



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

7LAYERS, INC.  
15 Musick  
Irvine, CA 92618  
Mr. Fernando Rodriguez Phone: 949-716-6512

ELECTRICAL

Valid to: July 31, 2019

Certificate Number: 3699.01

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory to perform the following tests on Bluetooth and Wireless devices:

**Test Technology:**

Mobile Communications  
*(up to 18 GHz -  
Radiated emissions)*

**Test Method(s):**

3GPP TS 31.121; 3GPP TS 31.122;  
3GPP TS 31.124; 3GPP TS 34.108;  
3GPP TS 34.109; 3GPP TS 34.121-1;  
3GPP TS 34.121-2; 3GPP TS 34.123-1;  
3GPP TS 34.123-2; 3GPP TS 34.123-3;  
3GPP TS 34.124 (*sec 8.2 only*); 3GPP TS 34.171;  
3GPP TS 34.229-1; 3GPP TS 34.229-2;  
3GPP TS 34.229-3; 3GPP TS 51.010-1;  
3GPP TS 36.123 (*sec 8.2 only*); 3GPP TS 36.508;  
3GPP TS 36.509; 3GPP TS 36.521-1;  
3GPP TS 36.521-2; 3GPP TS 36.521-3;  
3GPP TS 36.523-1; 3GPP TS 36.523-2;  
3GPP TS 36.523-3; 3GPP TS 37.571-1;  
3GPP TS 37.571-2; 3GPP TR 37.901  
3GPP TS 51.010-2; 3GPP TS 51.010-4;  
3GPP TS 51.010-5;  
EN 301 419-1; EN 301 419-2; EN 301 419-3;  
EN 301 419-7; EN 301 420; EN 301 511;  
EN 301 908-1; EN 301 908-2; EN 301 908-13;  
ETSI TS 102 230; GCF-CC;  
PTCRB Bearer-Agnostic TTY Test Specification;  
PTCRB PPMD; PTCRB NAPRD.03;  
PTCRB PVG.03;  
Sprint LTE Test Plans;  
MetroPCS LTE Test Plans;  
Verizon Wireless Test Specifications:  
LTE 3GPP Band 13 RF and RRM Conformance Test Plan  
LTE 3GPP Band 13 Supplementary RF Conformance Test Plan  
LTE 3GPP Band 13 Signaling Conformance Test Plan  
LTE Supplementary Signaling Conformance Test Plan  
LTE Data Retry Test Plan  
LTE Device – UICC (USIM, ISIM) Interaction Test Plan  
LTE SMS Test Plan  
LTE 3GPP Band 13 Data Throughput Test Plan

**Test Technology:**

**Test Method(s):**

Mobile Communications  
(cont)

Verizon Wireless Test Specifications (cont):  
LTE AT commands for Test Automation Test Plan  
LTE 3GPP Band 13 Supplementary RRM Conformance Test Plan  
LTE IMS Registration and Retry Test Plan  
LTE 3GPP Band 4 Supplementary RF Conformance Test Plan  
LTE Device-UICC (USIM, ISIM) Interaction for Band 4 Test Plan  
LTE 3GPP Band 4 Data Throughput Test Plan  
LTE Interband Test Plan  
LTE 3GPP Band 2 Supplementary RF Conformance Test Plan  
LTE 3GPP Band 5 Supplementary RF Conformance Test Plan  
LTE 3GPP Carrier Aggregation Supplementary RF Conformance Test Plan  
LTE Test Plan RichCommServices  
IMS VoIP Test Plan  
E911 for LTE Only or LTE Multi-Mode VoLTE Capable Devices hVoLTE Devices Test Plan  
LTE Multi-Band Supplementary Signaling Conformance Test Plan  
LTE PCO Test Plan  
eMBMS Lab Conformance Test Plan  
LTE-CDMA InterRAT Performance Test Plan  
LTE Multi-Band Data Throughput Test Plan  
LTE 3GPP Band 4 and Band 66 Supplementary RF Conformance SIB8 1XRTT CHANNEL BROADCAST Test Plan  
Voice over Wifi Test Plan  
USCC LTE Data Throughput Test Plan

Field Trial <sup>1</sup>

GSMA TS.11; GSMA TS.40;  
OMA-ETS-XMHTML\_MP\_CON  
(Conformance for HXTML Mobile Profile);  
OMA-ETS-MMS-INT (Interoperability for MMS);  
OMA-ETS-WCSS;  
Verizon Wireless Test Specifications:  
VoLTE Field Test Plan  
LTE OTADM Test Plan  
Field Testing - Band 13 Test Plan  
Class 3 APN Management - Open Development 4G Device Test Cases

Application Enabler

OMA-ETS (in accordance with NAPRD.03 and GCF-CC);  
IMTC Enabler Test Specifications (in accordance with NAPRD.03 and GCF-CC);  
GSM Association Enabler Test Specifications (in accordance with NAPRD.03 and GCF-CC);  
JAVA Test Specifications

OTA (Over The Air)

CTIA OTA Performance (for Mobile Stations);  
CTIA Converged Devices (for RF Performance Evaluation of Wi-Fi Mobile Converged Devices);  
3GPP TS 34.114 (for OTA Antenna Performance)  
Verizon Wireless Test Specifications:  
LTE Over the Air Radiated Performance Test Plan  
Over-The-Air Radiated Performance for CDMA and LTE Multi-Mode Devices Test Plan  
US Cellular Test Specifications:  
LTE over the Air Radiated Test Plan  
USCC M2M OTA Test Plan



**Test Technology:**

**Test Method(s):**

Bluetooth

Bluetooth Radio and Protocol Conformance Testing:  
RF:1;  
RF-PHY1 (including 20 dBm LE, Core Specification Addendum 5);  
RF-PHY2;  
BR/EDR Protocols:1 (*excluding BB, LM and HCI*)  
LE Protocols:1 (including GAP, SM, L2CAP, GATT, ATT, HCI);  
LE Protocols:2  
Traditional Profile:1

V2X

Conformance test specifications for Wireless Access in Vehicular Environments (WAVE) – Security Services;  
Conformance test specifications for Wireless Access in Vehicular Environments (WAVE) – Networking Services

LoRa

LoRa End Device Certification EU;  
LoRa End-Device Certification Requirements for US and Canada

InternetOfThings (IoT)

Thread V1.1 Certification Test Plan

<sup>1</sup> *This laboratory meets A2LA R104 – General Requirements: Accreditation of Field Testing and Field Calibration Laboratories for these tests*



## Accredited Laboratory

A2LA has accredited

**7LAYERS, INC.**

*Irvine, CA*

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 31<sup>st</sup> day of August 2017

A handwritten signature in black ink, appearing to read "L. Sen", written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 3699.01  
Valid to July 31, 2019

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