Certificate Policy v1.5.7](#);
 - UniTrust Certificate Policy v1.5.6;
 - UniTrust Certificate Policy v1.5.5;
 - [UniTrust Event Certification Policy & Certification Practice Statement v1.8](#); and
 - UniTrust Event Certification Policy & Certification Practice Statement v1.7
- maintained effective controls to provide reasonable assurance that:
 - SHECA's Certification Practice Statements are consistent with its Certificate Policies;
 - SHECA provides its services in accordance with its Certificate Policies and Certification Practice Statements
- maintained effective controls to provide reasonable assurance that:
 - the integrity of keys and certificates it manages is established and protected throughout their lifecycles;
 - the integrity of subscriber keys and certificates it manages is established and protected throughout their lifecycles;
 - subscriber information is properly authenticated (for the registration activities performed by SHECA); and
 - subordinate CA certificate requests are accurate, authenticated, and approved
- maintained effective controls to provide reasonable assurance that:
 - logical and physical access to CA systems and data is restricted to authorized individuals;
 - the continuity of key and certificate management operations is maintained; and
 - CA systems development, maintenance, and operations are properly authorized and performed to maintain CA systems integrity

in accordance with the [WebTrust Principles and Criteria for Certification Authorities v2.2.2](#), including the following:

CA Business Practices Disclosure

- Certification Practice Statement (CPS)
- Certificate Policy (CP)

CA Business Practices Management

- Certificate Policy Management
- Certification Practice Statement Management
- CP and CPS Consistency

CA Environmental Controls

- Security Management
- Asset Classification and Management

- Personnel Security
- Physical & Environmental Security
- Operations Management
- System Access Management
- System Development, Maintenance, and Change Management
- Disaster Recovery, Backups, and Business Continuity Management
- Monitoring and Compliance
- Audit Logging

CA Key Lifecycle Management Controls

- CA Key Generation
- CA Key Storage, Backup, and Recovery
- CA Public Key Distribution
- CA Key Usage
- CA Key Archival
- CA Key Destruction
- CA Key Compromise
- CA Cryptographic Hardware Lifecycle Management
- CA Key Migration

Subscriber Key Lifecycle Management Controls

- CA-Provided Subscriber Key Generation Services
- CA-Provided Subscriber Key Storage and Recovery Services
- Integrated Circuit Card (ICC) Lifecycle Management
- Requirements for Subscriber Key Management

Certificate Lifecycle Management Controls

- Subscriber Registration
- Certificate Renewal
- Certificate Rekey
- Certificate Issuance
- Certificate Distribution
- Certificate Revocation
- Certificate Validation

Subordinate CA Certificate Lifecycle Management Controls

- Subordinate CA Certificate Lifecycle Management

SHECA does not escrow its CA keys, and does not provide certificate suspension services. Accordingly, our assertion does not extend to controls that would address those criteria.

The UniTrust Global Root CA R1 (Attachment A #100), UniTrust Global Root CA R2 (Attachment A #107), UniTrust Global Root CA R3 (Attachment A #111), UniTrust Global Code Signing ECC Root CA R2 (Attachment A #115), UniTrust Global SMIME ECC Root CA R2 (Attachment A #121), UniTrust Global Time Stamping ECC Root CA R2 (Attachment A #129), UniTrust Global TLS ECC Root CA R2 (Attachment A #133), and UniTrust Global TLS RSA Root CA R1 (Attachment A #137) CAs did not issue certificates during the period April 1, 2024 to March 31, 2025 and were maintained online to provide revocation status information only.



Mr. Cui Jiuqiang
General Manager of Shanghai Electronic Certificate Authority Co., Ltd.



Attachment A

The list of keys and certificates covered in the management's assertion is as follow:

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
1	UCA Root G2	Root Key	sha256RSA	2048 bits	CN = UCA Root G2 O = UniTrust C = CN	E4BB2C9FB2B51C8831AF7FCBDCF4052BE085F701	A07919A6391BCD6E15FB33A41B43A938EF3D19CF54F0198EC29D02364BC5AoEC	UCA Root G2
2	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	69275DE8AF892E26E1B5339A664C194550799372F13CA6FB4966408F6A43C5B4	UCA Root G2
3	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	23434A3078ADBE51DF267504F5655107ED1AA4E555D3DF21F479F1B4E4610Ao8	UCA Root G2
4	GlobalSign China CA for AATL	Signing Key	sha256RSA	2048 bits	CN = GlobalSign China CA for AATL O = GlobalSign China L = Shanghai S = Shanghai C = CN	FCAD8AADBFB323AFF97C09BD74A7039888919D46A	D883436D97Bo8B008810D2EF3852D322E1D3528C751D3B23FFoC80803ED1CFAE	UCA Root G2
5	UCA Root SM2	Root Key	SM2	256 bits	CN = UCA Root SM2 O = UniTrust C = CN	EEE8B09CD5DCEC73FDEF7CFA502CC6C140E64CB3	307C77562B1532AE5FA6E63ED597CD54A0CBCC111F3598A7CCB2E19DD1351362	UCA Root SM2
6	UniTrust DV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust DV Secure Server CA G4 O = UniTrust C = CN	ADA611696054F898CED269542A29DF239484E833	68B5E5FCA21925C5AF6628341FE6DBD187C6E66AEEF5F58295DCD7238FF56AD8	UCA Root SM2
7	UniTrust OV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust OV Secure Server CA G4 O = UniTrust C = CN	D6546FA6587275420BF204794C4C6DE4368A8BD5	E75A9D14B5C5FF14779FoDC8A7889EE757788DC82706D95B4E2AF039098FA72C	UCA Root SM2
8	SHECA SM2	Signing Key	SM2	256 bits	CN = SHECA SM2 O = UniTrust C = CN	893104917B43A AAA9ABF841D9B86EEFoB87099Ao	F5F6192276AED2141B3A66FD66724D46C5A58CACF618CAA5B5AA546ED5865207	UCA Root SM2
9	TrustAsia SM2 DV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	1B40CF756BB3E9D42B6AEoC CA449D5A26FE48F2A	FB812E1561383E0020103977D7E64D18B3587BC092F9DEC67600DE2A8493352C	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
10	TrustAsia SM2 OV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	3623100989022D63A4C9E816BC531490AA2A01F7	2DBE68A196611EC658022F62607FBC0AA2000FD3147028EB2B16355B6D296EDF	UCA Root SM2
11	TrustAsia SM2 Identity CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 Identity CA - S1 O = TrustAsia Technologies, Inc. C = CN	73075D5EFBF48320ED005F013AD1930E3FF432F2	BACE521585871388E4B3ECF44B5B4A965CCFD995C72D8813B61E643C77F1298D	UCA Root SM2
12	SHECA SM2 Identity CA G1	Signing Key	SM2	256 bits	CN = SHECA SM2 Identity CA G1 O = UniTrust C = CN	687C2F9B2E68A2DFCE11115411A6B60E6CEE2520	490BA44A5C4061D487EF1C945EC4889770A1F31299F0083045192D8978C25D7E	UCA Root SM2
13	CECloud Secure Server CA V1	Signing Key	SM2	256 bits	CN = CECloud Secure Server CA V1 O = 中国电子系统技术有限公司 C = CN	3D017054EBD1DAE2FA72558A7B4AD4112EC2789C	D973269DE727110F2577F12FC7039F204C8688F90479A60A6D918181E96BC921	UCA Root SM2
14	CT2 DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 DV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	4C1A3411A3416DE899A4B670626764EA7CF2A784	1D00F1814BB2A20D578BA255B6F80D6F831CA7302BE28E446FB2530BEE90CBEA	UCA Root SM2
15	CT2 OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 OV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	6C5DF638967FADECC1F4352AEE7B53772AD4AE56	68A9EC5F347044CA199D0C227BBAF1167FB19C9F1C2718ED1A0CBA53AA095B8B	UCA Root SM2
16	CT2 EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 EV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	34F2351E936044F2951DDE201F7FEBAAF61A1465	7FoCC711C115AEF7FE38707945FE116E11CDA4D39343A3194F01A01A6AFDA86A	UCA Root SM2
17	KeepTrust DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust DV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	343B9BF590205E0D98DA77EB32C59EF95397A96F	B5D123DF7246E26A98C1BF96B8EB817F3E4300F014818959353C6B1FBA603446	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
18	KeepTrust OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust OV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	071E11176177C996A40ABC42F9789CBABD493114	003F65AF71B13A6E73081A44E4C14B5E3B60F02064285F00C46F93AD3A7F8769	UCA Root SM2
19	KeepTrust EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust EV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	7539B83459BDC90FDF2F9EB1777AB785A4B92DB3	18A4E716F150E9B98350502F9DB956CAA8A134F49C159BB4998AF0835010D139	UCA Root SM2
20	SHECA EV TLS SM2 CA G4	Signing Key	SM2	256 bits	CN = SHECA EV TLS SM2 CA G4 O = UniTrust C = CN	3FED031972F260AF185B2DD99735E1D7985C958D	6FF668D6CC32F96E56C776C49534A9698742C245396BE06029F1DF7F18B1D615	UCA Root SM2
21	DNSPod DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod DV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	7EA2D174C8475067B0780812F2D3F402E3D005A9	C1245B9C48D1B0889DE62D22092E20ECBBD150C8ACE738B9E495F41ADA782AAD	UCA Root SM2
22	DNSPod OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod OV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	BDF1F484808D223851B9C79662FC596F3DC820AA	8FDD10BD38AB8AA8C541CCFCC637F50F8B667E86C7DCAD02061614EAB53462E3	UCA Root SM2
23	DNSPod EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod EV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	F6AEE376BEAFC14367F0C11D16A2A4A88D935D8C	3A381E099528FCEC2D94B3433D469F737543C0020C34E46CAA9E4EFF288A7AB2	UCA Root SM2
24	Keymatic Secure Domain SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Domain SM2 CA G1 O = PKI(Chongqing) Limited C = CN	1064E31D4774548526E2169E17E0E4E58F672FE3	077114080656553F7C2C0235311FAD3BDA492958C2E2AE8E720960565AEB9585	UCA Root SM2
25	Keymatic Secure Business SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Business SM2 CA G1 O = PKI(Chongqing) Limited C = CN	E81A57AF0C015AC3731CF3912F882D761C1408DF	676224C3F6E4EFF575F04073AC57AFD17C2A7D4270E5C19BB284C738FoE3C421	UCA Root SM2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
26	Keymatic Secure Site EV SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Site EV SM2 CA G1 O = PKI(Chongqing) Limited C = CN	547FF1C3D65B AEA46A9DACA DEA94E8E1874 9D4A6	3DA7919952037C7 D1F962A37A4EA90 26C8483C2C4AFE3 E756FD3345DCF6B C150	UCA Root SM2
27	sslTrus SM2 DV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 DV TLS CA G1 O = sslTrus C = CN	F921F5B4756F5 159429644147A 63F443195BAC9 A	BDE9CF0d1DoA60 EA891C037CBA7CC 0D6036B2140319C 7A80E46D9CA38F AC2C4E	UCA Root SM2
28	sslTrus SM2 OV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 OV TLS CA G1 O = sslTrus C = CN	DD18CA5E337D D2EECCF5AB16 14E3559B43CF CB32	6C25FD7209E6190 8919204027B8DEC C4AoC07469A99A5 3D66798FB96FF8A 0EC7	UCA Root SM2
29	sslTrus SM2 EV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 EV TLS CA G1 O = sslTrus C = CN	EB3B9889FD7B 8E7161C4F4D7 D2C1BC73433A FA52	65F06D7C7332F18 4A36B5C8ABB2F6 FC4DECA45249958 6A29693C3A4BF6 D3955A	UCA Root SM2
30	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50C085F 8C1567217401D FDF	9BEA11C976FE014 764C1BE56A6F914 B5A560317ABD998 8393382E5161AA0 493C	UCA Global G2 Root
31	SHECA SMIME CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA SMIME CA G1 O = UniTrust C = CN	1FA80B4DCF9C A6A53ADAB09 6AB9957B90A9 B7F5D	8100D384D6C4529 883C37C37C68FD4 903C41CCBCB9033 A9C733A6AF0806E 1DE7	UCA Global G2 Root
32	SHECA RSA Code Signing CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Code Signing CA G3 O = UniTrust C = CN	FD7EC87AC277 1C5687D2AEF8 07C7426A1B7C4 2A8	C7E976AA77E9249 1C269840B2F1461E 65147A2BB181EE59 AB63BCD86704FE 456	UCA Global G2 Root
33	SHECA RSA Domain Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Domain Validation Server CA G3 O = UniTrust C = CN	057A4D756FFD 0A83B16716757 73E14C5F53C54 8E	0A552A65F22FF82 0E7EC3D43BBF88 B02ABC34BD247E 0C3505891B6342F1 6A5F2	UCA Global G2 Root
34	SHECA RSA Organization Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Organization Validation Server CA G3 O = UniTrust C = CN	316068091E32F 9F6CCC06215A A7B91AF4C119 D40	26FD4C4367E463D 39C71796AE4010E 53380DC93BC132F B019D6718A6873E 81F4	UCA Global G2 Root
35	SHECA RSA Time Stamp Authority G1	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Time Stamp Authority G1 O = UniTrust C = CN	6FC5770C4E82 5E4B544B30BD 9933F408571A3 DB4	86EE4A2F93137CA 8887674078B3940 70F189B3049DD2 D24053AE9292425 4C668	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
36	SHECA DV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA DV Server CA G5 O = UniTrust C = CN	D8E7061B645FAB3008887A2453AAE11C8304BF6D	778C516DAEC700E58B3581E411E5C0DD478663A5163A29895341507D6E964DD	UCA Global G2 Root
37	SHECA OV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G5 O = UniTrust C = CN	0379A38D525FD4E988921F4358542502F4878B7E	8AB3A0ACF289E6EF754BE449236843D67F45C191BDDD66484B85E6E60556A9AF	UCA Global G2 Root
38	SHECA EV Server CA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G2 O = UniTrust C = CN	86B148C0420A9C6F81FC4FDCD10F184BAAB5A6EA	4216527163AD2CA A825D3BF48F61A7661D0ABC89B58A B76B23A1E10999F0769F	UCA Global G2 Root
39	SHECA Code Signing CA G4	Signing Key	sha256RSA	3072 bits	CN = SHECA Code Signing CA G4 O = UniTrust C = CN	73C3B39021CBF23BDA23D351F295C58BC678EE47	8FoC3E06A16E3EA7C9B15A848076ED15E51DA0B6F1AFA274EDE2B9102191FE0F	UCA Global G2 Root
40	SHECA Time Stamping CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA Time Stamping CA G2 O = UniTrust C = CN	CFDD9E670A6CB17E2C1A4F595387B2369BF96994	422C71F8DB9FDA2C65458B52363DB6FDC4E37B436774B CF97518F3F42EC725F1	UCA Global G2 Root
41	TrustAsia RSA DV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	9432E0D48ACD1D93E75C5372960C5EF1F3F67972	074ADD7F1E73EB110EC8E2B78A92C51CF5A451135B6F7DEFC019EE9D74BFA4D6	UCA Global G2 Root
42	TrustAsia RSA OV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	F575D48E293E17A8A9C49EDCE6DB0A344D132AEB	D16BA9ACB74FEE4AA8087EE482E86E7F6F5F5FAC5025639730753FE1E705E3C	UCA Global G2 Root
43	SHECA Global G3 SSL	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 SSL O = UniTrust S = Shanghai C = CN	9820FoF1D942A6DE833F991019003D6868D20181	AEFFFE4335EE56422E927F45E95AE142B9EB35979A7400569AE9BDEA6CAA BC1DC	UCA Global G2 Root
44	SHECA Global G3 Code Signing	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 Code Signing O = UniTrust S = Shanghai C = CN	F73DF939A8D98754AC778EF5D995EEF835AB9439	EAA5AD8E9A2FA992354B2FF4254BE B08A632F7F17602604DDED58D73D616D844	UCA Global G2 Root
45	Xinnet DV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet DV SSL O = 北京新网数码信息技术有限公司 C = CN	9D3AA5B8E2212783643FF578DC22B04E6BCB36D4	9C53902F9501F6D89766999DBE2AD1A1436420B652535CDC2DC51CCFE2F FEE68	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
46	Xinnet OV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet OV SSL O = 北京新网 数码信息技术 有限公司 C = CN	4B78C0324A24 42784E9F83F0 DoFE336C7E0D 934F	3C07D7EFC8D458 F668C10D4F06F90 503CCD25D59E2B 3F1D58B32884D9E 4E3809	UCA Global G2 Root
47	SHECA MV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA G1 O = UniTrust C = CN	4F111E8FD4506 500D7CE56519 0AF012BFB143 845	C064FAB74E87231 64932A25CFB6708 106E1E5A3A05CFD 1079B1DCF52792C 5908	UCA Global G2 Root
48	SHECA IV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA G1 O = UniTrust C = CN	E010A54E644A 8F605F134C5C1 08E742C0168B BE5	2A1AAA3E4D7C6E C8BE083BDBDD24 7153A88D51F1226F D9691B872AE23D1 66BFF	UCA Global G2 Root
49	SHECA OV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA G1 O = UniTrust C = CN	E3B8865D1EF2 FF2146219648B D54022EC93BC 85C	73BA9F7AE0924F3 567F0280568A705 0A58C9C4855DE0 686C2FDC48522EB 86D2D	UCA Global G2 Root
50	SHECA Code Signing CA G5	Signing Key	sha384RSA	3072 bits	CN = SHECA Code Signing CA G5 O = UniTrust C = CN	4CF2087E0172 B6CoA36E0655 BoF20C06293C E53F	51984B5D20306FE 69008A5B5EE5643 E5BF41644330910 653F00A21B609B2 D23	UCA Global G2 Root
51	JoySSL DV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA G1 O = JoySSL Limited C = CN	2A56E8EF40E0 A9999D6DD812 9FB79B056B88 2DED	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
52	JoySSL OV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA G1 O = JoySSL Limited C = CN	6BF2449C86D0 C6DED8510766 1B2748792342C B95	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
53	KeepTrust DV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	088BoDF30Bo9 66297021D02C 377300F5A7F4E 7E9	352582CCC85B394 4E3CD2505D9318F 22ABEA418BFF29A 0FE4D2CoDF280F 200E3	UCA Global G2 Root
54	KeepTrust OV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	F68D3850B96E A8BEFC50CA91 247F1ABC9EA3 9D4D	CD50559A6DC5C7 04237EABF9A070B 79FoCDFC1A79C3A 6AC8C5E71E295A0 65DoA	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
55	ZoTrus RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA G1 O = ZoTrus Technology Limited C = CN	EC1EBCB71E092769EFA715E89AA1677C33AA0F5A	E7EF1AD946214B32AF03CC287930Do464ED2Co86D7A1447C6E27FC9217D4E16B	UCA Global G2 Root
56	ZoTrus RSA OV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA G1 O = ZoTrus Technology Limited C = CN	AoFA64A37EB83C7C194C51B7FE6A2BE8A39F78A4	3EC123D71DB27AE1DC8F877286C222F4167A2AE4FD7BCF370789EF4A9521B8	UCA Global G2 Root
57	JoySSL DV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA O = JoySSL Limited C = CN	807B3118B837D850FD1C4AD9879A5E426D00A1A4	AA9CD0737407E9E9D9D86B145A2CFD7CD385C28BCF5996AA8D9A6DA5FC76F3A2	UCA Global G2 Root
58	JoySSL OV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA O = JoySSL Limited C = CN	21507E5079E680B202CoFBC1AFAD8026DC52B8DD	oDD33FA366CA02808D29A5C1C456496AB5015C3604EB21C101406AF2533D998A	UCA Global G2 Root
59	KeepTrust DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	5063446A28FAC2B3D5122D01A63D9B85845026CC	A879CB01A2661C255B9C2B9BE0B20BA74EEA9546E21A82C570E177CF5BF4AEDA	UCA Global G2 Root
60	KeepTrust OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	04FA1B9DBC05CD575CC6518D5CDFE62CD151BoC8	FFDoD9EEEEAFB44F71392F20A52EoF65896854933139640722DECFC2D4658	UCA Global G2 Root
61	ZoTrus RSA DV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA O = ZoTrus Technology Limited C = CN	7FEF9BoB9EB3F717A576BBC7580209DE731544B7	69C25861236502F0C223443FD851A2FB6ACB745BB814AD72BB2E50867C52C3BB	UCA Global G2 Root
62	ZoTrus RSA OV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA O = ZoTrus Technology Limited C = CN	E92D57AB2A4455799E257937123588FCDF187AC3	219C59CCD06D021oADCF6E8125700D1578F69A0670A07FD9DDE99E4AC82524CD	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
63	CT2 DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 DV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	8955C1DB0608F7A83C51CA3BF98F017B90098A73	4B316EDFC0780286571E430CoA94231B192B45666AF5DEBEE454FE08E4496383	UCA Global G2 Root
64	CT2 OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 OV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	27937BF574A8AF23A7F29E2B03CFACC7182B2EFA	A263B7CEFD1490D04FD0EC31D9695BAEE480EE861D12124C2BF8EBD8A893652F	UCA Global G2 Root
65	SHECA FREE DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA FREE DV TLS RSA CA G1 O = UniTrust C = CN	F18082839D6BB5C20A6A43C2D584A9F6F3EF2DC9	DFD9FB07A42E81216D6497FBC47BE53D829BBFD6A9188B02D5C8CDE29E01CF5C	UCA Global G2 Root
66	SHECA FREE DV TLS ECC CA G2	Signing Key	sha384RSA	384 bits	CN = SHECA FREE DV TLS ECC CA G2 O = UniTrust C = CN	84BCFE29594A85C0849FF0F21230812BE73F9BBC	81DB88F4CDE7345BoEC140E4A193720163DF9B787FABA0AF5A7EDACE6DC315A6	UCA Global G2 Root
67	SHECA DV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA DV TLS ECC CA G6 O = UniTrust C = CN	7E44A7C621F5F30E25293C07F288ECC82F7BD482	1F0570E418F9C89E094CB26EDA71B92BED81ACBB446B2300D398DD739AB7A6C	UCA Global G2 Root
68	SHECA OV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA OV TLS ECC CA G6 O = UniTrust C = CN	2569CCEFDB564A83BAC15284500F13D86104FEE0	C4DA2C937523D42054FBB4AF694BB90FC7743C910EE048726241BD84C38509D9	UCA Global G2 Root
69	DNSPod DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod DV TLS RSA CA G1 O = DNSPod, Inc. C = CN	4CF1C77BBB5F991923F8616FD712F9749C5AE55C	A07A7DEFCD1ED23F36D22AC33421F1D973583B12C96CA2496DE724C4494CoCD2	UCA Global G2 Root
70	DNSPod DV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod DV TLS ECC CA G1 O = DNSPod, Inc. C = CN	B9A7EB6345ADB88940892F8B69930658DA9733CF	AACCD77057271FF5F605DF8CC5A44397E71CCE796EA79B8F1E8658FC9CD52464	UCA Global G2 Root
71	DNSPod OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod OV TLS RSA CA G1 O = DNSPod, Inc. C = CN	38C22FB4856AB84A51911FE53A7FE2BE1103338F	F36592E33FD869E917E33BADE683A4EC20809D5C8B493A1427BA6DC066CB5AE3	UCA Global G2 Root
72	DNSPod OV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod OV TLS ECC CA G1 O = DNSPod, Inc. C = CN	586EA65733443DCE3CED5DEBF47E000FoE81B28D	8C4BFF9AE3F079E50208F84E4DA658AB441109686861FFCEE50D4A8662C2EEA1	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
73	Keymatic Secure Domain RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Domain RSA CA G1 O = PKI(Chongqing) Limited C = CN	8ED096D6E8A4D935F386EBD AoB592E40521 BoCBB	F3C9431A163BECE 79562093F0734DF 6ED05618551CFEE oABA949A77E959 D8AAE	UCA Global G2 Root
74	Keymatic Secure Domain ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Domain ECC CA G1 O = PKI(Chongqing) Limited C = CN	C1286B590B198 916D776E6661E 57D4460812ED DF	Bo7D2ACA4F29E2 449B5ADB7CCB31C 64C43854044A2DA A2AC838788026C6 84CoC	UCA Global G2 Root
75	Keymatic Secure Business RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Business RSA CA G1 O = PKI(Chongqing) Limited C = CN	5693F449C7E44 8C3C3D2BE863 97E33368163A3 77	5523644185E21EF9 43A505A1C438167 DA1FE7B14BEF2D2 43E53DE8C2B4263 EB7	UCA Global G2 Root
76	Keymatic Secure Business ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Business ECC CA G1 O = PKI(Chongqing) Limited C = CN	23368DE013A9 BB36D76A66E1 128EDA5F4A36 20D5	75C4AF6628E7D01 DD369593EFD727 E3560ED9DDD67B 04325655821BD23 281A2B	UCA Global G2 Root
77	sslTrus RSA DV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA DV TLS CA G2 O = sslTrus C = CN	DEE386BAC52 E630164E0C142 943C3202967C6 891	B3A5BED750BCE5 A08C75E0012BoA6 A67954952BC8D12 520514CC15CBB0B 17039	UCA Global G2 Root
78	sslTrus ECC DV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC DV TLS CA G2 O = sslTrus C = CN	624679EBA47F FA4CD98D6FF FDE6D6F7FE49 E86E9	32CAA961415106CF 471CEA5B15C6646 4A907C99861A297 C359D174624BADB 92F	UCA Global G2 Root
79	sslTrus RSA OV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA OV TLS CA G2 O = sslTrus C = CN	oEDFB6894806 4E10818E3C810 8C824BB8B308 F62	FoE647B5A2869A3 487507A90549AF0 39896DB8BoFoE7 CF92EF3AB567F3E C5E5C	UCA Global G2 Root
80	sslTrus ECC OV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC OV TLS CA G2 O = sslTrus C = CN	BEE114C1BEF8 4DA5E3D4E41F CAoD1F81A90C oFE0	06B7E611243D2901 B964FF6DoC53A2 DB52BA2E1D41E17 D74950E16605D9A 2C90	UCA Global G2 Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
81	HTTPS Automation Research RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = HTTPS Automation Research RSA DV SSL CA G1 O = Shenzhen Yamu Security Technology Co., Ltd. C = CN	0FB6A84D71E5B1B38F9E72D6BBC06A147FE4D03B	1E426FF0F51EB4C285788B4418D2DAB21097230CED81119BA178A20AB1AABF67	UCA Global G2 Root
82	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	C1AFC65B1E813B0E6146E6AA5341681272ABE9A38D59F7BD1B27B729834A0D9C	Certum Trusted Network CA
83	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	3DD69C5BE170F943F804D1D31FE8F916CoC0226CDDD7AEA9AA9AoCDFD3474361	Certum Trusted Network CA
84	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	BB61408AED9F530B2EC0545E53BA2C8EBEAA57D9976447DB1663CED4600CD6B7	Certum Trusted Network CA
85	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	BFA95C5DF164B659FA32FD10564D7170DDE661A853A782E6AB63639433BCB41	Certum Trusted Network CA
86	UCA Extended Validation Root	Root Key	sha256RSA	4096 bits	CN = UCA Extended Validation Root O = UniTrust C = CN	D9743AE4303D0DF712DC7E5A059F1E349AF7E114	D43AF9B35473755C9684FC06D7D8CB70EE5C28E773FB294EB41EE71722924D24	UCA Extended Validation Root
87	SHECA RSA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Code Signing CA O = UniTrust C = CN	8E40665F6AA940C2B9F1F04A22639564593707E5	D404FAFA4BA2F426B66CD219C6DA84F91CoFB7CB58429EC8077E2A764314D55D	UCA Extended Validation Root
88	SHECA RSA Extended Validation Server CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Server CA O = UniTrust C = CN	3B4B252A77372AFCB97FEDA8BDAF2299FC5DC5F4	4FD6FA527157EEA463689D7A4C2B934EF222279725413893D9847242C85CA9DF	UCA Extended Validation Root
89	SHECA EV Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G3 O = UniTrust C = CN	54E972FB78669FE5CBF33B8F98465553739CoB84	7EF3F89456CE636557B20C5DFB37F98C253A0B660D2E9E5E7845CAF9Co38C7C1	UCA Extended Validation Root
90	SHECA EV Code Signing CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA EV Code Signing CA G2 O = UniTrust C = CN	5007CC4DF6F4BA37FC13CE1F2D22C956D89EA503	DD84169585A2E7A216AECDA083265A8EB51A64F7C6F1943671F8584C73F79A74	UCA Extended Validation Root

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
91	SHECA OV Server CA G6	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G6 O = UniTrust C = CN	FB7DCE4905B420BCFFBF0D8471ADAE0135F961A0	264DF1458FB5EF1FC9DF9F1345E84A6CC1A471CF475AE7598FF52B86713519FB	UCA Extended Validation Root
92	SHECA OV Server CA G7	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G7 O = UniTrust C = CN	A0F344BA17512C7776AB4442C5534B16AB5F0DAA	F6F8BCD413C9733166E85843B468DD36E727152D9A37B15129CoE7648ECE639	UCA Extended Validation Root
93	SHECA Extended Validation SSL CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation SSL CA O = UniTrust C = CN	4D140DEA6B559CoCA6E1BB7BE86A966D175E7CB5	25BFDB1C5FE2CC E051EC6DFBF2BB24E78C92F969B1B B37867DAEDF93D1A7AE7E	UCA Extended Validation Root
94	SHECA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation Code Signing CA O = UniTrust C = CN	7498996F6A15C0062520851CAF2B316B87EDA3DB	A392C645B9A5AD6A214F19DE776346BC7DD6BB15818E433886DAC54EE6661852	UCA Extended Validation Root
95	SHECA EV Code Signing CA G3	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA G3 O = UniTrust C = CN	6D325FA74CC0EEC89B7C6A3C0F2E33CA55EB99A8	E00AC33AC715D8BC3B6607A4165AE8428F9274B4224AB3D8CF36E8C8D62834A3	UCA Extended Validation Root
96	UniTrust Event Certificate Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Event Certificate Root CA R1 O = UniTrust C = CN	D7418BEED45FC6E97D69108608AC7EE48BA0727E	3200B1BC5CF8F8BCoA382BD7809166A221600747DEC386D2625959CD75A28212	UniTrust Event Certificate Root CA R1
97	SHECA Event Certificate CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA Event Certificate CA G1 O = UniTrust C = CN	2A4D7575347FFFB46A57513816FFA99EEAAFoF4F	32AE6837AEF2DABBC8C19385A57A19FC97F6BDB8384B1ADCCDEAED3A891A3AoF	UniTrust Event Certificate Root CA R1
98	Orient Fortune Securities Co., Ltd Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Orient Fortune Securities Co., Ltd Identity CA G1 O = 东方财富证券股份有限公司 C = CN	8F155742AFDF87B618F8622DAB2E07091A796249	115250822139D3C6A49C821ABB19630FAC617190DAA3CF7373D3C95F082CBDF7	UniTrust Event Certificate Root CA R1
99	Shanghai Eastmoney Futures Co., Ltd. Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Shanghai Eastmoney Futures Co., Ltd Identity CA G1 O = 上海东方财富期货有限公司 C = CN	D09AE4CC4499268F8D72F83789C45F3F11B7BA8D	B4800869058B4B74CA970B3414FEDE2F676D90F979E4961325AD72B13ABE8866	UniTrust Event Certificate Root CA R1

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
100	UniTrust Global Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Root CA R1 O = UniTrust C = CN	3CA061B0EFDA C6E8BB2DE156 A2EBBBB63D2 32381	81B35EFC42C7794 7209D76B51B5E7B 122CE78348AE8C4 525DC8D4B30289 E5385	UniTrust Global Root CA R1
101	SHECA DV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA DV Server CA 1A O = UniTrust C = CN	653740E0BBF4 3905206A8C9C AoACB3BBD69 68CAo	D3D4A040BB41A6 95A96E3AAD93814 CF7EF219D581920 6E947B44DCC5B8 E5E272	UniTrust Global Root CA R1
102	SHECA OV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA OV Server CA 1A O = UniTrust C = CN	8CD02E82008E E2DEFF71F61A1 05C74A826E85 8D1	9A3DB0FoFB0FF4 F974A4E0C510A7C 13D350485B1E6CD F5A899BB24DoF4 99E9BD	UniTrust Global Root CA R1
103	SHECA EV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Server CA 1A O = UniTrust C = CN	73E36DF62D86 2F57DF69A536 87231C85E0170 216	2F1CA1A5CoD7AE5 8C7ADFC69D4C57 EE815F39C0F3D1F 982E3AC76D25AB7 23995	UniTrust Global Root CA R1
104	SHECA Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing CA 1A O = UniTrust C = CN	21B34B4FC6DD 33246E861BAC EBF182D7EFCA 2CDA	59E3EF6680BCCo B1162DED4929D37 E698C6A5CBEE075 C03F1173AD653CF 91CED	UniTrust Global Root CA R1
105	SHECA EV Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA 1A O = UniTrust C = CN	510BE3C14EAB DFEA38FF434E 2C97339CoBFC 27A9	03E04A3C2B5200 BB27C679A372618 52BAC7D46F3F371 E4ECA80225AE28 8E4CFC	UniTrust Global Root CA R1
106	SHECA Time Stamping CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping CA 1A O = UniTrust C = CN	8FBFB44A46F6 47EDF6EB8Ao B5E160943089 6FA46	2DFDBF6CECo587 B55F1300F109BC4 6EFD16BC7EB5F43 CAE563953D87C7B 432C4	UniTrust Global Root CA R1
107	UniTrust Global Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Root CA R2 O = UniTrust C = CN	E45366B7B7A4 E9D7CCC121Eo 4ACFCCACo1BC 72BC	78919B35D1C61559 5A51328A5C54608 3B4D5320724A258 695B991F2F61C4D CC7	UniTrust Global Root CA R2
108	SHECA DV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV Server CA 2A O = UniTrust C = CN	A1221170BEC86 65F6ECB104C4 EDB38EA9C1F9 14D	69201DC24E4127F FA5B41AoDDFoA1 Aoo5CooF334Bo03 F1008924CBF998E 1827C	UniTrust Global Root CA R2
109	SHECA OV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV Server CA 2A O = UniTrust C = CN	98CDEC338767 F39422373810B 735BA7C683A8 259	8E2CA2825C20398 04A7A1CC54Bo02E A1DB3oAC489698F 039527BF1602132F 611	UniTrust Global Root CA R2
110	SHECA EV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV Server CA 2A O = UniTrust C = CN	44661C71EF69B 7930AB5B771D 83B114CFA843 D77	93E49170D20F54D A701118A5ABDCD DA4FFCF334CDB2 D8D80599AB6284 8C85F80	UniTrust Global Root CA R2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
111	UniTrust Global Root CA R3	Root Key	SM2	256 bits	CN = UniTrust Global Root CA R3 O = UniTrust C = CN	3B15E62B1C9F5015B64EA16D163A558AF4905FB5	6A19BCC7FAD2A5664F779BF143A72A2B079AC476E56FACBA48C352635CB4718F	UniTrust Global Root CA R3
112	SHECA DV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA DV Server CA 3A O = UniTrust C = CN	26924A66CDED A9AD2DD7DoA E53C5DE95436 A2C61	E464F2E140327DA8326C53A2FBA322F183E6DEFC56888A0811195265650BCAD1	UniTrust Global Root CA R3
113	SHECA OV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA OV Server CA 3A O = UniTrust C = CN	6F465A89CFB174BB558EB3A56D08093233E36D2F	19B057AB0827E37C8EB2EA7C04292068A253A3BEDC0C45848881CoBA78E717CF	UniTrust Global Root CA R3
114	SHECA EV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA EV Server CA 3A O = UniTrust C = CN	988B07A078C97576AF0CA1A723E87F4E9B482689	7F4A5FBCA47F8904D0AEA5D3BFA5759C4768BA6510EB1FEB5E5B076D12907741	UniTrust Global Root CA R3
115	UniTrust Global Code Signing ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global Code Signing ECC Root CA R2 O = UniTrust C = CN	D6E2F5C7B44051C5A3A5C490EFCB8C239503CDB	8854E81F9C6B47E438BBAE17E41F8BE4E68589AFD31A48BEE3F203F6DD3DA517	UniTrust Global Code Signing ECC Root CA R2
116	SHECA Code Signing ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA Code Signing ECC CA 2A O = UniTrust C = CN	3A5576122E385EB715671EE385BF1E3DoAC77A1A	953707AE07AF34970462E8C02AC3D10949D3684D063385277F31869508007D23	UniTrust Global Code Signing ECC Root CA R2
117	SHECA EV Code Signing ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA EV Code Signing ECC CA 2A O = UniTrust C = CN	BFAE7906E9776B61D01E4579986F2698B66DF25E	545BD126658352B306EE74185173F1774A79467A26E9BB6AE0ED44D86615DE5A	UniTrust Global Code Signing ECC Root CA R2
118	UniTrust Global Code Signing RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Code Signing RSA Root CA R1 O = UniTrust C = CN	60C14C87BDAA B27B678E4EA7921C519B481BA860	6357353A4BBCA3D5A158C95BE9DC90FoB3E2F6A6310FD5371FCB4C41E5E1BB4C	UniTrust Global Code Signing RSA Root CA R1
119	SHECA Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing RSA CA 1B O = UniTrust C = CN	046DED1C4A44C827558CD17D7B17CC0C539579DE	4C5F7C561295B97FE7616389A2B549A0D4598D0BD15EBFEA53AB518714CB8434	UniTrust Global Code Signing RSA Root CA R1
120	SHECA EV Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing RSA CA 1B O = UniTrust C = CN	7E2561771672AEE063F1C07B7CAC6F3AAE44CDC3	A85CBD3FD9F3BF E220DE0A09B52D5AA6F627EE9297FEFCE8706073A41B993C79	UniTrust Global Code Signing RSA Root CA R1
121	UniTrust Global SMIME ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global SMIME ECC Root CA R2 O = UniTrust C = CN	2D4D94407CFFC45D4357F190557448CF6CBEA343	6F4E2464D216A1E0B558BB204259B4A545AEB948957AA3EAF11B2F4DE1AFE10	UniTrust Global SMIME ECC Root CA R2

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
122	SHECA IV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA IV SMIME ECC CA 2A O = UniTrust C = CN	EBC1D6F67F2909A9928A90B4295818A02F3CAF1B	E82D794C1AC79F9BEBF3B6D98A237F84C15FD40C3AB8B6C2214E699414F8FF54	UniTrust Global SMIME ECC Root CA R2
123	SHECA MV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA MV SMIME ECC CA 2A O = UniTrust C = CN	FE0328035B693E5EDC5FAE0B742735DCC38C66F0	D7C4AB9D315AE8B889DA902C55264295D8CDC0F5471370490F4D4585E2C3C6D3	UniTrust Global SMIME ECC Root CA R2
124	SHECA OV SMIME ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA OV SMIME ECC CA 2A O = UniTrust C = CN	BD34144476B06D0F264C3CA9C349AC7153D4EF55	229B7FBCA2361DE63171067DE91DFFB3D2FA71A5ABE51CA41D5300C5750D2FoE	UniTrust Global SMIME ECC Root CA R2
125	UniTrust Global SMIME RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global SMIME RSA Root CA R1 O = UniTrust C = CN	DF08E3E977C1FoFBF5F8D419504C7719F206CBA3	FoF255ADA2A643CoA1E7C8F54F3ED3DD25EF0E7378E76F7C127517ECFD952803	UniTrust Global SMIME RSA Root CA R1
126	SHECA IV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA 1A O = UniTrust C = CN	D38BCDC445B1E8DoAFDD8BE8E4A6B5B30A71EF4E	82BA6F1067468383757DF53F1628258043BBB972E1CAD31FD7AADoADD66A5B53	UniTrust Global SMIME RSA Root CA R1
127	SHECA MV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA 1A O = UniTrust C = CN	5A4AEFED9AE84052DA320BBB32C4E529ECD C5255	92148A115D26B287254B36164164B2220EE36B405D3B708CF5B7AB060C66B1FE	UniTrust Global SMIME RSA Root CA R1
128	SHECA OV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA 1A O = UniTrust C = CN	Co61C3D053C9F412C5C9192DBB638305E4CA7EF8	6B661B964F2359C4CA68355243A2EEEDA9BACDA191D103AoC1119EC892018AC7	UniTrust Global SMIME RSA Root CA R1
129	UniTrust Global Time Stamping ECC Root CA R2	Root Key	sha384ECDSA	384 bits	CN = UniTrust Global Time Stamping ECC Root CA R2 O = UniTrust C = CN	C20E70D5E4015590A717B62DDDB5389D7627A1B7	90711D905CFF3C773A7320B5188A960C8A7D9E5966FA73284D64A4BF3E2FDA48	UniTrust Global Time Stamping ECC Root CA R2
130	SHECA Time Stamping ECC CA 2A	Signing Key	sha384ECDSA	384 bits	CN = SHECA Time Stamping ECC CA 2A O = UniTrust C = CN	41315BE8FD8C3C65630168307AoB30EC097F1069	0E3FC096DDCC3205047F9042D57882A1144107243C47CDE6FFFDE403A5B7CA04	UniTrust Global Time Stamping ECC Root CA R2
131	UniTrust Global Time Stamping RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Time Stamping RSA Root CA R1 O = UniTrust C = CN	DA891E9DC30F38DAB0896CCDC5FDD7504F155B30	1759727D9E6679B069DD3AFA910E2779C42007AAB206A169C66E6E2A3D1774B0	UniTrust Global Time Stamping RSA Root CA R1
132	SHECA Time Stamping RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping RSA CA 1B O = UniTrust C = CN	CC140216769CC1FCECFCA02C90C63AB0B6A36181	9A46D52BoF6A913E6BF3EE6DCFE08B2664DEE2AF704FD4931E8DoC38F3D76Doo	UniTrust Global Time Stamping RSA Root CA R1

#	Key Name	Key Type	Signature Algorithm	Key Size	Subject DN	Subject Key Identifier	Certificates Thumbprint (SHA256)	Certificate Signed by
133	UniTrust Global TLS ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global TLS ECC Root CA R2 O = UniTrust C = CN	7935AD798A95305C3E05A675161A97000F6FC C90	6C689FC6B014A1FBoCDEB5A3996171C15E7286106028532E0210CEA8D9CD4E97	UniTrust Global TLS ECC Root CA R2
134	SHECA DV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV TLS ECC CA 2A O = UniTrust C = CN	CB65E62F50175F2C172B433F3A043CD213569A66	D690D8722EA89CD7617901449520653339386AC4939F7EC5C1B195D9C3C95FA4	UniTrust Global TLS ECC Root CA R2
135	SHECA EV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV TLS ECC CA 2A O = UniTrust C = CN	B353900B5E40A4952EA85A27F413ABBAD631F233	05E4C4B1F258030690E6793C9C13C6F6AE234F68E5C41236FDC919B7F589032F	UniTrust Global TLS ECC Root CA R2
136	SHECA OV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV TLS ECC CA 2A O = UniTrust C = CN	A065578C43B2546C4E18DF86AED56725A9B7659C	08BA64405A3406C97BDCBD0E44224E6DD341F3EC93F1368457DFA7CAC88BE150	UniTrust Global TLS ECC Root CA R2
137	UniTrust Global TLS RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global TLS RSA Root CA R1 O = UniTrust C = CN	F2ADBFAB6708F09672E633D65175A24759C900C4	4BABE0E9328D5DAE17936F3DDAA2442BFBDD0873F92FB8D1FBBBD3D9894649AD9	UniTrust Global TLS RSA Root CA R1
138	SHECA DV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA DV TLS RSA CA 1A O = UniTrust C = CN	C5E3A87F7EEDBC3E7108B34EF490EF2F2F1367D1	FFABEA74895DC0C78C224597472CF6937E0D740EF49DC2256C8E75A2A2A15EDE	UniTrust Global TLS RSA Root CA R1
139	SHECA EV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA EV TLS RSA CA 1A O = UniTrust C = CN	60651A135EAB2B98A5A1041B3057A1D02FC612E5	B2525A5966CA68CA7F504F0A21FD73847D174F89B48852A3E970588E1EAF C774	UniTrust Global TLS RSA Root CA R1
140	SHECA OV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV TLS RSA CA 1A O = UniTrust C = CN	F463091C1E2788B75DBBE91644B1744A34F34B46	7F8EF707C2D9A4B7D4ED5FDDC8AF4A64D99BF297D03F8F01C4375DE74B1C7DE1	UniTrust Global TLS RSA Root CA R1



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罗兵咸永道会计师事务所
香港中环太子大厦22楼

2025 年 5 月 9 日

致：罗兵咸永道会计师事务所

就 **2024 年 4 月 1 日到 2025 年 3 月 31 日** 期间电子认证业务规则披露和电子认证运行控制活动的管理层认定报告
(本中文报告只作参考，正文请参阅英文报告。)

上海市数字证书认证中心有限公司 (Shanghai Electronic Certificate Authority Co., Ltd., 简称“SHECA”) 运营电子认证服务机构 (附录 A 列示了服务所包括的根证书和中级证书)，并提供以下电子认证 (以下简称“CA”) 服务：

- 订户注册
- 证书更新
- 证书密钥更新
- 证书签发
- 证书分发
- 证书吊销
- 证书验证
- 订户密钥生成和管理
- 中级CA认证

SHECA 的管理层负责针对 CA 服务建立并维护有效的控制，包括：CA 业务规则披露，CA 业务规则管理，CA 环境控制，CA 密钥生命周期管理，订户密钥生命周期管理，证书生命周期管理，以及下级 CA 证书生命周期管理。这些控制包括监控机制及为纠正已识别的缺陷所采取的改进措施。

任何控制都有其固有限制，包括人为失误，以及规避或逾越控制的可能性。因此，即使有效的控制也仅能对 SHECA 运营的电子认证服务提供合理保证。此外，由于控制环境的变化，控制的有效性可能随时间而发生变化。

SHECA 管理层已对所提供的电子认证服务的业务规则披露及控制进行评估。基于此评估，SHECA 管理层认为，在 **2024 年 4 月 1 日至 2025 年 3 月 31 日** 就 SHECA 在中国上海 (包括设施 1 和设施 2) 所提供的电子认证服务期间，SHECA：

- 披露电子认证业务、密钥生命周期管理、证书生命周期管理，以及CA环境控制管理

于：

- [UniTrust证书认证业务规则 v3.7.9](#);
 - UniTrust证书认证业务规则 v3.7.8;
 - UniTrust证书认证业务规则 v3.7.7;
 - [UniTrust证书策略 v1.5.7](#);
 - UniTrust证书策略 v1.5.6;
 - UniTrust证书策略 v1.5.5;
 - [UniTrust事件证书策略&认证业务规则 v1.8](#); 以及
 - UniTrust事件证书策略&认证业务规则 v1.7,
- 通过有效控制机制，以提供以下合理保证：
 - SHECA的CPS与CP相符;
 - SHECA遵循CP和CPS提供电子认证服务，
 - 通过有效控制机制，以提供以下合理保证：
 - 有效维护所管理的密钥与证书在生命周期中的完整性;
 - 建立并保护所管理的订户密钥和订户证书在生命周期中的完整性;
 - 恰当地鉴证（SHECA所执行的注册操作）订户证书申请者的信息；以及
 - 中级CA证书请求是准确、经鉴证并通过批准的，
 - 通过有效控制机制，以提供以下合理保证：
 - 对CA系统和数据的逻辑和物理访问仅限于授权的个人;
 - 保持密钥和证书管理操作的连续性；以及
 - CA系统的开发，维护和操作得到适当的授权和执行，以维持CA系统的完整，

以符合 [WebTrust电子认证审计标准 v2.2.2](#), 包括以下内容：

CA业务规则披露

- 电子认证业务规则（CPS）
- 证书策略（CP）

CA业务规则管理

- 证书策略管理
- 电子认证业务规则管理
- CP和CPS的一致性

CA环境控制

- 安全管理
- 资产分类与管理
- 人员安全
- 物理及环境安全
- 运营管理
- 系统访问管理
- 系统开发、维护与变更管理
- 灾难恢复、备份与业务连续性管理
- 监控与合规
- 审计日志

CA密钥生命周期管理

- CA密钥生成
- CA密钥保管、备份及恢复
- CA公钥分发
- CA密钥用途
- CA密钥归档
- CA密钥销毁
- CA密钥泄露
- CA加密设备生命周期管理
- CA密钥迁移

订户密钥生命周期管理

- CA提供的订户密钥生成服务
- CA提供的订户密钥保管及恢复服务
- IC卡生命周期管理
- 对订户密钥管理的要求

电子证书生命周期管理

- 订户注册
- 证书更新
- 证书密钥更新
- 证书签发
- 证书分发
- 证书吊销
- 证书验证

中级CA证书生命周期管理

- 中级CA证书生命周期管理

SHECA 不提供 CA 密钥托管服务，并且不提供证书挂起服务。

UniTrust Global Root CA R1（附录 A #100），UniTrust Global Root CA R2（附录 A #107），UniTrust Global Root CA R3（附录 A #111），UniTrust Global Code Signing ECC Root CA R2（附录 A #115），UniTrust Global SMIME ECC Root CA R2（附录 A #121），UniTrust Global Time Stamping ECC Root CA R2（附录 A #129）UniTrust Global TLS ECC Root CA R2（附录 A #133），和 UniTrust Global TLS RSA Root CA R1（附录 A #137）在 2024 年 4 月 1 日至 2025 年 3 月 31 日期间未颁发证书，仅保持在线以提供吊销状态信息。

崔久强
上海市数字证书认证中心有限公司总经理

公司盖章

附录 A

下表列示本管理层认定所包括的密钥和证书：

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
1	UCA Root G2	Root Key	sha256RSA	2048 bits	CN = UCA Root G2 O = UniTrust C = CN	E4BB2C9FB2B51C8831AF7FCBDCF4052BE085F701	A07919A6391BCD6E15FB33A41B43A938EF3D19CF54F0198EC29D02364BC5AoEC	UCA Root G2
2	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	69275DE8AF892E26E1B5339A664C194550799372F13CA6FB4966408F6A43C5B4	UCA Root G2
3	SHECA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA G2 O = UniTrust C = CN	5688DEE3184382B772A426EB44A962D087C4AC26	23434A3078ADBE51DF267504F5655107ED1AA4E555D3DF21F479F1B4E4610Ao8	UCA Root G2
4	GlobalSign China CA for AATL	Signing Key	sha256RSA	2048 bits	CN = GlobalSign China CA for AATL O = GlobalSign China L = Shanghai S = Shanghai C = CN	FCAD8AADBFB323AFF97C09BD74A7039888919D46A	D883436D97B08B008810D2EF3852D322E1D3528C751D3B23FF0C80803ED1CFAE	UCA Root G2
5	UCA Root SM2	Root Key	SM2	256 bits	CN = UCA Root SM2 O = UniTrust C = CN	EEE8B09CD5DCEC73FDEF7CFA502CC6C140E64CB3	307C77562B1532AE5FA6E63ED597CD54A0CBCC111F3598A7CCB2E19DD1351362	UCA Root SM2
6	UniTrust DV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust DV Secure Server CA G4 O = UniTrust C = CN	ADA611696054F898CED269542A29DF239484E833	68B5E5FCA21925C5AF6628341FE6DBD187C6E66AEEF5F58295DCD7238FF56AD8	UCA Root SM2
7	UniTrust OV Secure Server CA G4	Signing Key	SM2	256 bits	CN = UniTrust OV Secure Server CA G4 O = UniTrust C = CN	D6546FA6587275420BF204794C4C6DE4368A8BD5	E75A9D14B5C5FF14779F0DC8A7889EE757788DC82706D95B4E2AF039098FA72C	UCA Root SM2
8	SHECA SM2	Signing Key	SM2	256 bits	CN = SHECA SM2 O = UniTrust C = CN	893104917B43A AAA9ABF841D9B86EEF0B87099Ao	F5F6192276AED2141B3A66FD66724D46C5A58CACF618CAA5B5AA546ED5865207	UCA Root SM2
9	TrustAsia SM2 DV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	1B40CF756BB3E9D42B6AE0CCA449D5A26FE48F2A	FB812E1561383E0020103977D7E64D18B3587BC092F9DEC67600DE2A8493352C	UCA Root SM2

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
10	TrustAsia SM2 OV TLS CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	3623100989022D63A4C9E816BC531490AA2A01F7	2DBE68A196611EC658022F62607FBC0AA2000FD3147028EB2B16355B6D296EDF	UCA Root SM2
11	TrustAsia SM2 Identity CA - S1	Signing Key	SM2	256 bits	CN = TrustAsia SM2 Identity CA - S1 O = TrustAsia Technologies, Inc. C = CN	73075D5EFBF48320ED005F013AD1930E3FF432F2	BACE521585871388E4B3ECF44B5B4A965CCFD995C72D8813B61E643C77F1298D	UCA Root SM2
12	SHECA SM2 Identity CA G1	Signing Key	SM2	256 bits	CN = SHECA SM2 Identity CA G1 O = UniTrust C = CN	687C2F9B2E68A2DFCE1115411A6B60E6CEE2520	490BA44A5C4061D487EF1C945EC4889770A1F31299F0083045192D8978C25D7E	UCA Root SM2
13	CECloud Secure Server CA V1	Signing Key	SM2	256 bits	CN = CECloud Secure Server CA V1 O = 中国电子系统技术有限公司 C = CN	3D017054EBD1DAE2FA72558A7B4AD4112EC2789C	D973269DE727110F2577F12FC7039F204C8688F90479A60A6D918181E96BC921	UCA Root SM2
14	CT2 DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 DV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	4C1A3411A3416DE899A4B670626764EA7CF2A784	1D00F1814BB2A20D578BA255B6F80D6F831CA7302BE28E446FB2530BEE90CBEA	UCA Root SM2
15	CT2 OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 OV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	6C5DF638967FADECC1F4352AEE7B53772AD4AE56	68A9EC5F347044CA199D0C227BBAF1167FB19C9F1C2718ED1AoCBA53AA095B8B	UCA Root SM2
16	CT2 EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = CT2 EV TLS SM2 CA G1 O = 天翼安全科技有限公司 C = CN	34F2351E936044F2951DDE201F7FEBAAF61A1465	7FoCC711C115AEF7FE38707945FE116E11CDA4D39343A3194F01A01A6AFDA86A	UCA Root SM2
17	KeepTrust DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust DV TLS SM2 CA G1 O = 上海环度信息科技有限公司 C = CN	343B9BF590205E0D98DA77EB32C59EF95397A96F	B5D123DF7246E26A98C1BF96B8EB817F3E4300F014818959353C6B1FBA603446	UCA Root SM2

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18	KeepTrust OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust OV TLS SM2 CA G1 O = 上海环境信息科技有限公司 C = CN	071E11176177C996A40ABC42F9789CBABD493114	003F65AF71B13A6E73081A44E4C14B5E3B60F02064285FooC46F93AD3A7F8769	UCA Root SM2
19	KeepTrust EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = KeepTrust EV TLS SM2 CA G1 O = 上海环境信息科技有限公司 C = CN	7539B83459BDC90FDF2F9EB1777AB785A4B92DB3	18A4E716F150E9B98350502F9DB956CAA8A134F49C159BB4998AF0835010D139	UCA Root SM2
20	SHECA EV TLS SM2 CA G4	Signing Key	SM2	256 bits	CN = SHECA EV TLS SM2 CA G4 O = UniTrust C = CN	3FED031972F260AF185B2DD99735E1D7985C958D	6FF668D6CC32F96E56C776C49534A9698742C245396BE06029F1DF7F18B1D615	UCA Root SM2
21	DNSPod DV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod DV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	7EA2D174C8475067B0780812F2D3F402E3D005A9	C1245B9C48D1B0889DE62D22092E20ECBBD150C8ACE738B9E495F41ADA782AAD	UCA Root SM2
22	DNSPod OV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod OV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	BDF1F484808D223851B9C79662FC596F3DC820AA	8FDD10BD38AB8AA8C541CCFCC637F50F8B667E86C7DCAD02061614EAB53462E3	UCA Root SM2
23	DNSPod EV TLS SM2 CA G1	Signing Key	SM2	256 bits	CN = DNSPod EV TLS SM2 CA G1 O = DNSPod, Inc. C = CN	F6AEE376BEAFC14367FoC11D16A2A4A88D935D8C	3A381E099528FCEC2D94B3433D469F737543C0020C34E46CAA9E4EFF288A7AB2	UCA Root SM2
24	Keymatic Secure Domain SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Domain SM2 CA G1 O = PKI(Chongqing) Limited C = CN	1064E31D4774548526E2169E17E0E4E58F672FE3	077114080656553F7C2C0235311FAD3BDA492958C2E2AE8E720960565AEB9585	UCA Root SM2
25	Keymatic Secure Business SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Business SM2 CA G1 O = PKI(Chongqing) Limited C = CN	E81A57AF0C015AC3731CF3912F882D761C1408DF	676224C3F6E4EFF575F04073AC57AFD17C2A7D4270E5C19BB284C738FoE3C421	UCA Root SM2

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26	Keymatic Secure Site EV SM2 CA G1	Signing Key	SM2	256 bits	CN = Keymatic Secure Site EV SM2 CA G1 O = PKI(Chongqing) Limited C = CN	547FF1C3D65B AEA46A9DACA DEA94E8E1874 9D4A6	3DA7919952037C7 D1F962A37A4EA90 26C8483C2C4AFE3 E756FD3345DCF6B C150	UCA Root SM2
27	sslTrus SM2 DV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 DV TLS CA G1 O = sslTrus C = CN	F921F5B4756F5 159429644147A 63F443195BAC9 A	BDE9CF0D1DoA60 EA891Co37CBA7CC oD6036B2140319C 7A80E46D9CA38F AC2C4E	UCA Root SM2
28	sslTrus SM2 OV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 OV TLS CA G1 O = sslTrus C = CN	DD18CA5E337D D2EECCF5AB16 14E3559B43CF CB32	6C25FD7209E6190 8919204027B8DEC C4AoCo7469A99A5 3D66798FB96FF8A oEC7	UCA Root SM2
29	sslTrus SM2 EV TLS CA G1	Signing Key	SM2	256 bits	CN = sslTrus SM2 EV TLS CA G1 O = sslTrus C = CN	EB3B9889FD7B 8E7161C4F4D7 D2C1BC73433A FA52	65F06D7C7332F18 4A36B5C8ABB2F6 FC4DECA45249958 6A29693C3A4BF6 D3955A	UCA Root SM2
30	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E4 30FFA50Co85F 8C1567217401D FDF	9BEA11C976FE014 764C1BE56A6F914 B5A560317ABD998 8393382E5161AA0 493C	UCA Global G2 Root
31	SHECA SMIME CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA SMIME CA G1 O = UniTrust C = CN	1FA80B4DCF9C A6A53ADAB09 6AB9957B90A9 B7F5D	8100D384D6C4529 883C37C37C68FD4 903C41CCBCB9033 A9C733A6AF0806E 1DE7	UCA Global G2 Root
32	SHECA RSA Code Signing CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Code Signing CA G3 O = UniTrust C = CN	FD7EC87AC277 1C5687D2AEF8 07C7426A1B7C4 2A8	C7E976AA77E9249 1C269840B2F1461E 65147A2BB181EE59 AB63BCD86704FE 456	UCA Global G2 Root
33	SHECA RSA Domain Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Domain Validation Server CA G3 O = UniTrust C = CN	057A4D756FFD 0A83B16716757 73E14C5F53C54 8E	0A552A65F22FF82 0E7EC3D43BBF88 B02ABC34BD247E 0C3505891B6342F1 6A5F2	UCA Global G2 Root
34	SHECA RSA Organization Validation Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Organization Validation Server CA G3 O = UniTrust C = CN	316068091E32F 9F6CCC06215A A7B91AF4C119 D40	26FD4C4367E463D 39C71796AE4010E 53380DC93BC132F B019D6718A6873E 81F4	UCA Global G2 Root
35	SHECA RSA Time Stamp Authority G1	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Time Stamp Authority G1 O = UniTrust C = CN	6FC5770C4E82 5E4B544B30BD 9933F408571A3 DB4	86EE4A2F93137CA 8887674078B3940 70F189B3049DD2 D24053AE9292425 4C668	UCA Global G2 Root

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36	SHECA DV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA DV Server CA G5 O = UniTrust C = CN	D8E7061B645FAB3008887A2453AAE11C8304BF6D	778C516DAEC700E58B3581E411E5C0DD478663A5163A29895341507D6E964DD	UCA Global G2 Root
37	SHECA OV Server CA G5	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G5 O = UniTrust C = CN	0379A38D525FD4E988921F4358542502F4878B7E	8AB3A0ACF289E6EF754BE449236843D67F45C191BDDD66484B85E6E60556A9AF	UCA Global G2 Root
38	SHECA EV Server CA G2	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G2 O = UniTrust C = CN	86B148C0420A9C6F81FC4FDCD10F184BAAB5A6EA	4216527163AD2CA A825D3BF48F61A7661DoABC89B58A B76B23A1E10999F0769F	UCA Global G2 Root
39	SHECA Code Signing CA G4	Signing Key	sha256RSA	3072 bits	CN = SHECA Code Signing CA G4 O = UniTrust C = CN	73C3B39021CBF23BDA23D351F295C58BC678EE47	8FoC3E06A16E3EA7C9B15A848076ED15E51DA0B6F1AFA274EDE2B9102191FEOF	UCA Global G2 Root
40	SHECA Time Stamping CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA Time Stamping CA G2 O = UniTrust C = CN	CFDD9E670A6CB17E2C1A4F595387B2369BF96994	422C71F8DB9FDA2C65458B52363DB6FDC4E37B436774B CF97518F3F42EC725F1	UCA Global G2 Root
41	TrustAsia RSA DV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA DV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	9432E0D48ACD1D93E75C5372960C5EF1F3F67972	074ADD7F1E73EB110EC8E2B78A92C51CF5A451135B6F7DEFC019EE9D74BF A4D6	UCA Global G2 Root
42	TrustAsia RSA OV TLS CA - S1	Signing Key	sha256RSA	2048 bits	CN = TrustAsia RSA OV TLS CA - S1 O = TrustAsia Technologies, Inc. C = CN	F575D48E293E17A8A9C49EDCE6DB0A344D132AEB	D16BA9ACB74FEE4AA8087EE482E86E7F6F5F55FAC5025639730753FE1E705E3C	UCA Global G2 Root
43	SHECA Global G3 SSL	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 SSL O = UniTrust S = Shanghai C = CN	9820FoF1D942A6DE833F991019003D6868D20181	AEFFE4335EE56422E927F45E95AE142B9EB35979A7400569AE9BDEA6CAA BC1DC	UCA Global G2 Root
44	SHECA Global G3 Code Signing	Signing Key	sha256RSA	2048 bits	CN = SHECA Global G3 Code Signing O = UniTrust S = Shanghai C = CN	F73DF939A8D98754AC778EF5D995EEF835AB9439	EAA5AD8E9A2FA992354B2FF4254BEBo8A632F7F17602604DDED58D73D616D844	UCA Global G2 Root
45	Xinnet DV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet DV SSL O = 北京新网数码信息技术有限公司 C = CN	9D3AA5B8E2212783643FF578DC22B04E6BCB36D4	9C53902F9501F6D89766999DBE2AD1A1436420B652535CDC2DC51CCFE2F FEE68	UCA Global G2 Root

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46	Xinnet OV SSL	Signing Key	sha256RSA	2048 bits	CN = Xinnet OV SSL O = 北京新网 数码信息技术 有限公司 C = CN	4B78C0324A24 42784E9F83F0 DoFE336C7E0D 934F	3C07D7EFC8D458 F668C10D4F06F90 503CCD25D59E2B 3F1D58B32884D9E 4E3809	UCA Global G2 Root
47	SHECA MV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA G1 O = UniTrust C = CN	4F111E8FD4506 500D7CE56519 0AF012BFB143 845	C064FAB74E87231 64932A25CFB6708 106E1E5A3A05CFD 1079B1DCF52792C 5908	UCA Global G2 Root
48	SHECA IV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA G1 O = UniTrust C = CN	E010A54E644A 8F605F134C5C1 08E742C0168B BE5	2A1AAA3E4D7C6E C8BE083BDBDD24 7153A88D51F1226F D9691B872AE23D1 66BFF	UCA Global G2 Root
49	SHECA OV SMIME RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA G1 O = UniTrust C = CN	E3B8865D1EF2 FF2146219648B D54022EC93BC 85C	73BA9F7AE0924F3 567F0280568A705 0A58C9C4855DE0 686C2FDC48522EB 86D2D	UCA Global G2 Root
50	SHECA Code Signing CA G5	Signing Key	sha384RSA	3072 bits	CN = SHECA Code Signing CA G5 O = UniTrust C = CN	4CF2087E0172 B6C0A36E0655 BoF20C06293C E53F	51984B5D20306FE 69008A5B5EE5643 E5BF416443330910 653F00A21B609B2 D23	UCA Global G2 Root
51	JoySSL DV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA G1 O = JoySSL Limited C = CN	2A56E8EF40E0 A9999D6DD812 9FB79B056B88 2DED	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
52	JoySSL OV Secure Server CA G1	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA G1 O = JoySSL Limited C = CN	6BF2449C86D0 C6DED8510766 1B2748792342C B95	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
53	KeepTrust DV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	088BoDF30Bo9 66297021D02C 377300F5A7F4E 7E9	352582CCC85B394 4E3CD2505D9318F 22ABEA418BFF29A 0FE4D2C0DF280F 200E3	UCA Global G2 Root
54	KeepTrust OV TLS RSA CA G2	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G2 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	F68D3850B96E A8BEFC50CA91 247F1ABC9EA3 9D4D	CD50559A6DC5C7 04237EABF9A070B 79FoCDFC1A79C3A 6AC8C5E71E295A0 65D0A	UCA Global G2 Root

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55	ZoTrus RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA G1 O = ZoTrus Technology Limited C = CN	EC1EBCB71E09 2769EFA715E89 AA1677C33AA0 F5A	E7EF1AD946214B3 2AF03CC287930Do 464ED2C086D7A14 47C6E27FC9217D4 E16B	UCA Global G2 Root
56	ZoTrus RSA OV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA G1 O = ZoTrus Technology Limited C = CN	A0FA64A37EB8 3C7C194C51B7F E6A2BE8A39F7 8A4	3EC123D71DB27AE 1DC8F877286C222 F4167A2AE4FD7BC F370789EF4A9521 B8	UCA Global G2 Root
57	JoySSL DV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL DV Secure Server CA O = JoySSL Limited C = CN	807B3118B837D 850FD1C4AD98 79A5E426D00A 1A4	AA9CD0737407E9E 9D9D86B145A2CF D7CD385C28BCF5 996AA8D9A6DA5F C76F3A2	UCA Global G2 Root
58	JoySSL OV Secure Server CA	Signing Key	sha384RSA	3072 bits	CN = JoySSL OV Secure Server CA O = JoySSL Limited C = CN	21507E5079E68 0B202C0FBC1A FAD8026DC52 B8DD	0DD33FA366CA02 808D29A5C1C4564 96AB5015C3604EB 21C101406AF2533 D998A	UCA Global G2 Root
59	KeepTrust DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust DV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	5063446A28FA C2B3D5122D01 A63D9B858450 26CC	A879CB01A2661C2 55B9C2B9BE0B20 BA74EEA9546E21A 82C570E177CF5BF 4AEDA	UCA Global G2 Root
60	KeepTrust OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = KeepTrust OV TLS RSA CA G1 O = Shanghai Huandu Info Tech Co. Ltd. C = CN	04FA1B9DBC05 CD575CC6518D 5CDFE62CD151 BoC8	FFDoD9EEEEAFB B4C44F71392F20A 52E0F6589685493 3139640722DECFC 2D4658	UCA Global G2 Root
61	ZoTrus RSA DV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA DV SSL CA O = ZoTrus Technology Limited C = CN	7FEF9BoB9EB3 F717A576BBC75 80209DE73154 4B7	69C25861236502F 0C223443FD851A2 FB6ACB745BB814A D72BB2E50867C52 C3BB	UCA Global G2 Root
62	ZoTrus RSA OV SSL CA	Signing Key	sha384RSA	3072 bits	CN = ZoTrus RSA OV SSL CA O = ZoTrus Technology Limited C = CN	E92D57AB2A44 55799E2579371 23588FCDF187 AC3	219C59CCD06D021 oADCF6E8125700 D1578F69A0670A0 7FD9DDE99E4AC8 2524CD	UCA Global G2 Root

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63	CT2 DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 DV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	8955C1DB0608 F7A83C51CA3B F98F017B9009 8A73	4B316EDFC078028 6571E430CoA94231 B192B45666AF5DE BEE454FE08E4496 383	UCA Global G2 Root
64	CT2 OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = CT2 OV TLS RSA CA G1 O = Tianyi Security Technology Co., Ltd. C = CN	27937BF574A8 AF23A7F29E2B 03CFACC7182B 2EFA	A263B7CEFD1490 D04FD0EC31D969 5BAEE480EE861D1 2124C2BF8EBD8A 893652F	UCA Global G2 Root
65	SHECA FR EE DV TLS RSA CA G 1	Signing Key	sha384RSA	3072 bits	CN = SHECA FREE DV TLS RSA CA G1 O = UniTrust C = CN	F18082839D6B B5C20A6A43C2 D584A9F6F3EF 2DC9	DFD9FB07A42E81 216D6497FBC47BE 53D829BBFD6A918 8B02D5C8CDE29E 01CF5C	UCA Global G2 Root
66	SHECA FR EE DV TLS ECC CA G 2	Signing Key	sha384RSA	384 bits	CN = SHECA FREE DV TLS ECC CA G2 O = UniTrust C = CN	84BCFE29594A 85C0849FF0F2 1230812BE73F9 BBC	81DB88F4CDE7345 BoEC140E4A19372 0163DF9B787FABA oAF5A7EDACE6DC 315A6	UCA Global G2 Root
67	SHECA DV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA DV TLS ECC CA G6 O = UniTrust C = CN	7E44A7C621F5F 30E25293C07F 288ECC82F7BD 482	1F0570E418F9C89 E094CB26EDA71B 92BED81ACBB446 B2300D398DDB73 9AB7A6C	UCA Global G2 Root
68	SHECA OV TLS ECC CA G6	Signing Key	sha384RSA	384 bits	CN = SHECA OV TLS ECC CA G6 O = UniTrust C = CN	2569CCEFDDB56 4A83BAC15284 500F13D86104F EEo	C4DA2C937523D42 054FBB4AF694BB9 oFC7743C910EE04 8726241BD84C385 09D9	UCA Global G2 Root
69	DNSPod DV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod DV TLS RSA CA G1 O = DNSPod, Inc. C = CN	4CF1C77BBB5F 991923F8616FD 712F9749C5AE5 5C	A07A7DEFCD1ED2 3F36D22AC33421F 1D973583B12C96C A2496DE724C4494 CoCD2	UCA Global G2 Root
70	DNSPod DV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod DV TLS ECC CA G1 O = DNSPod, Inc. C = CN	B9A7EB6345AD B88940892F8B 69930658DA97 33CF	AACCD77057271FF 5F605DF8CC5A443 97E71CCE796EA79 B8F1E8658FC9CD5 2464	UCA Global G2 Root
71	DNSPod OV TLS RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = DNSPod OV TLS RSA CA G1 O = DNSPod, Inc. C = CN	38C22FB4856A B84A51911FE53 A7FE2BE110333 8F	F36592E33FD869E 917E33BADE683A4 EC20809D5C8B49 3A1427BA6DC066C B5AE3	UCA Global G2 Root
72	DNSPod OV TLS ECC CA G1	Signing Key	sha384RSA	384 bits	CN = DNSPod OV TLS ECC CA G1 O = DNSPod, Inc. C = CN	586EA65733443 DCE3CED5DEB F47E000FoE81 B28D	8C4BFF9AE3F079E 50208F84E4DA658 AB441109686861FF CEE50D4A8662C2 EEA1	UCA Global G2 Root

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
73	Keymatic Secure Domain RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Domain RSA CA G1 O = PKI(Chongqing) Limited C = CN	8ED096D6E8A4D935F386EBDA0B592E40521BoCBB	F3C9431A163BECE79562093F0734DF6ED05618551CFEE0ABA949A77E959D8AAE	UCA Global G2 Root
74	Keymatic Secure Domain ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Domain ECC CA G1 O = PKI(Chongqing) Limited C = CN	C1286B590B198916D776E6661E57D4460812EDDF	Bo7D2ACA4F29E2449B5ADB7CCB31C64C43854044A2DA A2AC838788026C684CoC	UCA Global G2 Root
75	Keymatic Secure Business RSA CA G1	Signing Key	sha384RSA	3072 bits	CN = Keymatic Secure Business RSA CA G1 O = PKI(Chongqing) Limited C = CN	5693F449C7E448C3C3D2BE86397E33368163A377	5523644185E21EF943A505A1C438167DA1FE7B14BEF2D243E53DE8C2B4263EB7	UCA Global G2 Root
76	Keymatic Secure Business ECC CA G1	Signing Key	sha384RSA	384 bits	CN = Keymatic Secure Business ECC CA G1 O = PKI(Chongqing) Limited C = CN	23368DE013A9BB36D76A66E1128EDA5F4A3620D5	75C4AF6628E7D01DD369593EFD727E3560ED9DDD67B04325655821BD23281A2B	UCA Global G2 Root
77	sslTrus RSA DV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA DV TLS CA G2 O = sslTrus C = CN	DEE386BAC52E630164E0C142943C3202967C6891	B3A5BED750BCE5A08C75E0012BoA6A67954952BC8D12520514CC15CBB0B17039	UCA Global G2 Root
78	sslTrus ECC DV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC DV TLS CA G2 O = sslTrus C = CN	624679EBA47FFA4CD98D6FFFDE6D6F7FE49E86E9	32CAA961415106CF471CEA5B15C66464A907C99861A297C359D174624BADB92F	UCA Global G2 Root
79	sslTrus RSA OV TLS CA G2	Signing Key	sha384RSA	3072 bits	CN = sslTrus RSA OV TLS CA G2 O = sslTrus C = CN	oEDFB68948064E10818E3C8108C824BB8B308F62	F0E647B5A2869A3487507A90549AF039896DB8BoFoE7CF92EF3AB567F3EC5E5C	UCA Global G2 Root
80	sslTrus ECC OV TLS CA G2	Signing Key	sha384RSA	384 bits	CN = sslTrus ECC OV TLS CA G2 O = sslTrus C = CN	BEE114C1BEF84DA5E3D4E41FCAoD1F81A90CoFEo	06B7E611243D2901B964FF6DoC53A2DB52BA2E1D41E17D74950E16605D9A2C90	UCA Global G2 Root

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
81	HTTPS Automation Research RSA DV SSL CA G1	Signing Key	sha384RSA	3072 bits	CN = HTTPS Automation Research RSA DV SSL CA G1 O = Shenzhen Yamu Security Technology Co., Ltd. C = CN	0FB6A84D71E5B1B38F9E72D6BBC06A147FE4D03B	1E426FF0F51EB4C285788B4418D2DAB21097230CED81119BA178A20AB1AABF67	UCA Global G2 Root
82	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	C1AFC65B1E813B0E6146E6AA5341681272ABE9A38D59F7BD1B27B729834A0D9C	Certum Trusted Network CA
83	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	3DD69C5BE170F943F804D1D31FE8F916CoC0226CDDD7AEA9AA9A0CDFD3474361	Certum Trusted Network CA
84	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	BB61408AED9F530B2EC0545E53BA2C8EBEAA57D9976447DB1663CED4600CD6B7	Certum Trusted Network CA
85	UCA Global G2 Root	Root Key	sha256RSA	4096 bits	CN = UCA Global G2 Root O = UniTrust C = CN	81C48CCCF5E430FFA50C085F8C1567217401DFDF	BFA95C5DF164B659FA32F6D10564D7170DDE661A853A782E6AB63639433BCB41	Certum Trusted Network CA
86	UCA Extended Validation Root	Root Key	sha256RSA	4096 bits	CN = UCA Extended Validation Root O = UniTrust C = CN	D9743AE4303D0DF712DC7E5A059F1E349AF7E114	D43AF9B35473755C9684FC06D7D8CB70EE5C28E773FB294EB41EE71722924D24	UCA Extended Validation Root
87	SHECA RSA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Code Signing CA O = UniTrust C = CN	8E40665F6AA940C2B9F1F04A22639564593707E5	D404FAFA4BA2F426B66CD219C6DA84F91C0FB7CB58429EC8077E2A764314D55D	UCA Extended Validation Root
88	SHECA RSA Extended Validation Server CA	Signing Key	sha256RSA	2048 bits	CN = SHECA RSA Extended Validation Server CA O = UniTrust C = CN	3B4B252A77372AFCB97FEDA8BDAF2299FC5DC5F4	4FD6FA527157EEA463689D7A4C2B934EF222279725413893D9847242C85CA9DF	UCA Extended Validation Root
89	SHECA EV Server CA G3	Signing Key	sha256RSA	2048 bits	CN = SHECA EV Server CA G3 O = UniTrust C = CN	54E972FB78669FE5CBF33B8F98465553739CoB84	7EF3F89456CE636557B20C5DFB37F98C253A0B660D2E9E5E7845CAF9C038C7C1	UCA Extended Validation Root
90	SHECA EV Code Signing CA G2	Signing Key	sha256RSA	3072 bits	CN = SHECA EV Code Signing CA G2 O = UniTrust C = CN	5007CC4DF6F4BA37FC13CE1F2D22C956D89EA503	DD84169585A2E7A216AEC4083265A8EB51A64F7C6F1943671F8584C73F79A74	UCA Extended Validation Root

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
91	SHECA OV Server CA G6	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G6 O = UniTrust C = CN	FB7DCE4905B420BCFFBF0D8471ADAE0135F961A0	264DF1458FB5EF1FC9DF9F1345E84A6CC1A471CF475AE7598FF52B86713519FB	UCA Extended Validation Root
92	SHECA OV Server CA G7	Signing Key	sha256RSA	2048 bits	CN = SHECA OV Server CA G7 O = UniTrust C = CN	A0F344BA17512C7776AB4442C5534B16AB5F0DAA	F6F8BCD413C9733166E85843B468DD36E727152D9A37B15129CoE7648ECE639	UCA Extended Validation Root
93	SHECA Extended Validation SSL CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation SSL CA O = UniTrust C = CN	4D140DEA6B559CoCA6E1BB7BE86A966D175E7CB5	25BFDB1C5FE2CC E051EC6DFBF2BB24E78C92F969B1B37867DAEDF93D1A7AE7E	UCA Extended Validation Root
94	SHECA Extended Validation Code Signing CA	Signing Key	sha256RSA	2048 bits	CN = SHECA Extended Validation Code Signing CA O = UniTrust C = CN	7498996F6A15C0062520851CAF2B316B87EDA3DB	A392C645B9A5AD6A214F19DE776346BC7DD6BB15818E433886DAC54EE6661852	UCA Extended Validation Root
95	SHECA EV Code Signing CA G3	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA G3 O = UniTrust C = CN	6D325FA74CC0EEC89B7C6A3C0F2E33CA55EB99A8	E00AC33AC715D8BC3B6607A4165AE8428F9274B4224AB3D8CF36E8C8D62834A3	UCA Extended Validation Root
96	UniTrust Event Certificate Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Event Certificate Root CA R1 O = UniTrust C = CN	D7418BEED45FC6E97D69108608AC7EE48BA0727E	3200B1BC5CF8F8BCoA382BD7809166A221600747DEC386D2625959CD75A28212	UniTrust Event Certificate Root CA R1
97	SHECA Event Certificate CA G1	Signing Key	sha256RSA	2048 bits	CN = SHECA Event Certificate CA G1 O = UniTrust C = CN	2A4D7575347FFFB46A57513816FFA99EEAAFoF4F	32AE6837AEF2DABBC8C19385A57A19FC97F6BDB8384B1ADCCDEAED3A891A3AoF	UniTrust Event Certificate Root CA R1
98	Orient Fortune Securities Co., Ltd Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Orient Fortune Securities Co., Ltd Identity CA G1 O = 东方财富证券股份有限公司 C = CN	8F155742AFDF87B618F8622DAB2E07091A796249	115250822139D3C6A49C821ABB19630FAC617190DAA3CF7373D3C95F082CBDF7	UniTrust Event Certificate Root CA R1
99	Shanghai Eastmoney Futures Co., Ltd. Identity CA G1	Signing Key	sha256RSA	2048 bits	CN = Shanghai Eastmoney Futures Co., Ltd Identity CA G1 O = 上海东方财富期货有限公司 C = CN	D09AE4CC4499268F8D72F83789C45F3F11B7BA8D	B4800869058B4B74CA970B3414FEDE2F676D90F979E4961325AD72B13ABE8866	UniTrust Event Certificate Root CA R1

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
100	UniTrust Global Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Root CA R1 O = UniTrust C = CN	3CA061BoEFDA C6E8BB2DE156 A2EBBBB63D2 32381	81B35EFC42C7794 7209D76B51B5E7B 122CE78348AE8C4 525DC8D4B30289 E5385	UniTrust Global Root CA R1
101	SHECA DV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA DV Server CA 1A O = UniTrust C = CN	653740EoBBF4 3905206A8C9C AoACB3BBD69 68CAo	D3D4A040BB41A6 95A96E3AAD93814 CF7EF219D581920 6E947B44DCC5B8 E5E272	UniTrust Global Root CA R1
102	SHECA OV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA OV Server CA 1A O = UniTrust C = CN	8CD02E82008E E2DEFF71F61A1 05C74A826E85 8D1	9A3DBoFoFB0FF4 F974A4EoC510A7C 13D350485B1E6CD F5A899BB24DoF4 99E9BD	UniTrust Global Root CA R1
103	SHECA EV Server CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Server CA 1A O = UniTrust C = CN	73E36DF62D86 2F57DF69A536 87231C85E0170 216	2F1CA1A5CoD7AE5 8C7ADFC69D4C57 EE815F39CoF3D1F 982E3AC76D25AB7 23995	UniTrust Global Root CA R1
104	SHECA Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing CA 1A O = UniTrust C = CN	21B34B4FC6DD 33246E861BAC EBF182D7EFCA 2CDA	59E3EF6680BCCo B1162DED4929D37 E698C6A5CBEE075 Co3F1173AD653CF 91CED	UniTrust Global Root CA R1
105	SHECA EV Code Signing CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing CA 1A O = UniTrust C = CN	510BE3C14EAB DFEA38FF434E 2C97339CoBFC 27A9	03E04A3C2B5200 BB27C679A372618 52BAC7D46F3F371 E4ECA80225AE28 8E4CFC	UniTrust Global Root CA R1
106	SHECA Time Stamping CA 1A	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping CA 1A O = UniTrust C = CN	8FBFB44A46F6 47EDF6EB8A0 B5E160943089 6FA46	2DFDBF6CEC0587 B55F1300F109BC4 6EFD16BC7EB5F43 CAE563953D87C7B 432C4	UniTrust Global Root CA R1
107	UniTrust Global Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Root CA R2 O = UniTrust C = CN	E45366B7B7A4 E9D7CCC121Eo 4ACFCCAC01BC 72BC	78919B35D1C61559 5A51328A5C54608 3B4D5320724A258 695B991F2F61C4D CC7	UniTrust Global Root CA R2
108	SHECA DV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV Server CA 2A O = UniTrust C = CN	A1221170BEC86 65F6ECB104C4 EDB38EA9C1F9 14D	69201DC24E4127F FA5B41AoDDFoA1 A005CooF334Bo03 F1008924CBF998E 1827C	UniTrust Global Root CA R2
109	SHECA OV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV Server CA 2A O = UniTrust C = CN	98CDEC338767 F39422373810B 735BA7C683A8 259	8E2CA2825C20398 04A7A1CC54Bo02E A1DB30AC489698F 039527BF1602132F 611	UniTrust Global Root CA R2
110	SHECA EV Server CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV Server CA 2A O = UniTrust C = CN	44661C71EF69B 7930AB5B771D 83B114CFA843 D77	93E49170D20F54D A701118A5ABDCD DA4FFCF334CDB2 D8D80599AB6284 8C85F80	UniTrust Global Root CA R2
111	UniTrust Global Root CA R3	Root Key	SM2	256 bits	CN = UniTrust Global Root CA R3 O = UniTrust C = CN	3B15E62B1C9F5 015B64EA16D16 3A558AF4905F B5	6A19BCC7FAD2A56 64F779BF143A72A 2Bo79AC476E56FA CBA48C352635CB4 718F	UniTrust Global Root CA R3

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
112	SHECA DV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA DV Server CA 3A O = UniTrust C = CN	26924A66CDED A9AD2DD7DoA E53C5DE95436 A2C61	E464F2E140327DA 8326C53A2FBA322 F183E6DEFC56888 A0811195265650BC AD1	UniTrust Global Root CA R3
113	SHECA OV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA OV Server CA 3A O = UniTrust C = CN	6F465A89CFB1 74BB558EB3A5 6Do8093233E3 6D2F	19B057AB0827E37 C8EB2EA7C04292 068A253A3BEDCo C45848881CoBA78 E717CF	UniTrust Global Root CA R3
114	SHECA EV Server CA 3A	Signing Key	SM2	256 bits	CN = SHECA EV Server CA 3A O = UniTrust C = CN	988B07A078C9 7576AF0CA1A72 3E87F4E9B482 689	7F4A5FBCA47F890 4DoAEA5D3BFA57 59C4768BA6510EB 1FEB5E5B076D129 07741	UniTrust Global Root CA R3
115	UniTrust Global Code Signing ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Code Signing ECC Root CA R2 O = UniTrust C = CN	D6E2F5C7B440 515C5A3A5C49 0EFCB8C23950 3CDB	8854E81F9C6B47E 438BBAE17E41F8B E4E68589AFD31A4 8BEE3F203F6DD3 DA517	UniTrust Global Code Signing ECC Root CA R2
116	SHECA Code Signing ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA Code Signing ECC CA 2A O = UniTrust C = CN	3A5576122E385 EB715671EE385 BF1E3DoAC77A 1A	953707AE07AF349 70462E8C02AC3D1 0949D3684Do6338 5277F31869508007 D23	UniTrust Global Code Signing ECC Root CA R2
117	SHECA EV Code Signing ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV Code Signing ECC CA 2A O = UniTrust C = CN	BFAE7906E977 6B61Do1E45799 86F2698B66DF 25E	545BD126658352B 306EE74185173F17 74A79467A26E9BB 6AE0ED44D86615 DE5A	UniTrust Global Code Signing ECC Root CA R2
118	UniTrust Global Code Signing RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Code Signing RSA Root CA R1 O = UniTrust C = CN	60C14C87BDAA B27B678E4EA7 921C519B481BA 860	6357353A4BBCA3D 5A158C95BE9DC90 FoB3E2F6A6310FD 5371FCB4C41E5E1B B4C	UniTrust Global Code Signing RSA Root CA R1
119	SHECA Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Code Signing RSA CA 1B O = UniTrust C = CN	046DED1C4A44 C827558CD17D 7B17CCoC53957 9DE	4C5F7C561295B97F E7616389A2B549A 0D4598D0BD15EB FEA53AB518714CB 8434	UniTrust Global Code Signing RSA Root CA R1
120	SHECA EV Code Signing RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA EV Code Signing RSA CA 1B O = UniTrust C = CN	7E2561771672A EE063F1C07B7 CAC6F3AAE44C DC3	A85CBD3FD9F3BF E220DE0A09B52D 5AA6F627EE9297F EFCE8706073A41B 993C79	UniTrust Global Code Signing RSA Root CA R1
121	UniTrust Global SMIME ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global SMIME ECC Root CA R2 O = UniTrust C = CN	2D4D94407CFF C45D4357F1905 57448CF6CBEA 343	6F4E2464D216A1E 0B558BB204259B4 A545AEB948957AA 3EAF11B2F4DE1AF EF10	UniTrust Global SMIME ECC Root CA R2
122	SHECA IV SMIME ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA IV SMIME ECC CA 2A O = UniTrust C = CN	EBC1D6F67F29 09A9928A90B4 295818A02F3C AF1B	E82D794C1AC79F9 BEBF3B6D98A237 F84C15FD40C3AB B86C2214E699414 F8FF54	UniTrust Global SMIME ECC Root CA R2

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
123	SHECA MV SMIME ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA MV SMIME ECC CA 2A O = UniTrust C = CN	FE0328035B69 3E5EDC5FAE0 B742735DCC38 C66F0	D7C4AB9D315AE8 B889DA902C55264 295D8CDC0F54713 70490F4D4585E2C 3C6D3	UniTrust Global SMIME ECC Root CA R2
124	SHECA OV SMIME ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV SMIME ECC CA 2A O = UniTrust C = CN	BD34144476B0 6DoF264C3CA9 C349AC7153D4 EF55	229B7FBCA2361DE 63171067DE91DFF B3D2FA71A5ABE51 CA41D5300C5750D 2FoE	UniTrust Global SMIME ECC Root CA R2
125	UniTrust Global SMIME RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global SMIME RSA Root CA R1 O = UniTrust C = CN	DF08E3E977C1 FoFBF5F8D419 504C7719F206C BA3	FoF255ADA2A643 CoA1E7C8F54F3ED 3DD25EF0E7378E7 6F7C127517ECFD95 2803	UniTrust Global SMIME RSA Root CA R1
126	SHECA IV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA IV SMIME RSA CA 1A O = UniTrust C = CN	D38BCDC445B1 E8DoAFDD8BE 8E4A6B5B30A7 1EF4E	82BA6F106746838 3757DF53F1628258 043BBB972E1CAD3 1FD7AAD0ADD66A 5B53	UniTrust Global SMIME RSA Root CA R1
127	SHECA MV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA MV SMIME RSA CA 1A O = UniTrust C = CN	5A4AEFED9AE 84052DA320BB B32C4E529ECD C5255	92148A115D26B287 254B36164164B222 oEE36B405D3B70 8CF5B7AB060C66 B1FE	UniTrust Global SMIME RSA Root CA R1
128	SHECA OV SMIME RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV SMIME RSA CA 1A O = UniTrust C = CN	Co61C3D053C9 F412C5C9192D BB638305E4CA 7EF8	6B661B964F2359C 4CA68355243A2EE EDA9BACDA191D1 03AoC1119EC89201 8AC7	UniTrust Global SMIME RSA Root CA R1
129	UniTrust Global Time Stamping ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global Time Stamping ECC Root CA R2 O = UniTrust C = CN	C20E70D5E401 5590A717B62D DDB5389D7627 A1B7	90711D905CFF3C77 3A7320B5188A960 C8A7D9E5966FA73 284D64A4BF3E2F DA48	UniTrust Global Time Stamping ECC Root CA R2
130	SHECA Time Stamping ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA Time Stamping ECC CA 2A O = UniTrust C = CN	41315BE8FD8C 3C65630168307 AoB30EC097F1 069	oE3FC096DDCC32 05047F9042D5788 2A1144107243C47C DE6FFFDE403A5B 7CA04	UniTrust Global Time Stamping ECC Root CA R2
131	UniTrust Global Time Stamping RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global Time Stamping RSA Root CA R1 O = UniTrust C = CN	DA891E9DC30F 38DAB0896CC DC5FDD7504F1 55B30	1759727D9E6679B0 69DD3AFA910E277 9C42007AAB206A1 69C66E6E2A3D177 4Bo	UniTrust Global Time Stamping RSA Root CA R1
132	SHECA Time Stamping RSA CA 1B	Signing Key	sha384RSA	4096 bits	CN = SHECA Time Stamping RSA CA 1B O = UniTrust C = CN	CC140216769CC 1FCECFCA02C9 oC63AB0B6A36 181	9A46D52BoF6A913 E6BF3EE6DCFEO8 B2664DEE2AF704 FD4931E8DoC38F3 D76Doo	UniTrust Global Time Stamping RSA Root CA R1
133	UniTrust Global TLS ECC Root CA R2	Root Key	sha384ECDS A	384 bits	CN = UniTrust Global TLS ECC Root CA R2 O = UniTrust C = CN	7935AD798A95 305C3E05A6751 61A97000F6FC C90	6C689FC6B014A1F BoCDEB5A3996171 C15E728610602853 2E0210CEA8D9CD 4E97	UniTrust Global TLS ECC Root CA R2

#	密钥名称	密钥种类	密钥算法	密钥长度	主体识别名	密钥 ID	证书指纹 (SHA256)	证书签发者
134	SHECA DV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA DV TLS ECC CA 2A O = UniTrust C = CN	CB65E62F50175 F2C172B433F3A 043CD213569A 66	D690D8722EA89C D761790144952065 3339386AC4939F7 EC5C1B195D9C3C9 5FA4	UniTrust Global TLS ECC Root CA R2
135	SHECA EV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA EV TLS ECC CA 2A O = UniTrust C = CN	B353900B5E40 A4952EA85A27 F413ABBAD631 F233	05E4C4B1F258030 690E6793C9C13C6 F6AE234F68E5C41 236FDC919B7F589 032F	UniTrust Global TLS ECC Root CA R2
136	SHECA OV TLS ECC CA 2A	Signing Key	sha384ECDS A	384 bits	CN = SHECA OV TLS ECC CA 2A O = UniTrust C = CN	A065578C43B2 546C4E18DF86 AED56725A9B7 659C	08BA64405A3406C 97BDCBD0E44224 E6DD341F3EC93F1 368457DFA7CAC88 BE150	UniTrust Global TLS ECC Root CA R2
137	UniTrust Global TLS RSA Root CA R1	Root Key	sha384RSA	4096 bits	CN = UniTrust Global TLS RSA Root CA R1 O = UniTrust C = CN	F2ADBFA6708 F09672E633D6 5175A24759C90 0C4	4BABE0E9328D5D AE17936F3DDAA2 442BFBDD0873F9 2FB8D1FBB3D98 94649AD9	UniTrust Global TLS RSA Root CA R1
138	SHECA DV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA DV TLS RSA CA 1A O = UniTrust C = CN	C5E3A87F7EED BC3E7108B34E F490EF2F2F136 7D1	FFABEA74895DC0 C78C224597472CF 6937E0D740EF49D C2256C8E75A2A2A 15EDE	UniTrust Global TLS RSA Root CA R1
139	SHECA EV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA EV TLS RSA CA 1A O = UniTrust C = CN	60651A135EAB2 B98A5A1041B3 057A1D02FC61 2E5	B2525A5966CA68C A7F504F0A21FD73 847D174F89B4885 2A3E970588E1EAF C774	UniTrust Global TLS RSA Root CA R1
140	SHECA OV TLS RSA CA 1A	Signing Key	sha384RSA	3072 bits	CN = SHECA OV TLS RSA CA 1A O = UniTrust C = CN	F463091C1E278 8B75DBBE9164 4B1744A34F34B 46	7F8EF707C2D9A4B 7D4ED5FDDC8AF4 A64D99BF297D03 F8F01C4375DE74B 1C7DE1	UniTrust Global TLS RSA Root CA R1