SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

GLOBAL COMPLIANCE AND TESTING CENTER OF HUAWEI TECHNOLOGIES CO., LTD.[1]
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ELECTRICAL (EMC)

Valid to: April 30, 2016 Certificate Number: 2174.01

In recognition of the successful completion of the A2LA evaluation process (including an assessment of the organization's compliance with A2LA's EPA ENERGY STAR® Accreditation Program[3] requirements), accreditation is granted to this laboratory to perform the following tests: Electromagnetic Compatibility (EMC), Product Safety, Telecommunication, OTA, HAC and SAR tests:

Test(s):	**Test Method(s):**
Emissions	
Conducted and Radiated	CFR 47 FCC Part 15, Subpart B (using ANSI C63.4:2009); CFR 47 FCC Part 18 (using FCC OST/MP-5); CISPR 22 (2008); AS/NZS CISPR 22 (2009); CAN/CSA-CEI/IEC CISPR 22; EN 55022; GB 9254; CISPR 11; EN 55011; GB 4824; VCCI V-3 (*up to 6 GHz*); VCCI V-4; CNS 13438 (*up to 6 GHz*); ICES 003; IEC/EN 61000-6-3; IEC/EN 61000-6-4
Current Harmonics	EN 61000-3-2; IEC/EN 61000-3-12; GB 17625.1
Voltage Fluctuations & Flicker	EN 61000-3-3; IEC/EN 61000-3-11; GB 17625.2
Immunity	
Electrostatic Discharge (ESD)	IEC/EN 61000-4-2; GB/T 17626.2
Radiated Immunity (*up to 8 GHz, 35 V/m*)	IEC/EN 61000-4-3; GB/T 17626.3
Electrical Fast Transient/Burst	IEC/EN 61000-4-4; GB/T 17626.4
Surge Immunity	IEC/EN 61000-4-5; GB/T 17626.5; ITU-T K.20, K.21, K.43, K.44, K.45

Test(s):	**Test Method(s):**
Immunity (Cont'd)	
Conducted Immunity	IEC/EN 61000-4-6; GB/T 17626.6
Pulsed Magnetic Field Immunity	IEC/EN 61000-4-9; GB/T 17626.9
Voltage Dips, Short Interruptions, and Line Voltage Variations	IEC/EN 61000-4-11; GB/T 17626.11
Voltage Dips, Short Interruptions, and Line Voltage Variations on DC Input Power Ports	IEC/EN 61000-4-29; GB 17626.29
AC Power Fault	GR-1089-CORE; ITU-T K.20, K.21, K.44, K.45
DC Power Interface Requirements and Methods for Telecommunications Equipment	ETSI EN 300 132-2; GR-1089-CORE; BTNR 2511; ATT-TP-76200; ANSI T1.315
Generic and Product Family Standards	IEC/EN 61000-6-1; IEC/EN 61000-6-2; CISPR 24; EN 55024; GB 17618; EN 50130-4; EN 50155; EN 50121-3-2; EN 50121-4; IEC/EN 60601-1-2; IEC/EN 61326-1; IEC/EN 62040-2; IEC 61850-3; IEC/TS 61000-6-5; IEEE 1613; Annex to Resolution # 442; SD/EMI-02/03; ITU-T Rec. K.48; ITU-R SM.329; ETSI EN 301 489-1, -3, -4, -6, -7, -8, -17, -19, -23, -24, -25, -26, -50; ETSI 300 487
Telecommunication Standards	GR-1089-CORE; GR-3160-CORE; GR-3108-CORE; ETSI EN 300 386; GB 19286; ETSI ES 201 468; ITU-T Rec. K.43
Telecom	AS/CA S002; AS/CA S003.1; AS/CA S003.2; AS/ACIF S041.1; AS/ACIF S041.2; AS/ACIF S041.3; AS/ACIF S043.1; AS/ACIF S043.2
Radio Frequency Test (Up to 220 GHz)	
Unlicensed Radio – FCC	CFR 47 FCC Part 2; CFR 47 FCC Part 15, Subpart C (ANSI C63.4:2009); CFR 47 FCC Part 15, Subpart E (ANSI C63.4:2009) (*excluding DFS testing*); ANSI C63.10:2009; ANSI C63.10:2013

Test(s):	**Test Method(s):**[2]
Radio Frequency Test (cont'd) (Up to 220 GHz)	
Licensed Radio – FCC	CFR 47 FCC Part 2; CFR 47 FCC Part 20; CFR 47 FCC Part 22, Subpart H; CFR 47 FCC Part 24, Subpart E; CFR 47 FCC Part 27, Subparts C, L, and M; CFR 47 FCC Part 90; CFR 47 FCC Part 101; ANSI/TIA-603-C-2004
Canada	RSS-Gen; RSS-130; RSS-131; RSS-132; RSS-133; RSS-139; RSS-192; RSS-197; RSS-199; RSS-210
European Union (EU)	ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 330-1; ETSI EN 300 330-2; ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI EN 300 328; ETSI EN 301 502; ETSI EN 301 511; ETSI EN 301 449; ETSI EN 301 893 (*excluding DFS testing*); ETSI EN 301 526; ETSI EN 302 326; ETSI EN 301 126; ETSI EN 301 390; ETSI EN 302 217; ETSI EN 301 406; ETSI EN 302 291; ETSI EN 302 502; ETSI EN 302 544; ETSI EN 302 623; ETSI EN 300 609-4; ETSI EN 301 908-1, -2, -3, -4, -5, -10, -11, -12, -13, -14, -15, -18, -19, -20
Australia	AS/NZS 4268
Japan	TELEC-T112; TELEC-T136; TELEC-T137; TELEC-T138; TELEC-T139; TELEC-T145; TELEC-T146
RF Signaling	3GPP2 C.S0010; 3GPP2 C.S0011; 3GPP2 C.S0032; 3GPP2 C.S0033; 3GPP TS 51.021; 3GPP TS 51.010-1; 3GPP TS 25.141; 3GPP TS 34.121-1; 3GPP TS 36.141; 3GPP TS 36.521-1; 3GPP TS 37.141 (*excluding protocol testing*)
Electromagnetic Field Radiation Exposure and SAR	EN 50385; EN 50383; EN 50400; EN 50401; EN 50392; IEC/EN 60215; IEC/EN 62311; IEC/EN 62233; FCC OET Bulletin 65; CFR 47 FCC Part 1; RSS-102; IEEE/ANSI C95.1; IEEE C95.3; KDB447498; EN 50360; EN 50371; EN 62479; EN 50566; EN 50364; IEC/EN 62209-1; IEC/EN 62209-2; IEEE 1528; IEEE 1528a; CFR 47 FCC Part 2

Test(s):	**Test Method(s):**[2]
Hearing Aid Compatibility (HAC)	ANSI IEEE C63.19; CTIA HAC Test Plan Rev. 2.0
Over The Air (OTA)	CTIA Test Plan for Mobile Station OTA 3.1; CTIA Test Plan for Wireless Device OTA 3.2.2; 3GPP TS34.114; 3GPP TR25.914; 3GPP TS25.144; YD/T 1484; CTIA Test Plan for RF Performance Evaluation of Wi-Fi Mobile Converged Devices Version 1.3
Product Safety	IEC 60950-1; EN 60950-1; AS/NZS 60950-1; UL 60950-1; GB 4943.1; CAN/CSA C22.2 No 60950-1; *(The above standards exclude clauses 2.8, 2.10.6, 2.10.7, 2.10.8, 2.10.9, 4.2.8, 4.3.10, and 4.3.12);* GR-1089-CORE, Chapters 4.6.5, 4.9.5, 7, and 9; AT&T ATT-TP-76200 7.10, 7.11; IEC 60950-21; EN 60950-21; UL 60952-21; IEC 60950-22; EN 60950-22; UL 60950-22 *(The above standards include Clauses D.2 and D.3)*

Test(s):	**Test Method(s):**[2]
Energy Efficiency & EPA ENERGY STAR Testing	ATIS-0600015; ATIS-0600015.01; ATIS-0600015.02; ATIS-0600015.03; ATIS-0600015.04; ATIS-0600015.05; ATIS-0600015.06 VZ.TPR.9205; ETSI ES 203 215; CCSA: Energy Efficiency Parameter and Measurement Method for Ethernet Switch; CCSA: Energy Efficiency Parameter and Measurement Method for Router; CCSA: EER (Energy Efficiency Ratio) Measurement Method for Servers; CCSA: General Principles of Energy Consumption Test Methods for Telecommunication Equipment; ENERGY STAR Program Requirements for Computer Servers; Code of Conduct on Energy Consumption of Broadband Equipment; ENERGY STAR Test Method for Computer Servers (April 2013); Standard Performance Evaluation Corporation (SPEC) most current Server Efficiency Rating Tool (SERT); ETSI TS 102 706; Generalized Test Protocol for Calculating the Energy Efficiency of Internal Ac-Dc and Dc-Dc Power Supplies; Code of Conduct on Energy Efficiency of External Power Supplies; IEC 62301; IEC 62087; ENERGY STAR® Program Requirements Product Specification for Uninterruptible Power Supplies; ENERGY STAR Test method for Uninterruptible Power Supplies, Rev. May 2012; ETSI ES 201 554; (EC) No 278/2009; (EC) No 1275/2008

1 This accreditation covers testing performed at the main laboratory listed above, and the satellite laboratories listed below.

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Test(s):	**Test Method(s):**[2]
Conformance Testing NFC Forum	NFC Digital Protocol Technical Specification (using NFCForum_TestCasesForDigitalProtocol); NFC Forum Type 1 Tag Operation Specification (using NFCForum_TestCasesForType1Tag); NFC Forum Type 2 Tag Operation Specification (using NFCForum_TestCasesForType2Tag); NFC Forum Type 3 Tag Operation Specification (using NFCForum_TestCasesForType3Tag); NFC Forum Type 4 Tag Operation Specification (using NFCForum_TestCasesForType4Tag); NFC Logical Link Control Protocol (LLCP) Technical Specification (using NFCForum_Test_Cases_for_LLCP); NFC Data Exchange Format (NDEF) Technical Specification (using TestCasesForSNEP); Simple NDEF Exchange Protocol Technical Specification; (using TestCasesForSNEP); NFC Analog Technical Specification (using NFCForum_TestCasesForAnalog;); NFCForum-CS-DeviceTestApplication
GSM	3GPP TS 51.010-1; 3GPP TS 51.010-2; 3GPP TS 51.010-4; 3GPP TS 11.10-4; ETSI EN 301 511
WCDMA	3GPP TS 34.121-1 (*excluding Release 7);* 3GPP TS 34.121-2; 3GPP TS 34.171; 3GPP TS 34.123-1; 3GPP TS 34.123-2 ETSI EN 301 908-1; ETSI EN 301 908-2
LTE	3GPP TS 36.523-1; 3GPP TS 36.523-2
USIM and USAT	3GPP TS 31.121; 3GPP TS 31.124
UICC	ETSI TS 102 230
SWP and HCI	ETSI TS 102 694-1; ETSI TS 102 695-1

American Association for Laboratory Accreditation

Accredited Laboratory

A2LA has accredited

GLOBAL COMPLIANCE AND TESTING CENTER OF HUAWEI TECHNOLOGIES CO., LTD.

Shenzhen, China

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2005 *General requirements for the competence of testing and calibration laboratories*. This accreditation demonstrates technical competence for a defined scope and the operation of a laboratory quality management system (*refer to joint ISO-ILAC-IAF Communiqué dated 8 January 2009*).

Presented this 12th day of May 2014

President & CEO
For the Accreditation Council
Certificate Number 2174.01
Valid to April 30, 2016

For the types of tests to which this accreditation applies, please refer to the laboratory's Electrical Scope of Accreditation.