


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

 <p>1896</p> <p>Accredited to ISO/IEC 17025:2017</p>	<h3>Eurofins Electrical & Electronic UK Limited</h3>	
	<p>Issue No: 041</p>	<p>Issue date: 16 February 2024</p>
	<p>Caddsdwn Industrial Estate Clovelly Road Bideford Devon EX39 3DX</p>	<p>Contact: Becky Scott Tel: +44 (0)1237 423388 Fax: +44 (0)1237 423434 E-Mail: enquiryetc@eurofins.com Website: etcal.co.uk</p>
<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Eurofins Electrical & ElectronicUK Limited is accredited for a flexible scope that enables them to establish new and amended test methods, modification of existing methods and include newly revised or technically equivalent methods to conduct the activities detailed below, in accordance with their documented in-house procedure and UKAS Publication GEN 4.

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Computers and peripherals Electrical/Electronic components Electrical/Electronic products Telecommunications equipment IT equipment</p>	<p>1 CIVIL EMC Tests</p> <p>1.1 Conducted Emissions 9 kHz to 30 MHz</p>	<p>EN 55011:2009 EN 55011: 2009+A1:2010 EN 55011: 2016 EN 55011: 2016+A1: 2017 EN 55011: 2016+A11: 2020 EN 55011: 2016+A2: 2021</p> <p>EN 55014-1:2006 EN 55014-1:2006+A1:2009 EN 55014-1:2006+A2:2011 CISPR 14-1:2005 EN 55014-1: 2017</p> <p>EN 55022:2006 EN 55022: 2006+A1:2007 EN 55022:2006+A2:2010 EN 55022:2010</p> <p>CISPR 22:2005 CISPR 16-2-1:2003 CISPR 16-2-1:2003+A1:2005 CISPR 16-2-1:2008 CISPR 16-2-1:2008 Ed2+A1:2010 CISPR 16-2-1:2008 Ed2+A2:2013 CISPR 16-2-1: 2014-02 Edition 3.0 CISPR 16-2-1: 2014+A1:2017 EN 55032:2015 EN 55032: 2015+A11:2020 EN 55032: 2015+A1:2020</p>



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	1 CIVIL EMC Tests (cont'd) 1.2 Radiated Emissions Magnetic Field 10 kHz to 30 MHz	EN 60945:2002
	1.3 Radiated Emissions - Electric Field 30 MHz to 18 GHz	EN 55011:2009 EN 55011: 2009+A1:2010 EN 55011: 2016 EN 55011: 2016+A1: 2017 EN 55011: 2016+A11: 2020 EN 55011: 2016+A2: 2021 EN 55014-1:2006 EN 55014-1:2006+A1:2009 EN 55014-1:2006+A2:2011 CISPR 14-1:2005 EN 55014-1: 2017 EN 55022:2006 EN 55022:2006+A1:2007 EN 55022:2006+A2:2010 EN 55022:2010 CISPR 22:2005 CISPR 16-2-3:2006 CISPR 16-2-3:2010 Ed3 CISPR 16-2-3: 2014-03 Edition 3.0 CISPR 16-2-3: 2016-09 Edition 4.0 CISPR 16-2-3: 2016+A1: 2019 EN 55032:2015 EN 55032: 2015+A11: 2020 EN 55032: 2015+A1: 2020 (to 1 GHz only)
	1.4 Electrostatic Discharge Up to 30 kV	EN 61000-4-2:1995, A1 and A2 EN 61000-4-2:2009



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited

Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used												
As listed on Page 1	<p>1 CIVIL EMC Tests (cont'd)</p> <p>1.5 Radiated Immunity 80 MHz to 6 GHz up to 30 V/m:</p> <p>80 MHz to 1 GHz up to 20 V/m 1 GHz to 2 GHz up to 10 V/m 2 GHz to 6 GHz up to 5 V/m</p> <p>Levels include 80% modulation</p> <p>Spot frequencies from 80 MHz to 2.45 GHz up to 30 V/m CW and Pulse, and 10 V/m CW or Pulse @ 5.240, 5.500 and 5.785 GHz</p>	<p>IEC 1000-4-3:2002 EN 61000-4-3:2006 EN 61000-4-3:2006+A1:2008 EN 61000-4-3:2006+A2:2010 EN 61000-4-3: 2020</p>												
	<p>1.6 Radiated Susceptibility Alternative method Reverberation Chamber 80 MHz to 18 GHz Mode Tuning - Pulse and CW</p> <p>CW:</p> <table> <tr> <td>MHz</td> <td>V/m</td> </tr> <tr> <td>80-400</td> <td>200</td> </tr> <tr> <td>400 - 18000</td> <td>200</td> </tr> </table> <p>Pulse:</p> <table> <tr> <td>MHz</td> <td>V/m</td> </tr> <tr> <td>80-400</td> <td>200</td> </tr> <tr> <td>400 - 18000</td> <td>350</td> </tr> </table>	MHz	V/m	80-400	200	400 - 18000	200	MHz	V/m	80-400	200	400 - 18000	350	<p>EN 61000-4-21:2003 EN 61000-4-21:2011</p>
	MHz	V/m												
80-400	200													
400 - 18000	200													
MHz	V/m													
80-400	200													
400 - 18000	350													
<p>1.7 Fast Transient and Burst Immunity</p>	<p>IEC 801-4:1988 EN 61000-4-4:2004 EN 61000-4-4:2004+A1:2010 EN 61000-4-4:2012</p>													



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited

Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	1 CIVIL EMC Tests (cont'd)	
	1.8 Surge Immunity	EN 61000-4-5:2006 EN 61000-4-5: 2014 EN 61000-4-5: 2014+A1: 2017
	1.9 Conducted Radio Frequency Disturbance 150 kHz to 80 MHz	EN 61000-4-6:1996+A1:2001 +A2:2004 EN 61000-4-6:2007 EN 61000-4-6:2009 EN 61000-4-6:2014
	1.10 Power Frequency Magnetic Field Immunity	EN 61000-4-8:1994+A1 EN 61000-4-8: 2010
	1.11 Pulsed Magnetic Field Immunity	EN 61000-4-9:1993 EN 61000-4-9: 2016
	1.12 Mains Dips and Interruptions (5 seconds Maximum)	IEC 1000-4-11:1994 EN 61000-4-11:1994 EN 61000-4-11:2004 EN 61000-4-11: 2004 + A1: 2017 EN 61000-4-11: 2020
	1.13 Conducted Voltage Harmonics (Emissions) Up to 40th Harmonic	EN 61000-3-2:2006 EN 61000-3-2:2006+A2:2009 EN 61000-3-2: 2014 EN 61000-3-2: 2019 EN 61000-3-2: 2019+A1: 2021
	1.14 Conducted AC Mains Flicker/Emissions	EN 61000-3-3:2008 EN 61000-3-3:2013 EN 61000-3-3: 2013+A1: 2019 EN 61000-3-3: 2013+A2 :2021



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited

Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	<p>1 CIVIL EMC Tests (cont'd)</p> <p>1.15 EMC Tests</p> <p>These generic and product specific tests are included in this Schedule, but limited to those basic standards that are explicitly listed in Sections 1.1 to 1.14.</p>	<p>Generic and Product Standards</p> <p>EN 61000-6-1:2007 EN 61000-6-1: 2019 EN 61000-6-2:2005 EN 61000-6-2: 2019 EN 61000-6-3:2007+A1 2011 EN 61000-6-3: 2021 EN 61000-6-4:2007+ A1:2011 EN 61000-6-4: 2019 EN 61326-1:2013 EN 61326-1: 2021 EN 55014-2: 2015 EN 55024:2010 EN 55024: 2010 A1: 2015 EN 60945:2002 Sections 9 & 10 EN 60601-1-2: 2015 EN 60601-1-2: 2015 + A1: 2021 EN 55103-1:2009 EN 55103-2:2009 EN 50293:2012 EN 60947-4-2:2012 EN 50121-3-2:2006 EN 50121-3-2: 2015 EN 50121-3-2: 2016 EN 50121-3-2: 2016 A1: 2019 EN 50121-4:2006 EN 50121-4: 2016 EN 50121-4: 2016 A1: 2019 EN 50121-5:2006 EN 50121-5: 2015 EN 50121-5: 2017 EN 50121-5: 2017 A1: 2019 EN 55035: 2017 EN 55035: 2017 A11: 2020 ETSI EN 301 489-1 V2.2.3 2019-11</p>



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	<p>2 MILITARY EMC Tests</p> <p>2.1 Conducted Emissions: Power, Control and Signal Leads: 20 Hz to 150 MHz</p> <p>Antenna Terminals 10 kHz to 18 GHz</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G CE101, CE102 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DCE01, DCE02 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DCE01, DCE02 RTCA DO 160 G Section 21 AECTP-500 Ed 4 AECTP-500 Ed E NCE01, NCE02 NCE05 MIL STD 461E, F & G CE106</p>
	<p>2.2 Radiated Emissions: Electric Field: 10 kHz to 18 GHz</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G RE102, RE103 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DRE01 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DRE01 AECTP-500 Ed 4 AECTP-500 Ed E NRE02, NRE03 RTCA DO 160 G Section 21</p>



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited

Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	2 MILITARY EMC Tests (cont'd) 2.3 Radiated Emissions: Magnetic Field: 20 Hz to 250 kHz	MIL STD 461E MIL STD 461F MIL STD 461G RE101 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DRE02 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DRE02 AECTP-500 Ed 4 AECTP-500 Ed E NRE01
	2.4 Exported Transients Power Lines	DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DCE03 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DCE03 AECTP-500 Ed 4 AECTP-500 Ed E NCE04
	2.5 Radiated Susceptibility: Electric Field: 10 kHz to 18 GHz Stripline Method MHz V/m 0.01 to 200 200 (Pulsed, CW) Anechoic Method MHz V/m 30 to 18000 30 (Pulsed, CW) See also section 2.11 below Alternative method	MIL STD 461E MIL STD 461F MIL STD 461G RS103 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DRS02 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DRS02 AECTP-500 Ed 4 AECTP-500 Ed E NRS02 RTCA DO 160 G Section 20



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	<p>2 MILITARY EMC Tests (cont'd)</p> <p>2.6 Radiated Susceptibility: Magnetic Field: 0 Hz to 100 kHz Maximum Field Strength: 196 dBpT</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G RS101 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DRS01, DRS03 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DRS01, DRS03 AECTP-500 Ed 4 AECTP-500 Ed E NRS01</p>
	<p>2.7 Conducted Susceptibility: Power, Control and Signal Lines including Bulk Current Injection 20 Hz to 400 MHz</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G CS114 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DCS02 and DCS03 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DCS02, DCS03 AECTP-500 Ed 4 AECTP-500 Ed E NCS02, NCS07 RTCA DO 160 G Section 20</p>



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	<p>2 MILITARY EMC Tests (cont'd)</p> <p>2.8 Conducted Susceptibility: Primary Power Lines, 20 Hz - 150 kHz</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G CS101 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DCS01 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DCS01 AECTP-500 Ed 4 AECTP-500 Ed E NCS01</p>
	<p>2.9 Electrostatic Discharge Up to 30 kV contact</p>	<p>MIL STD 461G CS118 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DCS10 AECTP-500 Ed 4 AECTP-500 Ed E NCS12 RTCA DO 160 G Section 25</p>
	<p>2.10 Conducted Susceptibility: Structure Current, 60 Hz - 100 kHz</p>	<p>MIL STD 461E MIL STD 461F MIL STD 461G CS109 AECTP-500 Ed 4 AECTP-500 Ed E NCS06</p>



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 **Issue date:** 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	<p>2 MILITARY EMC Tests (cont'd)</p> <p>2.11 Radiated Susceptibility</p> <p>Alternative method Reverberation Chamber 80 MHz to 18 GHz Mode Tuning Pulse & CW (excluding mode stirring)</p> <p>CW: MHz V/m 80-400 200</p> <p>400 - 18000 200</p> <p>Pulse: MHz V/m 80-400 200 400 - 18000 350</p>	<p>MIL STD 461E</p> <p>MIL STD 461F RS103 DEF STAN 59-41:Part 3, Section 3, Issue 1:2003 DRS02 DEF STAN 59-411 Issue 1 A1 DEF STAN 59-411 Issue 2 DEF STAN 59-411 Issue 3 DRS02 AECTP-500 Ed 4 AECTP-500 Ed E NRS02</p> <p>EN 61000-4-21:2003 EN 61000-4-21:2011</p>
	2.12 Audio Frequency Conducted Susceptibility	RTCA DO 160 G Section 18
	2.13 Voltage Spike	RTCA DO 160 G Section 17 CAT B only
	2.14 Power Input Voltage and Frequency Voltage Modulation Frequency Modulation Momentary power interruptions Normal transients Normal Surge Voltage Normal Frequency Transients Normal Frequency Variations Voltage DC Content Voltage Distortion	RTCA DO 160 G Section 16



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited
Issue No: 041 Issue date: 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
As listed on Page 1	2 MILITARY EMC Tests (cont'd) 2.15 Magnetic Effect	RTCA DO 160 G Section 15
	2.16 Induced Signal Susceptibility 20 Hz to 50 kHz Magnetic Fields into equipment Electric Fields into equipment Magnetic Fields into Cables Electric Fields into Cables Spikes induced into Cables	RTCA DO 160 G Section 19 excluding: Paragraph 19.3.3 – category CC Paragraph 19.3.4 – category CC Paragraph 19.3.3 – category CN Paragraph 19.3.4 – category CN Paragraph 19.3.3 – category CW Paragraph 19.3.4 – category CW

Facilities and Resources

Laboratory Facilities Main Building

Fully Lined Anechoic Chamber ETC799
7.3 m x 4.3 m x 5 m
Doors 2 m x 1.4 m
Max load 250 kg / m²

Supplies 32 A 230 V / 415 V 50 Hz
16 A 115 V 50 Hz : 60 Hz and 400 Hz @ 3 kVA

Reverberation Chamber / Screened Room ETC800
7.3m x 4.3 m x 5 m
Doors 2 m x 2 m
Max load 1 tonne / m²
EUT volume 3.2 m x 2.4 m x 2 m

Supplies 32 A 230 V / 415 V 50Hz
16 A 115 V 50 Hz : 60 Hz and 400 Hz @ 3 kVA

Laboratory Facilities Unit 14

Semi Anechoic Chamber EMC054
7.3 m x 4.2 m x 4.2 m
Door 0.9 m x 2 m
Turntable max load 250 kg

Supplies 32 A 230 V / 415 V 50Hz
16 A 115 V 50 Hz : 60 Hz and 400 Hz @ 3 kVA



1896

Accredited to
ISO/IEC 17025:2017

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
2 Pine Trees, Chertsey Lane, Staines-upon-Thames, TW18 3HR, UK

Eurofins Electrical & Electronic UK Limited

Issue No: 041 **Issue date:** 16 February 2024

Testing performed at main address only

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
<p>Facilities and Resources (cont'd) Screened Room EMC</p> <p>3.6 m x 2.4 m x 2.4 m Door 0.86 m x 1.9 m</p> <p>Supplies 32 A 230 V / 415 V 50Hz 16 A 115 V 50 Hz : 60 Hz and 400 Hz @ 3 kVA</p> <p>Dedicated Test areas for: ESD Dips, variation, flicker & harmonics EFT Surge Conducted RF immunity</p>		
<p>Open Area Test Site Unit 14</p> <p>10 m and 3 m Covered Turntable max load 250kg</p> <p>Supplies 64 A 230 V / 415 V 50Hz 16 A 115 V 50 Hz : 60 Hz and 400 Hz @ 3 kVA</p>		
<p>END</p>		