


Schedule of Accreditation

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United Kingdom Accreditation Service

21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

 <p>0066</p> <p>Accredited to ISO/IEC 17025:2005</p>	<h3>MBDA UK Limited</h3>	
	<p>Issue No: 025 Issue date: 30 December 2011</p>	<p>Environmental Engineering Department PB 500 PO Box 19 Six Hills Way Stevenage Hertfordshire SG1 2DA</p>
		<p>Contact: Mr V Patel/Mr S Warner Tel: +44 (0)1438 752857/752873 Fax: +44 (0)1438 753130 E-Mail: simon.warner@mbda-systems.com Website:</p>
<p>Testing performed at the above address only</p>		

DETAIL OF ACCREDITATION

Materials/Products tested	Type of test/Properties measured/Range of measurement	Standard specifications/ Equipment/Techniques used
AEROSPACE STRUCTURES MATERIALS AND EQUIPMENT SATELLITES AND SUBASSEMBLIES MISSILES AND MISSILE COMPONENTS WEAPONS AND SUBASSEMBLIES MOTOR VEHICLE, ACCESSORIES AND COMPONENTS AGRICULTURAL EQUIPMENT MARINE EQUIPMENT MINING EQUIPMENT ELECTRO-MECHANICAL DEVICES ELECTRICAL/ELECTRONIC PRODUCTS AND COMPONENTS COMPUTERS AND PERIPHERALS	<p>ENVIRONMENTAL TESTS (NON-EXPLOSIVE ITEMS)</p> <p>Climatic</p> <p><u>High temperature - Low humidity</u> - constant and cyclic (Lowest humidity 14 % RH)</p> <p>Max temp: + 150 °C Max chamber size: 2.7 m x 0.9 m x 1.0 m Working space: 2.55 m x 0.75 m x 0.85 m</p> <p>Max temp: + 130 °C Max chamber size: 7.3 m x 3.0 m x 3.3 m Working space: 6.8 m x 2.5 m x 2.8 m</p> <p>Max temp: + 70 °C Max chamber size: 9.1 m x 4.5 m x 4.5 m Working space: 8.6 m x 4.1 m x 4.1 m</p>	<p>BS EN 60068-2-2:2007 Test B DEF-STAN 07-55:1975 Test B1 DEF-STAN 00-35/3 Tests CL1, CL2 DEF-STAN 81-41/4 Test C MIL-STD-810F:2000 Method 501.4 RTCA/DO-160E Section 4 - Constant Section 5 - Cyclic</p>



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Continued from Page 1 RADAR EQUIPMENT DOMESTIC APPLIANCES PACKAGES AND PACKAGING MATERIAL FIRE PROTECTION EQUIPMENT TELECOMMUNICATIONS EQUIPMENT ACOUSTIC MATERIALS TRANSPORT EQUIPMENT VEHICLES	<p>ENVIRONMENTAL TESTS (NON-EXPLOSIVE ITEMS) (cont'd)</p> <p>Climatic (cont'd)</p> <p><u>High temperature</u> - solar radiation (thermal effects only)</p> <p>Bandwidth: 0.4 μm - 3 μm Max irradiance: 1140 W/m² Max chamber size: 9.1 m x 4.5 m x 4.5 m Working space: 8.1 m x 3.6 m x 3.1 m high</p> <p><u>Low temperature</u> - constant and cyclic</p> <p>Min temp: - 60 °C Chamber size: 1.35 m x 1.2 m x 0.74 m Working space: 1.2 m x 1.05 m x 0.59 m Min temp: - 60 °C Max chamber size: 7.3 m x 3 m x 3.3 m high Working space: 6.8 m x 2.5 m x 2.8 m Min temp: - 46 °C Max chamber size: 9.1 m x 4.5 m x 4.5 m Working space: 8.6 m x 4.0 m x 4.0 m</p> <p><u>Thermal shock</u> - two chambers - manual transference</p> <p>Max temp: + 150 °C Min temp: - 60 °C (for chamber sizes, see above)</p>	<p>DEF-STAN 07-55:1975 Test B3 DEF-STAN 00-35/3 Test CL2 MIL-STD-810F:2000 Method 505.4 DEF-STAN 81-41/4 Test N</p> <p>BS EN 60068-2-1:2007 Test A DEF-STAN 07-55:1975 Test B4 DEF-STAN 0035/3 Tests CL4, CL5 MIL-STD-810F:2000 Method 502.4 RTCA/DO-160E Section 4 - Constant Section 5 - Cyclic DEF-STAN 81-41/4 Test G</p> <p>BS EN 60068-2-14:2009 BS 3G100:Part 2 Subsect 3.15:1978(1983) Category B only DEF-STAN 07-55:1975 Test B14 DEF-STAN 00-35/3 Test CL14 MIL-STD-810F:2000 Method 503.4</p>



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As listed on Pages 1 and 2	<p>ENVIRONMENTAL TESTS (NON-EXPLOSIVE ITEMS) (cont'd)</p> <p>Climatic (cont'd)</p> <p><u>High temperature - High humidity</u> - constant and cyclic</p> <p>Temp range: + 20 °C to + 71 °C Humidity range: 20 % RH to 98 % RH Max chamber: 7.3 m x 3.0 m x 3.3 m Working space: 6.8 m x 2.5 m x 2.8 m high</p> <p><u>Rapid pressure change</u></p> <p>Max rates of change -</p> <p>a) climb: sea level to 56 mb (19812 m) in 6.5 mins sea level to 28 mb (24384 m) in 9 mins decompression: 16 mb to sea level in 40 s</p> <p>Chamber size: 1.35 m x 1.2 m x 0.74 m Working space: 1.2 m x 1.05 m x 0.59 m</p> <p>b) climb: sea level to 350 mb (8120 m) in 2.5 s decompression: 350 mb to sea level in 5 s</p> <p>Chamber size: 0.7 m (long) x 0.15 m (diameter)</p>	<p>BS 2011:Ca:1977 BS EN 60068-2-66:1995 BS 2011:Db:1981 BS EN 60068-2-67:1996 DEF-STAN 07-55:1975 Test B6 and B7 DEF-STAN 00-35/3 Tests CL6, CL7, CL8 DEF-STAN 81-41/4 Tests B, J MIL-STD-810F:2000 Method 507.4 RTCA/DO-160E Section 4 Section 6</p> <p>DEF-STAN 07-55:1975 Test B9 DEF-STAN 00-35/3 Test CL9 (Rapid Decompression only), CL20, CL21 DEF-STAN 00-3/3 Section F, Para 34.8 MIL-STD-810F:2000 Method 500.4, Procedure III</p>



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As listed on Pages 1 and 2	<p>ENVIRONMENTAL TESTS (NON-EXPLOSIVE ITEMS) (cont'd)</p> <p>Climatic (cont'd)</p> <p><u>High temperature - Low pressure</u></p> <p>Max temp: + 100 °C Max equiv altitude: 30 480 m Max chamber size: 1.35 m x 1.2 m x 0.74 m Working space: 1.2 m x 1.05 m x 0.59 m Max temp: + 130 °C Max equiv altitude: 22 860 m Max chamber size: 7.3 m x 3.0 m x 3.3 m high Working space: 6.8 m x 2.5 m x 2.8 m</p> <p><u>Low temperature - Low pressure</u></p> <p>Min temp: - 60 °C Max equiv altitude: 22 860 m Max chamber size: 7.3 m x 3.0 m x 3.3 m Working space: 6.8 m x 2.5 m x 2.8 m Min temp: - 60 °C Max equiv altitude: 30 480 m Max chamber size: 1.35 m x 1.2 m x 0.74 m high Working space: 1.2 m x 1.05 m x 0.59 m</p> <p>Temperature - Low pressure - Humidity</p> <p>Max temp: +71C Min temp: -60C Humidity range: 20%RH to 98%RH Min pressure: 2.243KPa Max equivalent altitude: 22,860m Max chamber size: 7.3m x 3.0m x 3.3m high Working space: 6.8m x 2.5m x 2.8m</p>	<p>BS 3G100:Part 2 Subsect 3.2:1970(1983) DEF-STAN 07-55:1975 Test B11 DEF-STAN 00-35/3 Test CL11 MIL-STD-810F:2000 Method 500.4, Procedures I and II RTCA/DO-160E Section 4 MIL-STD 810D Method 520.0</p> <p>BS 3G100:Part 2 Subsect 3.2:1970(1983) DEF-STAN 07-55:1975 Test B12 DEF-STAN 00-35/3 Test CL12 MIL-STD-810F:2000 Method 500.4, Procedures I and II RTCA/DO-160E Section 4</p> <p>RTCA/DO-160D Section 24. BS EN 60068-2-39. RTCA/DO-160D Section 24. BS EN 60068-2-39. DEF STAN 00-35/3 Test CL13, Procedure B, Severities A to G</p>



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AEROSPACE STRUCTURES, MATERIALS AND EQUIPMENT SATELLITES AND SUBASSEMBLIES MOTOR VEHICLE ACCESSORIES AND COMPONENTS ELECTRO-MECHANICAL DEVICES HYDRAULIC EQUIPMENT PACKAGING AND PACKAGING MATERIALS RADAR EQUIPMENT TELECOMMUNICATION EQUIPMENT ACOUSTIC MATERIALS	<p>STRUCTURAL TESTS</p> <p><u>Structural/Fatigue</u></p> <p>Test Frame Max static/dynamic: 200 kN force</p> <p>Schenck tension/compression machines Max static/dynamic: 160 kN force</p> <p>Shimadzu tension/comp machine Max static: 100 kN force</p> <p>Hounsfield tension/comp machine Max static: 5 kN force</p> <p>Max amb temperature: + 400 °C Min amb temperature: - 60 °C</p> <p>Max local temperature: + 700 °C Min local temperature: - 60 °C</p> <p>Pressure (hydraulic) Max static: 1550 bar</p> <p>Measurements in support of Structural/Fatigue tests: Force Mechanical strain Length/displacement Pressure Temperature</p>	<p>DEF-STAN 07-55:1975 Test A12 to A15 DEF-STAN 00-35/3 Tests M15 to M18 DEF-STAN 81-41/3 Tests F, M, P DEF-STAN 00-970 Part 1/5 Section 3, Leaflet 37</p>
	END	