



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

PCTEST ENGINEERING LABORATORY, INC.

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Columbia, MD 21045

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ELECTRICAL

Valid To: May 31, 2012

Certificate Number: 2041.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following Electromagnetic Compatibility, SAR, HAC, Telecommunications, OTA, Battery, and Wireless testing of LTE, WCDMA, GSM, CDMA and AMPS wireless devices.

**Test Technology**

*Wireless*

**Test Method(s)**

CDMA

3GPP2 C.S0011-C 20-Feb-2006 (TIA-98D/E/F)  
(excluding Sections 3.2.1.3, 3.2.3.2, 3.3.3, 3.3.4, 3.3.5, 3.3.6,  
3.4.6, 3.4.8, 3.4.10, 3.4.11, 3.4.12, 3.4.13, 3.7.2, 4.4.8, 4.4.9.2.1,  
4.4.10, 4.4.11);  
3GPP2 C.S0031-0 15-Oct-2001 (TIA-EIA-898) (excluding  
Sections 2.23, 3.3, 3.9.1, 6.12, 9.8, 10.1, receive, 11.15, 13.5);  
3GPP2 C.S0043-0 24-Sep-2004 (TIA-1035);  
3GPP2 C.S0036-0 11-Mar-2002 (TIA-916);  
3GPP2 C.S0037-0 19-Apr-2002 (TIA-918);  
3GPP2 C.S0056-0 22-Jul-2005 (TIA-1042);  
3GPP2 C.S0059-0 20-Aug-2008 (TIA-1038);  
3GPP2 C.S0060-0 06-Dec-2005 (TIA-1044);  
3GPP2 C.S0061-0 22-Jun-2005 (TIA-1045);  
3GPP2 C.S0062-0 14-May-2007 (TIA-1046);  
3GPP2 C.S0073-0 26-Sep-2005 (TIA-1084);  
3GPP2 C.S0073-B 21-Aug-2009 (TIA n/a);  
3GPP2 C.S0094-0 30-Oct-2008 (TIA-1157);  
CTIA Certification Program Test Plan for CDMA Mobile  
Stations;  
CCF Certification Test Plan – Laboratory;  
C.S0059; C.S0094;  
VZW Wireless Priority Services (WPS);  
VZW Safe for Network (SFN);  
VZW Open Development (OD) Device Specifications;  
VZW Location Based Services (LBS)

**Test Technology**  
*Wireless (continued)*

**Test Method(s)**

EVDO	3GPP2 C.S0033-0 12-Dec-2003 (TIA-866); 3GPP2 C.S0033-A 14-Dec-2005 (TIA-866); 3GPP2 C.S0038-0 19-Apr-2002 (TIA-919); 3GPP2 C.S0038-A 26-Sep-2005 (TIA-919); 3GPP2 C.S0038-B 30-Mar-2009 (TIA n/a); 3GPP2 C.S0037-0 19-Apr-2002 (TIA-918); CTIA Certification Program Test Plan for CDMA Mobile Stations; CCF Certification Test Plan – Laboratory
LTE	3GPP Release 8 and Release 9; 3GPP TS 36.521-1; 3GPP TS 36.521-3; 3GPP TS 36.523-1; PTCRB NAPRD.03; PTCRB PPMD; Global Certification Forum (GCF-CC) Certification / LTE Field Test (TS.11); VZW Safe for Network (SFN), VZW Phase 1, VZW Open Development and Field Interoperability Testing (FIT); Sprint LTE Test Plan; Sprint LTE Safe for Network (SFN); Sprint LTE Conformance; Sprint LTE IOT
AMPS	TIA/EIA-553; TIA-690; CTIA Certification Program Test Plan for AMPS Mobile Stations; CTIA Certification Program Mobile Station Authentication Test Plan
OTA	CTIA Test Plan for Mobile Station OTA Performance Test Plan Version 3.1 for CDMA, GSM, GPRS, EGPRS, UMTS (W-CDMA), CDMA 1xEVDO Data; CDMA aGPS, GSM ULTS, (WCDMA) ULTS; VZW aGPS; SPRINT aGPS; VZW E-UTRA LTE OTA; SPRINT E-UTRA (LTE) OTA
TTY	ANSI-136, IS-95 Generic Inter-vendor TTY Test Plan Ver. 1.2
Hearing Aid Compatibility	ANSI C63.19; CTIA Test Plan for Hearing Aid Compatibility
SAR (Specific Absorption Rate)	IEEE 1528; RSS-102; EN 50360; EN 50361; EN 62209-1; IEC 62209-1; IEC 62209-2; FCC OET Bulletin 65 (including Supplement C); Australian Communications Authority Radio Communications (Electromagnetic Radiation – Human Exposure) Standard 2003
Transmitter/Receiver	
Output Power	RSS 111; RSS 112; RSS 117; RSS 118; RSS 119; RSS 123;
Conducted Spurious Emissions	RSS 125; RSS 127; RSS 129; RSS 131; RSS 132; RSS 133;
Radiated Spurious Emissions	RSS 134; RSS 135; RSS 136; RSS 137; RSS 138; RSS 139;
Occupied Bandwidth	RSS 141; RSS 142; RSS 170; RSS 181; RSS 182; RSS 188;
Frequency Stability	RSS 191; RSS 192; RSS 193; RSS 194; RSS 195; RSS 196;
ERP/EIRP	RSS 197; RSS 199; RSS 210; RSS 213; RSS 215; RSS220;
Audio Freq Response	RSS 243; RSS 287; RSS 310; RSS Gen
LP Filter Freq Response	
Modulation Limiting	

**Test Technology**  
*Wireless (continued)*

Battery Safety

Altitude Simulation  
Temperature Cycling  
Mechanical Shock  
Vibration  
Short Circuit  
Overcharge  
Impact  
Forced Discharge

**Test Method(s)**

IEEE 1725 Standard for Rechargeable Batteries for Cellular Telephones;  
CTIA Certification Requirements for Battery System Compliance to IEEE 1725;  
IEEE 1625 Standard for Rechargeable Batteries for Multi-Cell Mobile Computing Devices;  
CTIA Certification Requirements for Battery System Compliance to IEEE 1625;  
United Nations Document ST/SG/AC.10/11/Rev.4, Recommendations on the Transport of Dangerous Goods; Manual of Tests and Criteria; Fourth Revised Edition;  
IEC 62281 – Safety of Primary and Secondary Lithium Cells and Batteries During Transport

**Test Technology**  
**US TCB Requirements (FCC)**

Scope A1

Radiated Emissions  
Conducted Emissions  
47 CFR (FCC)

ANSI C63.4 (2003), FCC-MP5  
ANSI C63.4 (2003)  
FCC Rules parts 11, 15, 18

Scope A2

Radiated Emissions  
Conducted Emissions  
47 CFR (FCC)

ANSI C63.4 (2003)  
ANSI C63.4 (2003); KDB Publication No. 200443  
FCC Rules part 15

Scope A3

Radiated Emissions  
Conducted Emissions  
47 CFR (FCC)

ANSI C63.17 (1998), ANSI C63.17  
ANSI C63.4 (2003)  
FCC Rules part 15

Scope A4

Radiated Emissions  
Conducted Emissions

ANSI C63.4 (2003)  
ANSI C63.4 (2003); FCC Public Notice: DA 00-75 (2000); DA 02-2138 (2002); KDB Publication No. 558074 (2005), Section 15.247;  
47 CFR (FCC) FCC Rules part 15

Scope B1

Transmitter EMC Compliance Testing  
47 CFR (FCC)

ANSI/TIA/EIA-603-C (2004)  
FCC Rules part 2, 22, 24, 25 and 27

Scope B2

Transmitter EMC Compliance Testing  
47 CFR (FCC)

ANSI/TIA/EIA-603-C (2004)  
FCC Rules part 2, 22, 74, 90, 95 and 97

Scope B3

Transmitter EMC Compliance Testing  
47 CFR (FCC)

ANSI/TIA/EIA-603-C (2004)  
FCC Rules part 2, 80 and 87

Scope B4

Transmitter EMC Compliance Testing  
47 CFR (FCC)

ANSI/TIA/EIA-603-C (2004)  
FCC Rules part 2, 27, 74 and 101



**Test Technology:**

**Test Method(s)**

Scope C

Telecommunication

FCC Rules part 68; TIA-968-A (2003); TIA-968-A-1 (2003); TIA 968-A-2 (2004); T1.TRQ.6 (2002); TIA/EIA TSB-31B (1998); TIA 968-A-3 (2005); TIA 968-A-4 (2007); TIA 968-A-5 (2007); Industry Canada CS03 (Parts I and V)

Altitude Simulation  
Temperature Cycling  
Mechanical Shock  
Vibration  
Short Circuit  
Overcharge  
Impact  
Forced Discharge

United Nations Document ST/SG/AC.10/11/Rev.4,  
Recommendations on the Transport of Dangerous Goods; Manual of Tests and Criteria; Fourth Revised Edition

IEC 62281 – Safety of Primary and Secondary Lithium Cells and Batteries During Transport

**Industry Canada Requirements (IC)**

Radio Scope 1  
Radio Scope 2  
Radio Scope 3  
Radio Scope 4  
Radio Scope 5

License-Exempt Radio Frequency Devices;  
Licensed Personal Mobile Radio Services;  
Licensed General Mobile & Fixed Radio Services;  
Licensed Maritime & Aviation Radio Services;  
Licensed Fixed Microwave Radio Services





The American Association for Laboratory Accreditation

World Class Accreditation

# Accredited Laboratory

A2LA has accredited

## PCTEST ENGINEERING LABORATORY, INC.

*Columbia, MD*

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 28th day of September 2010.



  
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Peter Abney

President & CEO  
For the Accreditation Council  
Certificate Number 2041.01  
Valid to May 31, 2012  
Revised October 21, 2011

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