



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

SHENZHEN CTL TESTING TECHNOLOGY CO., LTD.
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ELECTRICAL (EMC)

Valid to: February 29, 2020

Certificate Number: 4343.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following automotive electromagnetic compatibility tests:

Test(s):

Test Methods:

Emissions

Radiated and Conducted

CFR 47, FCC Part 15B (using ANSI C63.4:2014);
CFR 47, FCC Part 18 (using MP-5:1986);
CISPR 11; EN 55011; AS/NZS CISPR 11; CISPR 13;
EN 55013; AS/NZS CISPR 13; CISPR 14.1; EN 55014-1;
AS/NZS CISPR 14.1;
CISPR 15; EN 55015; AS/NZS CISPR 15;
CISPR 32; EN 55032; AS/NZS CISPR 32;
CISPR 35; EN 55035;
VCCI V-3 (up to 6 GHz); VCCI V-4;
ICES-001; ICES-003; ICES-005;
EN301489-1; EN301489-3; EN301489-5; EN301489-8;
EN301489-9; EN301489-17; EN301489-19; EN301489-13;
EN301489-15; EN301489-28; EN301489-34; EN301489-50;
EN301489-52; EN301489-53

Harmonics and Flicker

EN 61000-3-2; IEC 61000-3-2;
EN 61000-3-3; IEC 61000-3-3

Immunity

Electrostatic Discharge (ESD)

EN 61000-4-2; IEC 61000-4-2

Electrical Fast Transient/Burst

EN 61000-4-4; IEC 61000-4-4

Surge Immunity

EN 61000-4-5; IEC 61000-4-5

Conducted Immunity

EN 61000-4-6; IEC 61000-4-6

Power Frequency Magnetic Field
Immunity

EN 61000-4-8; IEC 61000-4-8



Shenzhen CTL Testing Technology Co., Ltd.
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Test(s):

Immunity (cont'd)

Voltage Dips, Short Interruptions,
and Line Voltage Variations

RF Electromagnetic Field
(80 MHz to 6000 MHz)

Generic or Product Specific

Test Methods:

EN 61000-4-11; IEC 61000-4-11

EN 61000-4-3; IEC 61000-4-3

CISPR 14-2; EN 55014-2; AS/NZS CISPR 14-2;
CISPR 35; EN 55035;
CISPR 24; EN 55024;
IEC 61000-6-1; EN 61000-6-1;
IEC 61000-6-2; EN 61000-6-2;
IEC 61000-6-3; AS/NZS 61000.6.3;
EN 61000-6-4; IEC 61000-6-4; AS/NZS 61000.6.4;
EN 61204-3; IEC 61204-3;
EN 61547; IEC 61547

Intentional and Unintentional Radiators (up to 40 GHz)

Unlicensed Radio – FCC

CFR 47, FCC Part 2;
CFR 47, FCC Part 15 Subpart C/E
(using ANSI C63.10:2013 and FCC KDB 905462 D02 (v01));
ANSI C63.4:2014

Licensed Radio – FCC

CFR 47, FCC Part 22, Part 24, Part 25, Part 27;
CFR 47, FCC Parts 73 and 74H (using ANSI/TIA-603-D);
CFR 47, Part 90, Part 95, Part 97, Part 101
(using ANSI/TIA-603-D)

Unlicensed Radio – Canada

RSS-GEN; RSS-247; RSS-210; RSS-310; RSS-216
(using ANSI C63.4 and ANSI C63.10)

Licensed Radio – Canada

RSS-Gen; RSS-119; RSS-123; RSS-130; RSS-132;
RSS-133; RSS-139; RSS-199
(using ANSI C63.4:2014 and ANSI C63.10:2013)

Australia

AS/NZS 4268; AS/NZS 4295; AS/NZS 4365;
AS/NZS 4768.1; AS/NZS 4768.2

European Union (EU) – RF

EN 300 220-1; EN 300 220-2; EN 300 220-3-1;
EN 300 220-3-2; EN 300 220-3-4; EN 300 330;
EN 300 440; EN 302 208; EN 300 328; EN 301 893;
EN 301 511; EN 301 908-1; EN 301 908-2; EN 301 908-11;
EN 301 908-13; EN 301 908-15; EN 303 609; EN 301 357;
EN 300 422; EN 300 086; EN 300 340; EN 300 345;
EN 300 113; EN 300 296; EN 300 219; EN 303 405;
EN 300 390; EN 300 433

Assessment of electronic and electrical
equipment related to human exposure
restrictions for electromagnetic fields
(excluding SAR)

EN 62479; EN 62311; EN 50364; EN 50385; RSS-102;
KDB 447498; KDB 865664



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Testing Activities Performed in Support of FCC Declaration of Conformity and Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1 ¹:

Rule Subpart/Technology	Test Method	Maximum Frequency
Unintentional Radiators Part 15B	ANSI C63.4:2014	40000 MHz
Industrial, Scientific, and Medical Equipment Part 18	FCC MP-5 (February 1986)	40000 MHz
Intentional Radiators Part 15C	ANSI C63.10:2013	40000 MHz
U-NIII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	40000 MHz
U-NIII with DFS Intentional Radiators Part 15E	FCC KDB 905462 D02 (v01)	40000 MHz
Commercial Mobile Services (FCC Licensed Radio Service Equipment) Parts 22 (cellular), 24, 25 (non-microwave), and 27	ANSI/TIA-603-D	40000 MHz
General Mobile Radio Services (FCC Licensed Radio Service Equipment) Parts 22 (non-cellular), 90 (non-microwave), 95, 97, and 101 (non-microwave)	ANSI/TIA-603-D	40000 MHz
Broadcast Radio Services Parts 73 and 74 (non-microwave)	ANSI/TIA-603-D	40000 MHz

¹Accreditation does not imply acceptance to the FCC equipment authorization program. Please see the FCC website (<https://apps.fcc.gov/oetcf/eas/>) for a listing of FCC approved laboratories.






Accredited Laboratory

A2LA has accredited

SHENZHEN CTL TESTING TECHNOLOGY CO., LTD.

Shenzhen, People's Republic of 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 27th day of November 2017.

President and CEO
For the Accreditation Council
Certificate Number 4343.01
Valid to February 29, 2020



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



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