



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2005

MET LABORATORIES, INC<sup>1</sup>  
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ELECTRICAL

Valid to: January 31, 2019

Certificate Number: 0591.02

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<sup>®</sup> Accreditation Program<sup>2</sup> requirements), accreditation is granted to this laboratory at the location listed above, *as well as the satellite laboratory location listed below*, to perform the following EMC, Telecom, Environmental Simulation, and Safety tests:

**Test Technology**

**Test Method(s)<sup>3</sup>**

Radiated and Conducted Emissions

47 CFR FCC Part 15B (using ANSI C63.4:2014);  
47 CFR FCC Part 18 (using MP-5:1986);  
Industry Canada ICES-001, 003;  
EN 55032; CISPR 32; KN 32;  
EN 55025; EN 55022; CISPR 22;  
AS/NZS/CISPR 11; AS/NZS/CISPR 22; AS/NZS/CISPR 32;  
KN 22; RRL 2006-84; RRL 2005-128; RRL 2005-96;  
CISPR 11; EN 55011; KN 11;  
EN 55014-1 (*excluding measurements of clicks*); KN 14-1;  
VCCI V-3 (*up to 6 GHz*); VCCI CISPR 32;  
ASMI CNS 13763-1; AS/NZS 1044 (Appliances);  
IMDA TS EMC; CNS 13438 (*up to 6 GHz*);  
TCVN 7189 (2009)

Harmonics and Flicker

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

Immunity

EN/IEC 61000-4-2; KN 61000-4-2;  
EN/IEC 61000-4-3; KN 61000-4-3;  
EN/IEC 61000-4-4; KN 61000-4-4;  
EN/IEC 61000-4-5; KN 61000-4-5;  
EN/IEC 61000-4-6; KN 61000-4-6;  
EN/IEC 61000-4-8; KN 61000-4-8;  
EN/IEC 61000-4-11; KN 61000-4-11

**Test Technology**

**Test Method(s)<sup>3</sup>**

Family Product or Industry Specific Specifications

EN/IEC 61000-6-1; EN/IEC 61000-6-2;  
EN/IEC 61000-6-3; EN/IEC 61000-6-4;  
EN 60669-2-1; IEC 60669-2-1;  
IEEE/ANSI C62.41; IEEE/ANSI C37.90.1;  
IEEE/ANSI C37.90.2; ANSI C12.16; IEEE 1613;  
ETSI 300 132-2; ETSI EN 300 123 3-1; ETSI EN 300 386;  
Telcordia GR-1089; NTT TR#176002 ;  
EN/IEC 60255-26; EN/IEC 60601-1-2; KN 60601-1-2;  
EN 60601-2-2, -3, -18, -20, -21, -22, -24, -25, -26,  
-27, -30, -32, -34, -35, -38, -39, -40, -41, -46;  
EN/IEC 61326-1; EN/IEC 61326-2-1 to -5; EN/IEC 61850-3;  
EN 50065-1; EN 50065-2-1 to -3;  
EN 55015; EN 61547; EN 55103-1 to -3;  
EN 50091-2; EN 50130-1;  
EN 60945; EN 61131-2; EN 55024;  
CISPR 24; CISPR 14;  
KN 24; KN 35; KN 61000-6-1 to 4; KN 61547; KN 60945;  
KN 11; KN 13; KN 15; KN 19; KN 20;  
KN 41; KN 50; KN 51; KN 60;  
RTCA/DO-160G; ISO 7176-21;  
MIL-STD-461D using MIL-STD 462D;  
MIL-STD-461E/F/G;  
DOD-STD 1399 Section 070 Part 1 1979;  
MIL-STD 1399 Sections 300A and 300B;  
CEI IEC 62052-11 Section 7.5;  
EN/IEC 61547; EN/IEC 50103-4; EN/IEC 50270;  
EN/IEC 50121-4; EN/IEC 55103-1; EN/IEC 55103-2;  
EN/IEC/UL/CSA 62368-1; IEC 62236-4;  
ETSI ES 201 468, v1.4.1 and v1.6.1

Automotive EMC

CISPR 12; CISPR 25; SAE J1455; ISO 11452-2;  
ISO 11452-4; ISO 13766; ISO 14982;  
SAE J1113-1, -4, -13, -21, -22, -42; SAE J551;  
ISO 7637-1, -2, -3, -4

Intentional and Unintentional Radiators:  
*(Using ANSI C63.4:2014;  
ANSI C63.10:2013; EIA/TIA-603-D;  
excluding HAC, unless otherwise noted)*

47 CFR FCC Parts 2, 11, 15B/C/D/E/F/G/H,  
18 (using MP-5:1986), 21, 22, 24, 25, 27, 74, 80,  
87, 90, 95, 97 and 101;  
RSS-111; RSS-112; RSS-117; RSS-119; RSS-123; RSS-125;  
RSS-127; RSS-130; RSS-131; RSS-132; RSS-133; RSS-134;  
RSS-135; RSS-137; RSS-139; RSS-141; RSS-142; RSS-170;  
RSS-181; RSS-182; RSS-191; RSS-192; RSS-194; RSS-195;  
RSS-196; RSS-197; RSS-199; RSS-210; RSS-213; RSS-215;  
RSS-220; RSS-236; RSS-238; RSS-243; RSS-244; RSS-247;  
RSS-287; RSS-288; RSS-310; RSS-GEN;

**Test Technology**

Intentional and Unintentional Radiators: (cont'd)  
(Using ANSI C63.4:2014; ANSI C63.10:2013; EIA/TIA-603-D; excluding HAC, unless otherwise noted)

**Test Method(s)<sup>3</sup>**

ETSI TS 134.124 (section 8.2, WCDMA/HSPA (bands I, II, IV, V, VI and VIII) spurious emissions only);  
3GPP TS 34.124 (section 8.2, WCDMA/HSPA (bands I, II, IV, V, VI and VIII) spurious emissions only);  
ETSI TS 151.010-1 (sections 12.2.1 and 12.2.2, GSM/GPRS/EDGE (bands 850, 900, 1800 and 1900) spurious emission only);  
3GPP TS 51.010-1 (sections 12.2.1 and 12.2.2, GSM/GPRS/EDGE (bands 850, 900, 1800 and 1900) spurious emission only);  
ETSI EN 300 127; ETSI EN 300 132-1; ETSI EN 300 220-1; ETSI EN 300 220-2; ETSI EN 300 220-3; ETSI EN 300 328; ETSI EN 300 330-1; ETSI EN 300 330-2; ETSI EN 300 339; ETSI EN 300 342-1; ETSI EN 300 342-2; ETSI EN 300 342-3; ETSI EN 300 385; ETSI EN 300 431; ETSI EN 300 440-1; ETSI EN 300 440-2; ETSI EN 300 487; ETSI EN 300 609-4; ETSI EN 300 630; ETSI EN 300 683; ETSI EN 300 826-1; ETSI EN 301 489 series 1-33; ETSI EN 301 502; ETSI EN 301 511 (sections 5.2.16 to 5.2.19, GSM/GPRS/EDGE (bands 850, 900, 1800 and 1900) spurious emissions only); ETSI 301 893; ETSI 301 908-1 (section 5.3.1, WCDMA/HSPA (bands I, II, IV, V, VI and VIII) and LTE (bands 1, 2, 3, 4, 5, 7, 8, 11, 12, 13, 14, 17, 18, 19, 20, 25 and 26) spurious emissions only); ETSI EN 301 1128; ETSI EN 301 1216; ETSI EN 301 1271; ETSI EN 301 2062; ETSI EN 302 208-1; ETSI EN 302 208-2; ISO 7637-2: 2004; Technical Requirements for the Radio Equipment for Other Services than Broadcasting, Maritime, Aeronautical and Telecommunications Service; RRL Notice No. 2006-84 Conformity Assessment Procedure for Type Official Approval and Type Registration of Radio Equipment RRL Notice No. 2005-128; RTTE01; IS2045-0; LP002; PLMN09; IS2034-1; KN 301 489-1, -2, -3, -5, -6, -7, -9, -13, -15, -17, -18, -20, -24, -26, -27, -32; HKCA 1001; HKCA 1002; HKCA 1003; HKCA 1004; HKCA 1005; HKCA 1006; HKCA 1007; HKCA 1008; HKCA 1010; HKCA 1015; HKCA 1016; HKCA 1019; HKCA 1020; HKCA 1022; HKCA 1026; HKCA 1027; HKCA 1030; HKCA 1034; HKCA 1035; HKCA 1036; HKCA 1037; HKCA 1039; HKCA 1041; HKCA 1042; HKCA 1043; HKCA 1044; HKCA 1045; HKCA 1046; HKCA 1047; HKCA 1048; HKCA 1049; HKCA 1050; HKCA 1052; HKCA 1053; HKCA 1054; HKCA 1056; HKCA 1061; HKCA 1063;

**Test Technology**

Intentional and Unintentional Radiators: *(cont'd)*  
*(Using ANSI C63.4:2014; ANSI C63.10:2013; EIA/TIA-603-D; excluding HAC, unless otherwise noted)*

SAR/RF Exposure  
*(SAR testing 2.4 and 5 GHz only)*

**Test Method(s)<sup>3</sup>**

IMDA TS SRD; IMDA TS LMR; IMDA TS AR;  
IMDA TS CT-CTS; IMDA TS WBA; IMDA TS RPG;  
IMDA TS UWB;  
Technical Requirements for Telecommunications Terminal Equipment (RRA Public Notification 2015-24);  
Conformity Assessment Procedure for Telecommunications Terminal Equipment (RRA Announce 2015-104);  
Standard Test Procedure on the Technical Requirements for Telecommunications Terminal Equipment (RRA Public Notification 2012-17);  
Regulations on Radio Equipment (MSIP Public Notification 2015-89);  
Unlicensed Radio Equipment Established Without Notice (MSIP Public Notification 2015-91);  
Technical Requirements for the Human Protection against Electromagnetic Waves (MSIP Public Notification 2015-18);  
Technical Requirements for Measurement and Test Procedure of Specific Absorption Rate (SAR) (RRA Public Notification 2015-23);  
Technical Requirements for Measurement of Electromagnetic Field Strength (RRA Public Notification 2014-2);  
Conformity Assessment Procedure of Radio Equipment (RRA Announce 2015-81);  
AZ/NZS 4268, 4295, 4281, 4355, 4365, 4768, 4770, 4771;  
ARIB STD-T96;  
B1: Specified Radio Equipment Specified in Article 38-2-2, Paragraph 1, Item 1 of the Radio Law;  
B2: Specified Radio Equipment Specified in Article 38-2-2, paragraph 1, Item 2 of the Radio Law;  
B3: Specified Radio Equipment Specified in Article 38-2-2, Paragraph 1, Item 3 of the Radio Law;  
ITU-TL.1200

FCC OET Bulletin 65:1997, Including Supplement C:2001;  
RSS 102 Industry Canada RF Exposure;  
EN 50360:2001; EN 50361 European Radio Communication Standard (Electromagnetic Radiation Human Exposure Standards) – Mobile Phones RF Exposure;  
AS/NZS 2772.1:1999 Australian RF Exposure Australian Radio Communication (Electromagnetic Radiation-Human Exposure) Standard;  
IEEE 1528:2003; IEEE 1528:2005;  
IEC 62209-1; IEC 62209-2



**Test Technology**

**Test Method(s)<sup>3</sup>**

**Radio/Wireless**

KS X 3123; Regulations on Radio Equipment (Enforcement Decree of MSIT NO. 1, Jul 26, 2017);  
Unlicensed Radio Equipment Established Without Notice (MSIT Public Notification 2017-10, Sep 1, 2017);  
Technical Requirements for the Human Protection against Electromagnetic Waves (MSIT Public Notification 2017-7, Aug 24, 2017);  
Technical Requirements for Measurement and Test Procedure of Specific Absorption Rate (RRA Public Notification 2017-8, Aug 28, 2017);  
Technical Requirements of the Other Service Radio Equipment for Simple radio station, Space station and Earth station (RRA Public Notification 2017-8, Aug 28, 2017);  
Technical Requirements for Measurement of Electromagnetic Field Strength (RRA Public Notification 2017-7, Aug 4, 2017);  
Equipment to be subject of Test Procedure for Electromagnetic Field Strength and Specific Absorption Rate (MSIT Public Notification 2017-7, Aug 24, 2017);  
KN 301 489-1; KN 301 489-2; KN 301 489-3; KN 301 489-4; KN 301 489-5; KN 301 489-6; KN 301 489-7; KN 301 489-8; KN 301 489-9; KN 301 489-10; KN 301 489-11; KN 301 489-12; KN 301 489-13; KN 301 489-14; KN 301 489-15; KN 301 489-16; KN 301 489-17; KN 301 489-18; KN 301 489-19; KN 301 489-20; KN 301 489-21; KN 301 489-22; KN 301 489-23; KN 301 489-24; KN 301 489-25; KN 301 489-26; KN 301 489-27; KN 301 489-28; KN 301 489-29; KN 301 489-30; KN 301 489-31; KN 301 489-32

**Telecommunication**

Analog:  
AC Impedance Analog  
Automatic Dialing and Redialing  
Billing Protection  
DC Resistance  
DC Characteristics DTMF Signaling  
Encoded Analog Content Labeling  
Requirements Leakage Current  
Lightning Surge  
Limitations on Automatic Redialing  
Longitudinal Balance  
Mechanical Shock  
Output Port Signal Coding Output  
Power  
Output Timing Physical  
Characteristics  
Ringer Equivalence Number Physical  
Characteristics Signal Power  
Signal Power

TIA-968-A-1, -2, -3; TIA/EIA TSB 31-B; TIA/TSB-168-A; TBR21; TIA-968-A-1, -2, -3, -4 and -5;  
Industry Canada CS-03, Part I, Issue 9, Amendment 4, December 2010



**Test Technology**

**Test Method(s)<sup>3</sup>**

**Telecommunication (cont'd)**

T1/DS1:	TIA-968-A-1, -2, -3, -4 and -5;
AC Impedance Bit Rates	TIA/EIA TSB 31-B;
Clock Accuracy DC Resistance	Industry Canada CS-03, Part II, Issue 9, Amendment 1,
DC Characteristics Encoded Analog	September 2012
Content Hazardous Voltage	
Insulation Resistance Labeling	
Requirements Leakage Current	
Lightning Surge	
Line Coding Line Connection Line	
Rate	
Longitudinal Balance Mechanical	
Shock Pulse Repetition	
Pulse Template, Pulse Shape	
Transverse Balance Waveform Shape	
AC Power Fault Tests	GR-1089; Verizon CPE (NEBS Requirements for Customer
Analog Voice Band Leads	Premises Equipment (CPE) Devices);
Bonding and Grounding	Verizon Technical Purchasing Requirements (TPR);
Corrosion	GR-1089
Current Drains	
Current Limiting Protector Tests	
DC Potential Difference	
Electrical Fast Transients	
Electrical Safety (GR-1089-CORE)	
Lightning Surge	
Listing Requirements	
Minimum Operating Voltage	
Noise Immunity	
Over and Under Voltage Transients	
Short Circuit Tests	
Steady State Input DC Voltage	
Steady State Power Induction	
Battery Noise	ATT-TP-76200 (DC Power);
Current Drains	ANSI-T1-315;
Distribution Voltage Drops	ATIS 00600315; ATIS 00600315.01;
Electrical Fast Transients	GR-1089
Lightning Surge	
Low Input Voltage Recovery	
Low Input Voltage Shutdown	
Minimum Operating Voltage	
Noise Immunity	
Over and Under Voltage Transients	



**Test Technology**

**Test Method(s)<sup>3</sup>**

**Telecommunication (cont'd)**

xDSL:

Average Signal Power Bandpass

DC Resistance

DC Characteristics Extraneous AC

Energy Insulation Resistance

Labeling Requirements Insulation

Resistance Line Coding

Leakage Current Lightning Surge

Longitudinal Balance

Longitudinal Output Voltage

Mechanical Shock

Output Power

Power Spectral Density Physical

Characteristics Ringer Equivalence

Number Physical Characteristics

Signal Power

Transmitted Digital Signal Power

Transmitted Voltages Transmitter

Spectral Response Transverse

Balance

Waveform Shape Wander Generation

xDSL Interoperability Return Loss

Ringer Equivalence Number

Industry Canada CS-03, Part VIII, Issue 9, Amendment 4,  
May 2009;

TIA-968-A-1, -2, -3, -4 and -5

Power Induction

Inherent/Coordination and Earth

Potential Rise

Single Port Lightning Inherent

Single Port Lightning

Coordination Single Port

Lightning

ITU-T K.20; ITU-T K.21; ITU-T K44; ITU-T K.45

**Test Technology**

**Test Method(s)<sup>3</sup>**

**ENERGY STAR<sup>2</sup>**

Large Network Equipment

ENERGY STAR Product Specification for Large Network Equipment (Version 1.0);  
ENERGY STAR Test Method for Large Network Equipment (December 2015)

Data Center Storage

ENERGY STAR Program Requirements Product Specification for Data Center Storage (Version 1.0);  
Test Method for Data Center Storage Equipment, (August 2013)

Enterprise Servers

ENERGY STAR Program Requirements Product Specification for Computer Servers (Version 2.1);  
ENERGY STAR Test Method for Computer Servers, (April 2016);  
Standard Performance Evaluation Corporation (SPEC) Server Efficiency Rating Tool (SERT) (Version 1.1.1)

*<sup>1</sup> This accreditation covers testing performed at the main laboratory listed above, and the satellite laboratory listed below:*



MET LABORATORIES, INC.<sup>1</sup>  
33439 Western Avenue  
Union City, CA 94587

**Test Technology**

**Test Method(s)<sup>3</sup>**

Radiated and Conducted Emissions	47 CFR FCC Part 15B (using ANSI C63.4:2014); 47 CFR FCC Part 18 (using MP-5:1986); Industry Canada ICES-001, 003; EN 55032; CISPR 32; KN 32; EN 55022; CISPR 22; AS/NZS/CISPR 11; AS/NZS/CISPR 22; AS/NZS/CISPR 32; KN 22; CISPR 11; EN 55011; KN 11; VCCI V-3 ( <i>up to 6 GHz</i> ); VCCI CISPR 32; ITU-TL.1200
Harmonics and Flicker	EN 61000-3-2; EN 61000-3-3
Immunity	EN/IEC 61000-4-2; KN 61000-4-2; EN/IEC 61000-4-3; KN 61000-4-3; EN/IEC 61000-4-4; KN 61000-4-4; EN/IEC 61000-4-5; KN 61000-4-5; EN/IEC 61000-4-6; KN 61000-4-6; EN/IEC 61000-4-8; KN 61000-4-8; EN/IEC 61000-4-11; KN 61000-4-11
Family Product or Industry Specific Specifications	EN 61000-6-1 to 4; IEEE/ANSI C62.41; IEEE/ANSI C37.90.1; IEEE/ANSI C37.90.2; IEEE 1613; EN/IEC 61850-3; ANSI C12.16; ETSI 300 132-2; ETSI EN 300 132 3-1 ; ETSI EN 300 386; DT 1TR9:2011; NTT TR#176002 ; Telcordia GR-1089; EN 61326-1; EN 61326-2-1 to -5; EN 50065-1; EN 50065-2-1 to -3; IEC/EN 60601-1-2; KN 61000-6-1 to 4; EN 60601-2-2, -3, -18, -20, -21, -22, -24, -25, -26, -27, -30, -32, -34, -35, -38, -39, -40, -41, -46; KN 60601-1-2; EN 55024; CISPR 24; KN 35; EN/IEC 61547; EN/IEC 50103-4; EN/IEC 50270; EN/IEC 50121-4; EN/IEC 55103-1; EN/IEC 55103-2

**Test Technology**

**Test Method(s)<sup>3</sup>**

**Telecommunication**

Analog:	TIA-968-A-1, -2, -3;
AC Impedance	TIA/EIA TSB 31-B;
Analog	TIA/TSB-168-A;
Automatic Dialing and Redialing	TBR21;
Billing Protection	TIA-968-A-1, -2, -3, -4 and -5;
DC Resistance	Industry Canada CS-03, Part I, Issue 9, Amendment 4, December 2010
DC Characteristics	
DTMF Signaling	
Encoded Analog Content	
Labeling Requirements	
Leakage Current	
Lightning Surge	
Limitations on Automatic Redialing	
Longitudinal Balance	
Mechanical Shock	
Output Port Signal Coding	
Output Power	
Output Timing	
Physical Characteristics	
Ringer Equivalence Number	
Physical Characteristics	
Signal Power	
Signaling Requirements	
T1/DS1:	TIA-968-A-1, -2, -3, -4 and -5;
AC Impedance	TIA/EIA TSB 31-B;
Bit Rates	Industry Canada CS-03, Part II, Issue 9, Amendment 1, September 2012
Clock Accuracy	
DC Resistance	
DC Characteristics	
Encoded Analog Content	
Hazardous Voltage	
Insulation Resistance	
Labeling Requirements	
Leakage Current	
Lightning Surge	
Line Coding	
Line Connection	
Line Rate	
Longitudinal Balance	
Mechanical Shock	
Pulse Repetition	
Pulse Template, Pulse Shape	
Transverse Balance	
Waveform Shape	

**Test Technology**

**Test Method(s)<sup>3</sup>**

**Telecommunication (cont'd)**

**Telecommunication (cont'd)**

AC Power Fault Tests  
Analog Voice Band Leads  
Bonding and Grounding  
Corrosion  
Current Drains  
Current Limiting Protector Tests  
DC Potential Difference  
Electrical Fast Transients  
Electrical Safety (GR-1089-CORE)  
Lightning Surge  
Listing Requirements  
Minimum Operating Voltage  
Noise Immunity  
Over and Under Voltage Transients  
Short Circuit Tests  
Steady State Input DC Voltage  
Steady State Power Induction

GR-3108;  
Verizon CPE (NEBS Requirements for Customer  
Premises Equipment (CPE) Devices);  
Verizon Technical Purchasing Requirements (TPR);  
GR-1089

Battery Noise  
Current Drains  
Distribution Voltage Drops  
Electrical Fast Transients  
Lightning Surge  
Low Input Voltage Recovery  
Low Input Voltage Shutdown  
Minimum Operating Voltage  
Noise Immunity  
Over and Under Voltage Transients

ATT-TP-76200 (DC Power);  
ANSI-T1-315;  
ATIS 00600315; ATIS 00600315.01;  
GR-1089

**Test Technology**

**Test Method(s)<sup>3</sup>**

**Telecommunication (cont'd)**

xDSL:

Average Signal Power  
Bandpass  
DC Resistance  
DC Characteristics  
Extraneous AC Energy  
Insulation Resistance  
Labeling Requirements  
Insulation Resistance  
Line Coding  
Leakage Current  
Lightning Surge  
Longitudinal Balance  
Longitudinal Output Voltage  
Mechanical Shock  
Output Power  
Power Spectral Density  
Physical Characteristics  
Ringer Equivalence Number  
Physical Characteristics  
Signal Power  
Transmitted Digital Signal Power  
Transmitted Voltages  
Transmitter Spectral Response  
Transverse Balance  
Waveform Shape  
Wander Generation  
xDSL Interoperability  
Return Loss  
Ringer Equivalence Number

Industry Canada CS-03, Part VIII, Issue 9, Amendment 4,  
May 2009;  
TIA-968-A-1, -2, -3, -4 and -5

Power Induction  
Inherent/Coordination  
and Earth Potential Rise  
Single Port Lightning Inherent  
Single Port Lightning Coordination  
Single Port Lightning

ITU-T K.20; ITU-T K.21; ITU-T K44; ITU-T K.45

**Environmental Simulation**

Capacitance

MIL-STD-202F/G, Method 305

Contact Bounce

MIL-STD-202F/G,  
Method 310 (measured with oscilloscope)

Contact Resistance

MIL-STD-202 F & G, Method 311

**Test Technology****Test Method(s)<sup>3</sup>****Environmental Simulation (cont'd)**

Dielectric Constant

ASTM D150

Dielectric Strength (withstand)

GR-49

Insulation Resistance

MIL-STD-202F/G, Method 302;  
MIL-STD-883F/G, Method 1003**Product Safety Tests<sup>4</sup>**

CSA C22.2 series of product safety standards including:  
No. 9, No. 12, No. 13, No. 14, No. 25, No. 30,  
No. 36, No. 46, No. 64, No. 66, No. 68, No. 71.1,  
No. 88, No. 89, No. 94, No. 107.1, No. 107.2,  
No. 113, No. 114, No. 117, No. 118, No. 120,  
No. 122, No. 125, No. 128, No. 142, No. 150,  
No. 151, No. 166, No. 173, No. 174, No. 191,  
No. 195, No. 205, No. 213, No. 221, No. 223,  
No. 224, No. 231, No. 236, No. 301, No. 601.1, No. 60335-3,  
No. 60601-1, No. 60601-2-2, No. 60601-2-7,  
No. 60601-2-18, No. 60601-2-22, No. 60601-2-37,  
No. 60065, No. 60950-1, No. 61010-1, No. 745-1,  
No. 60745-2-1, No. 60745-2-2 (*except hammer*),  
No. 60745-2-3, No. 60745-2-5, No. 60745-2-6,  
No. 60745-2-8, No. 60745-2-9, No. 60745-2-11,  
No. 60745-2-12, No. 60745-2-14, No. 60745-2-17,  
No. 60745-2-30, No. 60745-2-31, No. 60745-2-32,  
No. 60745-2-33, No. 60745-2-34, No. 60745-2-35,  
No. 60745-2-36, No. 60745-2-37, No. E60335-2-67,  
No. E60335-2-68, No. E60335-2-69,  
No. E60335-2-76, No. E60335-2-82;  
EN 60215; EN 60204-1;  
EN 60065-1<sup>4</sup> (*except as noted in table 2*);  
EN/IEC 60950-1<sup>4</sup> (*except as noted in table 1*);  
IEC 60950-22;  
EN 60335-1<sup>4</sup> (*except as noted in table 4*);  
EN 60335-2<sup>4</sup> (*except as noted in table 5*);  
EN 60601-1;  
EN/IEC 61010-1<sup>4</sup> (*except as noted in table 3*);  
IEC 60745-1 (and all part 2s);  
EN 60669-2-1; IEC 60669-2-1; EN/IEC/UL/CSA 62368-1;  
ULC 60839-11-1; 16 CFR 1505

**Test Technology**

**Test Method(s)<sup>3</sup>**

**ENERGY STAR<sup>2</sup>**

Large Network Equipment

ENERGY STAR Product Specification for Large Network Equipment (Version 1.0);  
ENERGY STAR Test Method for Large Network Equipment (December 2015)

Data Center Storage

ENERGY STAR Program Requirements Product Specification for Data Center Storage (Version 1.0);  
Test Method for Data Center Storage Equipment, (August 2013)

Enterprise Servers

ENERGY STAR Program Requirements Product Specification for Computer Servers (Version 2.1);  
ENERGY STAR Test Method for Computer Servers, (April 2016);  
Standard Performance Evaluation Corporation (SPEC) Server Efficiency Rating Tool (SERT) (Version 1.1.1)

<sup>2</sup> A2LA provides accreditation to the U.S. EPA's Conditions and Criteria for Recognition of Laboratories for the ENERGY STAR Program by verifying an organization's compliance to A2LA document R222 - Specific Requirements - EPA ENERGY STAR Accreditation Program and to the related test methods listed above.

Accreditation by A2LA does not infer Recognition by the EPA for ENERGY STAR testing. Please verify this organization's recognition status by using the EPA's searchable database, located at [http://www.energystar.gov/index.cfm?fuseaction=recognized\\_bodies\\_list.show\\_RCB\\_search\\_form](http://www.energystar.gov/index.cfm?fuseaction=recognized_bodies_list.show_RCB_search_form)

<sup>3</sup> The laboratory is only accredited for testing activities outlined within the test methods listed above. Reference to any other activity within these standards, such as risk management or risk assessment, does not fall within the laboratory's accredited capabilities.

<sup>4</sup>Exclusion Tables

Table #1: Clauses excluded from EN 60950-1

Standard	Clause	Test
60950-1		
	2.10.4	Comparative tracking index measurements
	2.10.5.4	Partial discharge test (on semiconductors)
	2.10.8.4	Abrasion resistance test
	3.2.5.1	Flexing test of AC power supply cords
	4.2.8	CRT tests
	4.3.12	Flammable liquid measurement
	4.3.13.2	Ionizing radiation
	4.3.13.3	Tests after UV exposure on material
	4.3.13.4	Human exposure to UV radiation
	4.3.13.5	Laser radiation
	4.6.2	Hot flaming oil
	Annex AA	Mandrel test

Table #2: Clauses excluded from EN 60065-1

Standard	Clause	Test
60065-1		
	6.1	Ionizing radiation
	6.2	Laser radiation
	7	Vicat softening
	8.18	Endurance test for wound components
	12.3	Barrel test for remote controls
	13.4	Comparative tracking index measurement
	14.1	Surge on resistors
	14.2	RC circuit tests
	16	Cord flexing
	18	CRT tests
	Annex H	Insulated winding wire

Table #3: Clauses excluded from EN 61010-1

Standard	Clause	Test
61010-1		
	6.7.1.2	CTI measurement
	10.5.3	Vicat softening
	12.2.1	Ionizing radiation
	12.5.2	Ultrasonic pressure
	12.6	Laser radiation
	13.3	High vacuum devices (CRT)

<sup>4</sup>Exclusion Tables (cont.)

Table #4: Clauses excluded from EN 60335-1

Standard	Clause	Test
60335-1		
	19	IEC 61000-4-13 Mains Signal Test
	22	Oxygen bomb (for rubber ageing) Methylated spirit and pressure (for testing ceramic insulation)
	24	Some Component testing. (SAF typically requires Safety critical components to have appropriate certification)
	Annex F	Capacitor testing
	Annex H	Endurance testing (special apparatus)
	Annex J	Coated PCB test
	Annex R	Software validation

Table #5: Clauses excluded from EN 60335-2

Standard	Clause	Test
60335-2-7	15	Aging for elastomeric parts
60335-2-34	6	Running overload test (for motors)
60335-2-36	30	Glow-wire test
60335-2-37	30	Glow-wire test
60335-2-38	30	Glow-wire test
60335-2-39	30	Glow-wire test
60335-2-40	22	Vacuum pressure
60335-2-42	30	Glow-wire test
60335-2-48	30	Glow-wire test
60335-2-54	21	Mechanical tests for current carrying hoses
60035-2-58	15/ Annex BB	Ageing for elastomeric parts
	Annex CC	Back siphonage
60335-2-69	21	Mechanical tests for current carrying hoses



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 <sup>5</sup> :		
Rule Subpart/Technology	Test Method	Maximum Frequency
Unintentional Radiators		
Part 15B	ANSI C63.4:2014	40 GHz
Industrial, Scientific, and Medical Equipment		
Part 18	FCC MP-5 (February 1986)	6 GHz
Intentional Radiators		
Part 15C	ANSI C63.10:2013	40 GHz
U-NIII without DFS Intentional Radiators		
Part 15E	ANSI C63.10:2013	40 GHz
UWB Intentional Radiators		
Part 15F	ANSI C63.10:2013	40 GHz
BPL Intentional Radiators		
Part 15G	ANSI C63.10:2013	40 GHz
White Space Device Intentional Radiators		
Part 15H	ANSI C63.10:2013	40 GHz

<sup>5</sup>Accreditation 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

**MET LABORATORIES, INC.**

*Santa Clara, 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 laboratory also meets A2LA R222 - *Specific Requirements - EPA ENERGY STAR Accreditation Program*. 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 1<sup>st</sup> day of June 2017.

A handwritten signature in black ink, written over a horizontal line.

President and CEO  
For the Accreditation Council  
Certificate Number 0591.02  
Valid to January 31, 2019

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