


Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>UKAS TESTING 0042</p> <p>Accredited to ISO/IEC 17025:2005</p>	<h3>Abtest Ltd</h3> <p>Issue No: 021 Issue date: 24 July 2009</p>	
	<p>Abercynon Mountain Ash Mid Glamorgan Wales CF45 4SF</p>	<p>Contact: Mr R G Morgan Tel: +44 (0)1443 743440 Fax: +44 (0)1443 741033 E-Mail: warrenc@abtest.com Website: www.abtest.com</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
<p>GENERAL NON-EXPLOSIVE MATERIALS AND EQUIPMENT including:</p> <p>AEROSPACE STRUCTURES, MATERIALS AND EQUIPMENT AGRICULTURAL EQUIPMENT COMPUTERS AND PERIPHERALS CONSTRUCTION PLANT, EQUIPMENT, PRODUCTS AND MATERIALS DOMESTICAL APPLIANCES ELECTRICAL/ELECTRONIC COMPONENTS, CONNECTORS AND PRODUCTS ELECTRO-MECHANICAL DEVICES HYDRAULIC EQUIPMENT AND FITTINGS MARINE EQUIPMENT MECHANICAL PRODUCTS AND PLANT MICRO-ELECTRONIC CIRCUITS AND COMPONENTS MINING COMPONENTS AND EQUIPMENT MOTOR VEHICLE COMPONENTS AND COMPONENTS OFFICE EQUIPMENT PRINTED CIRCUIT BOARDS AND ASSEMBLIES RADAR EQUIPMENT RADIO AND TV EQUIPMENT</p>	<p>ENVIRONMENTAL TESTS (non-explosive items)</p> <p>CLIMATIC Single Parameters</p> <p>HIGH TEMPERATURE Max temp: +300°C Max chamber size: 0.6 m x 0.6 m x 0.6 m</p> <p>LOW TEMPERATURE Min temp: -80°C Max chamber size: 0.4 m x 0.5 m x 0.7 m</p>	<p>BS EN 60068-2-2 : 2007 Test Bb BS EN 60068-2-2:1993 Tests Ba,Bb BS 2011:B:1977(1980) Tests Ba, Bb IEC 68-2-2:1974(1976) Tests Ba,Bb DEF STAN 00-35 Part 3 Issue 4 Test CL1 DEF STAN 07-55:1975 Test B1 MIL STD 202G :2002 Method 108A MIL-STD 202F:1980 Method 108A MIL STD 810G:2002 Method 501.5 MIL STD 810F:2000 Method 501.4 MIL-STD 810E:1989 Method 501.3 MIL-STD 1344A:1977 Method 1005.1 MIL-C 38999J 4.7.33.1 RTCA/DO-160 D / E & F Section 4</p> <p>BS EN 60068-2-1: 2007 Test Ab BS EN 60068-2-1:1993 Tests Aa, Ab BS 2011:A:1977 & 1990 Tests Aa, Ab IEC 68-2-1:1990 Test Aa, Ab DEF STAN 07-55:1975 Test B4 MIL STD 810G:2002 Method 502.5 MIL STD 810F Method 502.4</p>



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<p>GENERAL NON-EXPLOSIVE MATERIALS AND EQUIPMENT including: (cont'd)</p> <p>SAFETY APPLIANCE AND EQUIPMENT</p> <p>SATELLITES AND SUB-ASSEMBLIES</p> <p>SECURITY DEVICES AND ALARMS</p> <p>STRUCTURES AND COMPONENTS</p> <p>TELECOMMUNICATION EQUIPMENT</p>	<p>ENVIRONMENTAL TESTS (non-explosive items) (cont'd)</p> <p>CLIMATIC</p> <p>Single Parameters (cont'd)</p> <p>LOW TEMPERATURE (cont'd)</p> <p>TEMPERATURE CHANGE (Thermal Shock)</p> <p>Max temp: +300°C Chamber size: 0.6 m x 0.6 m x 0.6 m</p> <p>Min temp: -80°C Chamber size: 0.4 m x 0.5 m x 0.7 m</p>	<p>MIL-STD 810E:1989 Method 502.3 MIL-C 38999J 4.7.39 RTCA/DO-160 D / E & F, Section 4 MIL STD 1344A:1977 Method 1002.2 DEF STAN 00-35 Part 3 Issue 4 Test CL4</p> <p>BS EN 60068-2-14:2000 BS 2011:N:1985(1987) Tests Na, Nb, Nc IEC 68-2-14:1984 Tests Na, Nb, Nc DEF STAN 00-35 Part 3 Issue4 Test CL14 DEF STAN 07-55:1975 Test B14 MIL-STD 202F:1980 Method 107G MIL STD 810G:2008 Method 503.5 MIL STD 810F:2000 Method 503.4 MIL-STD 810E:1989 Method 503.3 MIL STD 883G Methods 1010.8,1011.9 MIL-STD 883D:1991 Methods 1010.7, 1011.9 MIL-STD 1344A:1977 Method 1003.1 MIL-C 38999J 4.7.4 RTCA/DO-160 D / E & F, Section 5 DEF STAN 00-35 Part 3, Issue 4 Test CL5 DEF STAN 07-55:1975 Test B5 MIL STD 202G:2002 Method 107G</p>



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<p>GENERAL NON-EXPLOSIVE MATERIALS AND EQUIPMENT including: (cont'd)</p> <p>As listed on Pages 1 and 2</p>	<p>ENVIRONMENTAL TESTS (non-explosive items) (cont'd)</p> <p>CLIMATIC Single Parameters (cont'd)</p> <p>HIGH HUMIDITY - steady state</p> <p>Temp range: +10°C to +100°C Humidity range: 10% RHRHo 98% rh Max chamber size: 0.8 m x 0.8 m x 0.5 m</p> <p>HIGH HUMIDITY - cyclic</p> <p>Temp range: -25°C to +100°C Humidity range: 10% RH to 95% RH Max chamber size: 0.5 m x 0.5 m x 0.5 m</p>	<p>BS EN 60068-2-78 :2002 Test Cab IEC 60068-2-78 :2001 Test Cab BS EN 60068-2-56:1990 BS 2011:Ca:1977(1987) BS 2011:Cb:1990 IEC 68-2-3:1969 IEC 68-2-56:1988 DEF STAN 00-35 Part 3 Issue 4 Test CL7 DEF STAN 07-55:1975 Test B7 MIL-STD 202G:2002 Method 103B MIL-STD 202F:1980 Method 103B MIL-STD 1344A:1977 Method 1002.2 MIL-C 38999J 4.7.25</p> <p>BS EN 60068-2-30 :2005 BS EN 60068-2-30:1999 BS EN 60068-2-30:1981 IEC 60068-2-30 :1980 BS 2011:Db:1981 IEC 68-2-30:1980 DEF STAN 07-55:1975 Tests B6, B8 MIL-STD 202G:2002 Method 106G MIL-STD 202F:1980 Method 106F MIL-STD 810F:2002 Method 507.4 MIL-STD 810E:1989 Method 507.3 MIL-STD 883D:1991 Method 1004.7 MIL-STD 1344A:1977 Method 1002.2 MIL-C 38999J 4.7.25 RTCA/DO-160 D, E & F Section 6 MIL-STD 883G: 2006 Method 1004.7 BS EN 60068-2-38:1999 Test Z/AD</p>



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<p>GENERAL NON-EXPLOSIVE MATERIALS AND EQUIPMENT including: (cont'd)</p> <p>As listed on Pages 1 and 2</p>	<p>ENVIRONMENTAL TESTS (non-explosive items) (cont'd)</p> <p>FUNCTIONAL TESTS/ANCILLARY MEASUREMENTS (cont'd)</p> <p>DC RESISTANCE 1 $\mu\Omega$ to 1 TΩ</p> <p>CAPACITANCE 10 pF to 100 mF</p> <p>INDUCTANCE 1 μH to 100 H</p> <p>FREQUENCY 1 Hz to 1.3 GHz</p> <p>LINEAR 1 μm to 200 mm</p> <p>MASS 10 mg to 120 kg</p> <p>FORCE 0.05 N to 12 kN (tensile) 0.05 N to 1.2 kN (compression)</p> <p>RUBBER HARDNESS 30 IRHD to 100 IRHD</p>	<p>MP 005:Issue 1:1997</p> <p>MP 006:Issue 1:1997</p> <p>MP 007:Issue 1:1997</p> <p>MP 008:Issue 1:1997</p> <p>MP 014:Issue 1:1997</p> <p>MP 015:Issue 1:1997</p> <p>MP 016:Issue 1:1997</p> <p>MP 019:Issue 2:2007</p>
	END	