


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 1936 Accredited to ISO/IEC 17025:2017	QinetiQ Ltd	
	Issue No: 041 Issue date: 22 November 2021	
	RF, E3 Test & Evaluation Cody Technology Park A5 Building, Room 2.47G Ively Road Farnborough Hampshire GU14 0LX	Contact: Mr Gavin Barber Tel: +44 (0)1252 392500 Fax: +44 (0)1252 397058 E-Mail: gdbarber@qinetiq.com Website: www.qinetiq.com
Testing performed by the Organisation at the locations specified below		

Locations covered by the organisation and their relevant activities

Laboratory locations:

Location details	Activity	Location code	
Address Cody Technology Park A5 Building, Room 2.47G Ively Road Farnborough Hampshire GU14 0LX	Local contact Mr Gavin Barber Tel: +44 (0)1252 393649 Fax: +44 (0)1252 397058 Email: gdbarber@qinetiq.com Website: www.qinetiq.com	<u>Testing:</u> Military EMC Tests Civil EMC Tests Full Aircraft EMC Tests	A
Address MOD Boscombe Down Salisbury Wiltshire SP4 0JF	Local contact Mr Elliot Jenkins Tel: +44 (0)1980662828 Email: ebjenkins@QinetiQ.com Website: www.qinetiq.com	<u>Testing:</u> Military aircraft EMC Tests RF Environment Test	B

Site activities performed away from the locations listed above

Location details	Activity	Location code
Any	<u>Testing:</u> Civil and Military EMC Tests Civil and Military EMC Tests for Large Vehicles, Platforms and Systems Note: Where applicable these tests must be carried out in a screened enclosure or other arrangements made to prevent contravention of the Wireless Communications Act.	D



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd)		
	1.3 Radiated Emissions (cont'd)		
	1.3.1 E Field: 10 kHz to 18 GHz	MIL STD 461D, E, F, G RE 102	A, D
	1.3.2 H Field: 20 Hz to 100 kHz	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DRE 02.B	A, D
		DEF STAN 59-411:2014 Part 3, Issue 2 DRE 02.B	A, D
		DEF STAN 59-411:2019 Part 3, Issue 3 DRE 02.B	A, D
	30 Hz to 100 kHz	MIL STD 461D E, F, G RE 101	A, D
	1.4 Conducted Susceptibility	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DCS 01.B	A, D
	1.4.1 Power Lines, Differential Mode 20 Hz to 400 MHz	DEF STAN 59-411:2014 Part 3, Issue 2 DCS 01.B	A, D
		DEF STAN 59-411:2019 Part 3, Issue 3 DCS 01.B	A, D
		SPE-J-000-E-1000 Feb 1991, Issue 1 CS-EFA-1	A, D
		MIL STD 461D, E, F, G CS 101 and CS 114	A, D
		RTCA/DO-160D, E, F, G Section 18.3.1 Section 18.3.2	A, D



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd)		
	1.4 Conducted Susceptibility (cont'd)		
	1.4.3 Control and Signal Lines 20 Hz to 50 kHz (cont'd)	RTCA/DO-160D, E, F, G Section 19.3.3	A, D
		RTCA/DO-160E, G Section 19.3.2	A, D
	1.4.4 Low Level Swept Current (LLSC) 200 kHz to 450 MHz	DEF STAN 59-411:2007 Part 4, Issue 1, including Amendment 1:2008 Annex A and B	B, D
		DEF STAN 59-411:2014 Part 4, Issue 2, Annex A and B	B, D
	DEF STAN 59-411:2019 Part 4, Issue 3, Annex A and B	D	
	EUROCAE ED-107A section 6.4.3	B,D	
1.4.5 Bulk Current Injection (BCI) 200 kHz to 450 MHz	DEF STAN 59-411:2007 Part 4, Issue 1, including Amendment 1:2008 Annex A and B	B,D	
	DEF STAN 59-411:2014 Part 4, Issue 2, Annex A and B	B,D	
	EUROCAE ED-107A section 8.3.1	B,D	



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd)		
	1.5 Transient Susceptibility Power, Control and Signal Lines		
	1.5.1 Imported Long Transient Susceptibility 700V 30A peak	DEF STAN 59-411:2007 Part 3 Issue 1, Including Amendment 1:2008 DCS 04.B	A, D
		DEF STAN 59-411:2014 Part 3, Issue 2 DCS 04.B	A, D
		DEF STAN 59-411:2019 Part 3, Issue 3 DCS 04.B	A, D
	1.5.2 Externally Generated Transients (Switching and NEMP) 100A peak	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DCS 05.B	A, D
		DEF STAN 59-411:2014 Part 3, Issue 2 DCS 05.B	A, D
		DEF STAN 59-411:2019 Part 3, Issue 3 DCS 05.B	A, D
	1.5.3 Imported Long Transient Susceptibility 2350V 100A peak	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DCS 06.B	A, D
	DEF STAN 59-411:2014 Part 3, Issue 2 DCS 06.B	A, D	
	DEF STAN 59-411:2019 Part 3, Issue 3 DCS 06.B	A, D	



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd)		
	1.5 Transient Susceptibility Power, Control and Signal Lines		
	1.5.4 Imported Low Frequency Transients 2500V peak	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DCS 12.B DEF STAN 59-411:2014 Part 3, Issue 2 DCS 12.B DEF STAN 59-411:2019 Part 3, Issue 3 DCS 12.B RTCA/DO-160E, F Section 17	A, D A, D A, D A, D
1.5.5 Damped Sinusoidal Transients Cables and Power leads 10 kHz to 100 MHz	MIL STD 461D, E, F, G CS 116	A, D	
1.6 ESD Up to 15 kV	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DCS 10.B MIL STD 461G CS118 DEF STAN 59-411:2014 Part 3, Issue 2 DCS 10.B DEF STAN 59-411:2019 Part 3, Issue 3 DCS 10.B RTCA-DO-160D, E, F, G Section 25 EN 61000-4-2:1995 EN 61000-4-2:2009	A, D A, D A, D A, D A, D	



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd)		
	1.7 Radiated Susceptibility		
	1.7.2 Electric Field 14 kHz to 18 GHz	DEF STAN 59-411:2007 Part 3, Issue 1, Including Amendment 1:2008 DRS 02.A DRS 02.B	A, D
	Field Strength Dependent on EUT Size and Frequency Range:		
	10 kHz - 100 MHz up to 400 V/m	DEF STAN 59-411:2014 Part 3, Issue 2 DRS 02. A and B	A, D
	100 MHz - 18 GHz up to 200 V/m	DEF STAN 59-411:2019 Part 3, Issue 3 DRS 02. A and B	A, D
		SPE-J-000-E-1000 Feb 1991, Issue 1 RS-EFA-3	A, D
	10 kHz to 18 GHz	MIL STD 461D, 1E F, G RS 103	A, D
	14 kHz to 18 GHz	RTCA/DO-160D Section 20.5	A, D
		RTCA/DO-160D Change No 1, Section 20.5	A, D
	RTCA/DO-160E, F, G Section 19.3.4	A, D	
	RTCA/DO-160E, F, G Section 20.5	A, D	



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As listed on Pages 2 and 3	1 MILITARY EMC TESTS (cont'd) 1.7 Radiated Susceptibility 1.7.3 Alternative Method Reverberation Chamber 200 MHz to 18 GHz Mode Stir Approximate Achievable Field Strengths: <table border="0"> <tr> <td>GHz</td> <td>V/m</td> </tr> <tr> <td>0.2-0.3</td> <td>1000</td> </tr> <tr> <td>0.3-1.0</td> <td>1800</td> </tr> <tr> <td>1.0-1.5</td> <td>8000</td> </tr> <tr> <td>1.5-2.0</td> <td>8000</td> </tr> <tr> <td>2.0-2.5</td> <td>6500</td> </tr> <tr> <td>2.5-4.0</td> <td>7200</td> </tr> <tr> <td>4.0-5.0</td> <td>6500</td> </tr> <tr> <td>5.0-6.0</td> <td>6000</td> </tr> <tr> <td>6.0-15.0</td> <td>6500</td> </tr> <tr> <td>15.0-18.0</td> <td>4800</td> </tr> </table>	GHz	V/m	0.2-0.3	1000	0.3-1.0	1800	1.0-1.5	8000	1.5-2.0	8000	2.0-2.5	6500	2.5-4.0	7200	4.0-5.0	6500	5.0-6.0	6000	6.0-15.0	6500	15.0-18.0	4800	ED14D, Section 20:1997 ED14G, Section 20:2010 RTCA DO-160D Section 20.5 RTCA DO-160G Section 20.6	A A A A
	GHz	V/m																							
0.2-0.3	1000																								
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	1.7.4 Alternative Method Reverberation Chamber 200 MHz to 18 GHz Mode Tuned Approximate Achievable Field Strengths: <table border="0"> <tr> <td>GHz</td> <td>V/m</td> </tr> <tr> <td>0.2-0.3</td> <td>480</td> </tr> <tr> <td>0.3-0.4</td> <td>550</td> </tr> <tr> <td>0.4-0.5</td> <td>650</td> </tr> <tr> <td>0.5-0.6</td> <td>750</td> </tr> <tr> <td>0.6-0.7</td> <td>800</td> </tr> <tr> <td>0.7-0.8</td> <td>850</td> </tr> <tr> <td>0.8-0.9</td> <td>900</td> </tr> <tr> <td>0.9-1.0</td> <td>950</td> </tr> <tr> <td>1.0-2.0</td> <td>2000</td> </tr> <tr> <td>2.0-18.0</td> <td>1000</td> </tr> </table>	GHz	V/m	0.2-0.3	480	0.3-0.4	550	0.4-0.5	650	0.5-0.6	750	0.6-0.7	800	0.7-0.8	850	0.8-0.9	900	0.9-1.0	950	1.0-2.0	2000	2.0-18.0	1000	MIL STD 461F, G RS103	A
GHz	V/m																								
0.2-0.3	480																								
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	1.8 Magnetostatic Field (DC) Susceptibility Max EUT size: 1.1 m x 1.1 m x 1.1 m Field strength up to 3600 A/m (6.75 mT) Other EUT sizes and field strengths accommodated on request	DEF STAN 59-411:2007 Part 3 Issue 1, Including DRS 03B DEF STAN 59-411:2014 Part 3, Issue 2 DRS 03.B DEF STAN 59-411:2019 Part 3, Issue 3 DRS 03.B	A, D A, D A, D
	1.9 Low Level Swept Field 100MHz to 18GHz	EUROCAE ED-107A section 6.4.4 DEF STAN 59-411:2014 Part 4 Issue 2 DEF STAN 59-411:2019 Part 4 Issue 3	A, D A, D
	1.10 High Level Radiated Susceptibility 10 kHz to 30 MHz 100 to 200V/m Height dependent 30 MHz to 1GHz Up to 500V/m See DEF STAN 59-411 Tables 7 to 11 for full capability Minimum of 1000V/m up to and in excess of 3000V/m depending on on test site, Frequency range required and EUT.	EUROCAE ED-107A section 7.4.2 DEF STAN 59-411:2014 Part 4 Issue 2	A, D
	1.11 RF Radiation Surveys 10 kHz to 40 GHz	BS EN 60945:2002, Clause 12.2 IEC 945:2002, Clause 12.2	A, D



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Facilities for EMC Testing:

Screened Enclosures (dimensions L x B x H in metres)

- 10 x 6 x 7 (ferrite lined semi-anechoic Tempest/EMC) Chamber F
- 8 x 5 x 6 (ferrite lined semi-anechoic) Chamber H

Maximum EUT size: Note: The access doors restrict the size of EUT

- Door size 3 m x 3 m Chamber F
- Door size 1.5 m x 2.5 m Chamber H

Power Supplies available:

- Three phase: 200V 32A 400 Hz
- 200V 16A 400 Hz A/C Supply
- 415V 63A 50 Hz
- 200V 32A 400 Hz (Rotary Generator)
- 440V 60A 60 Hz
- 415V 32A 50Hz

- Single phase: 230V 100A 50 Hz
- 115V 1 kVa 400 Hz
- 115V 50A 60 Hz (External Inverter only)

- DC: 28V 100A
- Other specialist supplies available on request

Compressed air up to 100 psi, in F & H

and all environmental areas
Domestic Water services available at mains pressure



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As listed on Pages 2 and 3	2. RF ENVIRONMENT TESTING 5 MHz to 34.8GHz Specific bands covered: HF (ITU band 7) 5-30 MHz Nominal Field strength: Vert: 200 V/m Horiz: 50 V/m VHF (ITU band 8) 30-200 MHz Nominal Field strength: Vert: 200 V/m Horiz: 200 V/m UHF (ITU band 9) 200-1000 MHz Nominal Field strength: Vert: 150 V/m Horiz: 150 V/m SHF/EHF (ITU band 10) 1.3 to 34.8 GHz Field strength: Mean: 600 V/m Peak: 20,000 V/m (Circular polarisation) EHF (ITU band 11) 1.3 to 34.8 GHz Field strength: Mean: 200 V/m Peak: 6000 V/m (Circular polarisation)	DEF STAN 59-411 Part 4 Issue 2	B
END			