



SCOPE OF ACCREDITATION TO ISO/IEC 17025:2017

AUSTEST LABORATORIES
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ELECTRICAL

Valid To: November 30, 2025

Certificate Number: 2765.02

In recognition of the successful completion of the A2LA evaluation process, accreditation is granted to this laboratory at the location listed above, *as well as the satellite laboratory location listed below*, to perform the following Product Safety, EMC, and Telecommunication tests:

Test:

Test Method(s) ¹:

Product Safety

AS/NZS 62368.1;
IEC/EN 62368-1 Audio/Video, information and communication technology equipment – Part 1: Safety requirements;
AS/NZS 60950.1; IEC/EN 60950-1; IEC 62040-1;
AS/NZS 3100; AS/NZS 3105; AS NZS 3112; AS/NZS 3122;
AS/NZS 3133; AS/NZS 3136;
AS/NZS 60884.1 Plugs and Socket-outlets for Household and Similar Purposes, Part 1: General Requirements (*Appendix ZZ only*);
AS/NZS 3120 Cord Extension Sockets;
AS/NZS 3140 (only clauses 8, 10, 14.2, 14.3, 14.4, & 15 to E27 Lampholder);
AS/NZS 3197;
EN 50155
- Supply Overvoltage
- Surges, ESD and Transient Burst Susceptibility
- Radio Interference
- Insulation;
- Visual Inspection
- Performance Test
- Power Supply Test
- Visual Inspection
- Performance Test
- Power Supply Test
AS/NZS 60065; IEC 60065; EN 60065;
AS/NZS 60320-1 (*excluding 'Hot' and 'Very Hot' conditions*);
IEC 60320-2-2 Appliance Couplers for Household and Similar General Purposes – Interconnection Couplers for Household and Similar Equipment (*Australian/New Zealand National Variations only*);
AS/NZS 60598.1, IEC 60598-1, EN 60598-1, and Associated
Part 2 Series of the Standards for the Following Luminaires Type:
Part 2.1 Fixed General-Purpose Luminaires
Part 2.2 Recessed Luminaires
Part 2.3 Luminaires for Road and Street Lighting
Part 2.4 Portable General-Purpose Luminaires
Part 2.5 Floodlights
Part 2.6 Luminaires with Built-In Transformers or Convertors for Filament Lamps

Test:

*Product Safety
(Cont.)*

Test Method(s) ¹:

Part 2.8 Handlamps
Part 2.10 Portable Child-Appealing Luminaires
Part 2.17 Luminaires for Stage Lighting, Television, Film, and
Photographic Studios (Outdoor and Indoor)
Part 2.20 Lighting Chains
Part 2.22 Luminaires for Emergency Lighting (*excluding clause
22.16, Functional Safety*);
AS/NZS 61010.1, IEC 61010-1, EN 61010-1,
Part 031 Hand-Held Probe Assemblies for Electrical
Measurement and Test;
IEC 61010-2-201 Particular Requirements for Control Equipment;
AS/NZS 61558.1, IEC 61558-1, EN 61558-1,
and Associated Part 2 Series of the Standards for the Following
Transformer Types:
Part 2.1 Separating Transformers and Power Supplies Incorporating
Separating Transformers for General Applications
Part 2.4 Isolating Transformers and Power Supply Units Incorporating
Isolating Transformers
Part 2.6 Safety Isolating Transformers and Power Supply Units
Incorporating Safety Isolating Transformers
Part 2.7 Transformers and Power Supplies for Toys
Part 2.16 Switch Mode Power Supply Units and Transformers for Switch
Mode Power Supply Units;
EN 60335-1, 4th Edition; AS/NZS 60335-1;
IEC 60335-1, 4th Edition;
IEC 60335-1, 5th Edition (*excluding clauses 22.16, cord reel test,
and 22.32, oxygen bomb test*);
AS 60335.1; EN 60335-1;
IEC 60335-1 (*excluding clauses 22.16, cord reel test, and 22.32, oxygen
bomb test*), and the Associated Part 2 Series of the Standards for the
Following Equipment Types:
Part 2.2 Vacuum Cleaners and Water-Suction Cleaning Appliances
(*excluding clause 21, Mechanical Strength*)
Part 2.3 Electric Irons
Part 2.4 Spin Extractors
(*Australian/New Zealand National Variations only*)
Part 2.5 Dishwasher
Part 2.6 Ranges, Ovens, and Hobs
Part 2.7 Washing Machine
Part 2.8 Shavers, Hair Clippers, and Similar Appliances
Part 2.9 Portable Cooking Appliances
Part 2.10 Floor Treatment Machines and Wet Scrubbing Machines
Part 2.11 Tumble Dryers
Part 2.12 Warming Plates and Similar Appliances
Part 2.13 Deep Fat Fryers, Frying Pans, and Similar Appliances
Part 2.14 Kitchen Machines
Part 2.15 Appliances for Heating Liquids
Part 2.16 Food Waste Disposers
(*Australian/New Zealand National Variations only*)
Part 2.17 Blankets, Pads, Clothing, and Similar Flexible Heating
Appliances (*Australian/New Zealand National Variations only*)
Part 2.21 Storage Water Heaters
Part 2.23 Appliances for Skin and Hair Care
Part 2.24 Refrigerators and Ice Makers
Part 2.25 Microwave Ovens including Combination Microwave Ovens
(*Annex ZZ and Clause 32 only*)

Test:

Product Safety
(Cont.)

Test Method(s) ¹:

- Part 2.26 Clocks (*Annex ZZ only*)
- Part 2.28 Sewing Machines
- Part 2.29 Battery Chargers
- Part 2.30 Room Heaters
- Part 2.31 Range Hoods (*excluding clause 30, Resistance of Heat and Fire [ISO 9772 Test Apparatus]*)
- Part 2.32 Massage Appliances
- Part 2.34 Motor-compressor (*Australian/New Zealand National Variations only*)
- Part 2.35 Instantaneous Water Heater
- Part 2.36 Commercial Electrical Cooking Ranges, Ovens, Hobs and Hob Elements
- Part 2.38 Commercial Electric Griddles and Griddle Grills
- Part 2.40 Electrical Heat Pumps, Air-conditioners, and Dehumidifiers
- Part 2.41 Pumps
- Part 2.43 Clothes Dryers and Towel Rails
- Part 2.45 Portable Heating Tools and Similar Appliances
- Part 2.47 Commercial Electric Boiling Pans
- Part 2.48 Commercial Electric Grillers and Toasters
- Part 2.49 Commercial Electric Appliances for Keeping Food and Crockery Warm
- Part 2.51 Stationary Circulation Pumps for Heating and Service Water Installations (*Australian/New Zealand National Variations only*)
- Part 2.52 Oral Hygiene Appliances
- Part 2.53 Sauna Heating Appliances and Infrared Cabins (*Australian/New Zealand National Variations only*)
- Part 2.54 Surface Cleaning Appliances (*excluding clauses 21.101 through 21.105, Current-Carrying Hoses*)
- Part 2.55 Aquariums and Garden Ponds
- Part 2.59 Insect Killers
- Part 2.60 Whirlpool Baths and Whirlpool Spas
- Part 2.61 Thermal-storage Room Heaters (*Annex ZZ only*)
- Part 2.64 Commercial Electric Kitchen Machines
- Part 2.65 Air-Cleaning Appliances
- Part 2.66 Water-bed Heaters (*Australian/New Zealand National Variations only*)
- Part 2.67 Floor Treatment Machines for Commercial Use (*Australian/New Zealand National Variations only*)
- Part 2.68 Spray Extraction Machines for Commercial Use (*Australian/New Zealand National Variations only*)
- Part 2.69 Wet and Dry Vacuum Cleaners, including Power Brush, for Commercial Use (*excluding clause 21, Mechanical Strength*)
- Part 2.70 Milking Machines (*Annex ZZ only*)
- Part 2.71 Electrical Heating Appliances for Breeding and Rearing Animal (*Annex ZZ only*)
- Part 2.72 Floor Treatment Machines with or without Traction Drive for Commercial Use (*Australian/New Zealand National Variations only*)
- Part 2.73 Fixed Immersion Heaters
- Part 2.74 Portable Immersion Heaters
- Part 2.75 Commercial Dispensing Appliances and Vending Machines (*excluding Annex AA, Aging Test for Elastomeric Parts*)
- Part 2.77 Pedestrian Controlled Mains-Operated Lawnmowers (*Annex ZZ only*)
- Part 2.78 Outdoor Barbecues

Test:

*Product Safety
(Cont.)*

Test Method(s) ¹:

Part 2.79 High Pressure Cleaners and Steam Cleaners
(*Australian/New Zealand National Variations only*)
Part 2.80 Fans
Part 2.81 Foot Warmers and Heating Mats
(*Australian/New Zealand National Variations only*)
Part 2.82 Amusement Machines
Part 2.83 Heated Gullies for Roof Drainage (*Annex ZZ only*)
Part 2.84 Toilets
Part 2.85 Fabric Steamers
Part 2.86 Electric Fishing Machines (*Annex ZZ only*)
Part 2.87 Electric Animal-stunning Equipment (*Annex ZZ only*)
Part 2.89 Commercial Refrigerating Appliances (*excluding clauses
22.106 through 22.109, Flammable Refrigerants*)
Part 2.90 Commercial Microwave Ovens (*Annex ZZ only*)
Part 2.91 Walk-Behind and Hand-Held Lawn Trimmers and Lawn
Edge Trimmers (*Annex ZZ only*)
Part 2.92 Pedestrian-Controlled Mains-Operated Lawn Scarifiers
and Aerators (*Annex ZZ only*)
Part 2.94 Scissors Type Glass Shears (*Annex ZZ only*)
Part 2.95 Drivers for Vertically Moving Garage Doors for
Residential Use
Part 2.96 Flexible Sheet Heating Elements for Room Heating
(*Annex ZZ only*)
Part 2.97 Drives for Rolling Shutters, Awnings, Blinds, and Similar
Equipment
Part 2.98 Humidifiers
Part 2.100 Hand-Held Mains-Operated Garden Blowers, Vacuums, and
Blower Vacuums (*Annex ZZ only*)
Part 2.101 Vaporizers
Part 2.102 Gas, Oil, and Solid-Fuel Burning Appliances Having
Electrical Connections
Part 2.103 Drives for Gates, Doors, and Windows
Part 2.105 Multifunctional Shower Cabinets (*Annex ZZ only*)
Part 2.106 Heated Carpets and for Heating Units for Room Heating
Installed under Removable Floor Coverings (*Annex ZZ only*)
Part 2.107 Robotic Battery Powered Electrical Lawnmowers
(*Australian/New Zealand National Variations only*)
Part 2.108 Electrolysers (*Annex ZZ only*)
Part 2.109 UV Radiation Water Treatment;
AS 1271: Clause 2.6: Hydrostatic Test;
IS EN ISO 4126-1, Clause 6.3: Hydrostatic Test;
IEC/EN 61347-1 (*except 18.2, PCB Resistance to Fire*);
AS/NZS 61347.1 and the Associated Part 2 Series of the Standards
for the Following Lamp Controlgear Types:
Part 2.3 A.C. Supplied Electronic Ballasts for Fluorescent Lamps
(*except Annex J, Emergency Lighting*)
Part 2.9 Ballasts for Discharge Lamps
Part 2.11 Misc. Electronic Circuits used with Luminaires
Part 2.13 D.C. or A.C. Supplied Electronic Control gear for
LED Modules;
AS/NZS 4703 Electrical Wiring in Furniture;
AS 4777.2:2015;
AS/NZS 4777.2 - Grid connection of Energy Systems via Inverters;
AS/NZS 4763 - Safety of Portable Inverters;

Test:

*Product Safety
(Cont.)*

Test Method(s) ¹:

IEC 61727 – Photovoltaic (PV) systems – Characteristics of the Utility Interface;
IEC 62109-1, EN 62109-1:
Safety of Power Converters for use in Photovoltaic Power Systems, Part 1 General Requirements;
IEC 62109-2, EN 62109-2:
Safety of Power Converters for use in Photovoltaic Power Systems, Part 2 Particular Requirements for Inverters;
AS/IEC 62619:
- Clause 4 Parameter measurement tolerances
- Clause 5 General safety considerations
- Clause 9 Information for safety
- Clause 10 Marking and designation;
IEC 62116 Utility-interconnected Photovoltaic Inverters – Test Procedure of Islanding Prevention Measures;
IEC 62477-1 Safety requirements for power electronic converter systems and equipment – Part 1: General;
IEC 60601-1: clauses 15.3.2, 15.3.3, and 15.3.6;
AS/NZS IEC 60601-1: clauses 15.3.2, 15.3.3, and 15.3.6;
BS EN 60601-1: clauses 15.3.2, 15.3.3, and 15.3.6;
AS/NZS 1158.6 (Luminaires):
- clause 5.2 PE Cell-type Luminaires
- clause 5.6 Ingress Protection Test
- clause 5.8 Impulse Voltage Test
- clause 5.10 Additional Tests (as required by AS/NZS 60598.1);
ST/AG/AC.10/11/Rev. 6:
- clause 38.3.4.2 Test T.2 Thermal Test
- clause 38.3.4.7 Test T.7 Overcharge;
AS/NZS 3820;
UN 38.3 (UN Manual Transport of Dangerous Goods):
- T.5 External Short Circuit Test
- T.7 Overcharge Test
- T.8 Forced Discharge Test;
Consumer Goods (Products Containing Button/Coin Batteries) Safety Standard;
Consumer Goods (Products Containing Button/Coin Batteries) Information Standard

Fire Hazard Testing

IEC 60112, EN 60112, AS/NZS 60112:
Proof and Comparative Tracking Indices of Solid Insulating Materials;
IEC 60695-11-5, EN 60695-11-5, AS/NZS 60695.11.5:
Needle Flame Test;
IEC 60695-10.2, EN 60695-10-2, AS/NZS 60695.10.2:
Ball Pressure Test;
IEC 60695-2.10, EN 60695-2-10, AS/NZS 60695.2.10:
Glow-wire Apparatus and Common Test Procedure;
IEC 60695-2-11, EN 60695-2-11, AS/NZS 60695.2.11:
Glow-wire Flammability Test Method for End-Products;
IEC 60695-2-12, EN 60695-2-12, AS/NZS 60695.2.12:
Glow-wire Flammability Test Method for Materials;
IEC 60695-2-13, EN 60695-2-13, AS/NZS 60695.2.13:
Glow-wire Ignitability Test Method for Materials

Test:**Test Method(s) ¹:**

Performance (MEPS)

AS/NZS 4665; AS/NZS 62087.1; AS/NZS 62087.2.1;
AS/NZS 62087.2.2; AS/NZS 62301; AS 5102.1; AS 5102.2

*Electromagnetic Fields
(EMF)*

EN 62233

*EMC – Emissions
Radiated and Conducted
(3m semi-anechoic
chamber)*

47 CFR, FCC Part 15B (using ANSI C63.4-2014) (*up to 40 GHz*);
47 CFR, FCC Part 18 (using MP 5:1986);
AS CISPR 11, CISPR 11, EN 55011
(*radiated 30MHz to 6GHz, conducted 150 kHz to 30MHz*);
AS/NZS CISPR 14; CISPR 14; EN 55014-1;
AS/NZS CISPR 15, CISPR 15, EN 55015
(*excluding radiated emissions below 30MHz*);
AS/NZS CISPR 22, CISPR 22, EN 55022
(*radiated 30MHz to 6GHz, conducted 150kHz to 30MHz*),
(*telecom ports 150 kHz to 30MHz*);
AS/NZS CISPR 32; CISPR 32; EN 55032; ICES-003;
IEC 61000-3-2; EN 61000-3-2; IEC 61000-3-3; EN 61000-3-3

EMC – Immunity

IEC 61000-4-2; EN 61000-4-2; AS/NZS 61000.4.2;
IEC 61000-4-3; EN 61000-4-3; AS/NZS 61000.4.3;
IEC 61000-4-4; EN 61000-4-4; AS/NZS 61000.4.4;
IEC 61000-4-5; EN 61000-4-5; AS/NZS 61000.4.5;
IEC 61000-4-6; EN 61000-4-6; AS/NZS 61000.4.6;
IEC 61000-4-8; EN 61000-4-8; AS/NZS 61000.4.8;
IEC 61000-4-9; EN 61000-4-9; AS/NZS 61000.4.9;
IEC 61000-4-11; EN 61000-4-11; AS/NZS 61000.4.11;
IEC 61000-4-13; EN 61000-4-13; AS/NZS 61000.4.13

*Generic/Product
Family/Industry Standards
(excluding SAR)*

IEC 61000-6-1; EN 61000-6-1; IEC 61000-6-2; EN 61000-6-2;
IEC 61000-6-3; EN 61000-6-3; IEC 61000-6-4; EN 61000-6-4;
IEC 61000-6-8; EN 61000-6-8;
IEC 60601-1-2 version 4.0, IEC 60601-1-2 version 4.1 (excluding IEC
61000-4-39); EN 60601-1-2;
IEC 60601-1-2 4.1 Edition (*excluding IEC 61000-4-39, EN 61000-4-39*);
CISPR 14-2; EN 55014-2; AS/NZS CISPR 14-2;
CISPR 35; CISPR 24; EN 55024; EN 61326-1; EN 50121-3-2; EN 50121-4;
EN 50130-4; EN 62233; EN 62311;
ETSI EN 301 489-1; ETSI EN 301 489-3; ETSI EN 301 489-7;
ETSI EN 301 489-17; ETSI EN 301 489-24;

*Radio
(Transmitter and Receiver)
(excluding SAR and HAC
testing, and DFS)*

47 CFR, FCC Part 15C (using ANSI C63.10-2013);
47 CFR, FCC Part 15E (using ANSI C63.10-2013);
RSS-GEN; RSS-210; RSS-247 (*without DFS*); RSS-248;
RSS-102 Measurement (RF Exp.); IEEE C95.3

*Stand-by Mode
(Clauses 19.11.4.1 to
19.11.4.7)*

IEC/EN 60335-1; AS/NZS 60335.1

Test:

Military EMC

Test Method(s) ¹:

MIL-STD-461/462B (*up to 18 GHz and 100 V/m*)
CE01, CE03, CS01, CS06, RE01, RE02, RS01, RS02, RS03;
MIL-STD-461/462C (*up to 18 GHz and 100 V/m*)
CE01, CE03, CS01, CS06, RE01, RE02, RS01, RS02, RS03;
MIL-STD-461E/F (*up to 18 GHz and 100 V/m*)
CE101, CE102, CE106, CS101, CS106, CS114, CS115, CS116,
RE101, RE102, RS101, RS103;
MIL-STD-461G (*up to 18 GHz and 100 V/m*)
CE101, CE102, CE106, CS101, CS114, CS115, CS116,
RE101, RE102, RS101, RS103

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<u>Test:</u>	<u>Test Method(s) ¹:</u>
<i>EMC – Emissions</i>	AS CISPR 11; CISPR 11; EN 55011; AS/NZS CISPR 12; CISPR 12; EN 55012; AS/NZS CISPR 14.1; CISPR 14-1; EN 55014-1; AS/NZS CISPR 15; CISPR 15; EN 55015; AS/NZS CISPR 22; CISPR 22; EN 55022; AS/NZS CISPR 32; CISPR 32; EN 55032; 47 CFR, FCC Part 15B (using ANSI C63.4:2014) (<i>up to 40 GHz</i>); 47 CFR, FCC Part 18 (using FCC MP-5:1986); ICES-003; IEC 61000-3-2; IEC 61000-3-3; EN 61000-3-2; EN 61000-3-3
<i>Generic/Product Family Standards</i>	IEC 61000-6-3; EN 61000-6-3; IEC 61000-6-4; EN 61000-6-4; IEC 61000-6-8; EN 61000-6-8
<i>Radio (Transmitter and Receiver) (excluding SAR and HAC testing, and DFS)</i>	47 CFR, FCC Part 15C (using ANSI C63.10-2013); 47 CFR, FCC Part 15E (using ANSI C63.10-2013); RSS-GEN; RSS-210; RSS-247 (<i>without DFS</i>); RSS-248; RSS-102 Measurement (RF Exp.); IEEE C95.3

¹ 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.

Testing Activities Performed in Support of FCC Certification in Accordance with 47 Code of Federal Regulations and FCC KDB 974614, Appendix A, Table A.1 ²:

Rule Subpart/Technology	Test Method	Maximum Frequency (MHz)
Unintentional Radiators Part 15B	ANSI C63.4:2014	40000
Industrial, Scientific, and Medical Equipment Part 18	FCC MP-5 (February 1986)	40000
Intentional Radiators Part 15C	ANSI C63.10:2013	40000
U-NII without DFS Intentional Radiators Part 15E	ANSI C63.10:2013	40000

² 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

AUSTEST LABORATORIES

Castle Hill, NSW, Australia

for technical competence in the field of

Electrical Testing

This laboratory is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017 *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 April 2017).



Presented this 16th day of May 2024.

A blue ink signature of Mr. Trace McInturff.

Mr. Trace McInturff, Vice President, Accreditation Services
For the Accreditation Council
Certificate Number 2765.02
Valid to November 30, 2025
Revised May 31, 2024

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