

Schedule of Accreditation

issued by

United Kingdom Accreditation Service

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

 <p>Accredited to ISO/IEC 17025:2005</p>	<h3>Alphatech Limited</h3> <p>Issue No: 008 Issue date: 14 April 2008</p>	
	<p>Green House Homefield Road Industrial Estate Haverhill Suffolk CB9 8QP</p>	<p>Contact: Mr G E J Catling Tel: +44 (0)1440 714709 Fax: +44 (0)1440 714706 E-Mail: info@alphatech.co.uk Website: www.alphatech.co.uk</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>AEROSPACE COMPONENTS AND EQUIPMENT</p> <p>COMPUTERS AND PERIPHERALS</p> <p>ELECTRICAL/ELECTRONIC PRODUCTS AND COMPONENTS</p> <p>ELECTRICAL/ELECTRONIC CONNECTORS</p> <p>ELECTRO-MECHANICAL DEVICES</p> <p>MARINE EQUIPMENT</p> <p>MEDICAL EQUIPMENT</p> <p>MICRO-ELECTRONIC CIRCUITS AND COMPONENTS</p> <p>MOTOR VEHICLE ACCESSORIES AND COMPONENTS</p>	<p><u>Environmental Tests</u></p> <p>(non explosive items)</p> <p><u>DYNAMIC</u></p> <p>Single Parameters</p> <p>Vibration - Sinusoidal</p> <p>Freq Range: 5 - 2000 Hz Peak Thrust: 26.7 kN Max displacement: ± 25.5 mm Temp Range: Ambient Axes: Vertical only</p>	<p>BS 2011:Fc:1983(1986) BS 2011:Fd:1973(1984) BS EN 60068-2-6:1996 IEC 68-2-6:1995 DEF STAN 00-35:1999:Test M1 MIL STD 810F:2000:Method 514.5 RTCA/DO-160D:Section 8 UN Reg: ST/SG/AC.10/11/Rev.4: Test T.3 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-2:1999 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-8:1999</p>
<p>RADAR EQUIPMENT</p> <p>RADIO AND TELEVISION EQUIPMENT</p> <p>SATELLITES AND SUB-ASSEMBLIES</p> <p>SECURITY DEVICES AND ALARMS</p>	<p>Vibration - Random</p> <p>Freq Range: 5 - 2000 Hz Peak Thrust: 22.24 kN Max displacement: ± 25.5 mm Temp Range: Ambient Axes: Vertical only</p>	<p>BS 2011:F:1973(1984) Tests Fd, Fda, Fdb and Fdc IEC 68-2-34:1973 IEC 68-2-37:1973 BS EN 60068-2-64:1995 DEF STAN 00-35:1999:Test M1 MIL STD 810F:2000:Method 514.5 RTCA/DO-160D:Section 8 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-2:1999</p>



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Continued from Page 1 TELECOMMUNICATIONS EQUIPMENT	<p><u>Environmental Tests</u> (cont'd)</p> <p>(non explosive items) (cont'd)</p> <p><u>DYNAMIC</u> (cont'd)</p> <p>Vibration - Random (cont'd)</p> <hr/> <p>Shock (In vertical axis only)</p> <p>(Half sine, trapezoidal)</p> <p>Severity: 1 g to 80 g Duration: 0.2 ms to 100 ms (severity dependent) Max mass: 500 kg Temp range: Ambient</p> <p>(Half sine)</p> <p>Max Severity: 200 g Max Duration: 16 ms (severity dependent) Max mass: 500 kg Temp range: Ambient</p> <p>(Terminal peak saw tooth)</p> <p>Severity: 1 g to 75 g Duration: 1 ms to 100 ms (severity dependent) Max mass: 500 kg Temp range: Ambient</p>	<p>ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999</p> <hr/> <p>BS 2011: Ea:1988 BS EN 60068-2-27:1993 IEC 68-2-27:1987 DEF STAN 00-35:1999:Test M3 MIL STD 810F:2000:Method 516.5 RTCA/DO-160D:Section 7 UN Reg: ST/SG/AC.10/11/Rev.4: Test T.4 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999</p>



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As listed on Pages 1 and 2	<u>Environmental Tests</u> (cont'd) (non explosive items) (cont'd) <u>DYNAMIC</u> (cont'd) Bump (In vertical axis only) Severity: 1 g to 75 g Duration: 1 ms to 50 ms (severity dependant) Max mass: 500 kg Temp range: Ambient	BS 2011:Ec:1977(1983) BS EN 60068-2-29:1993 IEC 68-2-29:1987 DEF STAN 00-35:1999:Test M12 ETSI EN 300 019-2-2:1999 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999
	<u>CLIMATIC</u> High Temperature (Constant and cyclic) Max temp: +150 °C Max chamber size: 0.85 m x 0.83 m x 0.85 m Max temp +100 °C Max chamber size: 1.88 m x 1.98 m x 2.13 m	BS 2011:B:1977(1980) BS EN 60068-2-2:1993 Tests Ba, Bb, Bd IEC 68-2-2:1974(1976) IEC60068-2-2:1974 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-2:1999 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999 DEF STAN 00-35:1999:Test CL1 MIL STD 810F:2000:Method 501.4
	Low Temperature (Constant and cyclic) Min temp: -70 °C Max chamber: 0.85 m x 0.83 m x 085 m	BS 2011:A:1990 BS EN 60068-2-1:1993 Tests Aa, Ab, Ad IEC 68-2-1:1990 IEC60068-2-1:1993 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-2:1999 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003



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As listed on Pages 1 and 2	<u>Environmental Tests</u> (cont'd) (non explosive items) (cont'd) <u>CLIMATIC</u> (cont'd) Low Temperature (Constant and cyclic) (cont'd) Min temp: -70 °C Max chamber: 1.88 m x 1.98 m x 2.13 m	ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999 DEF STAN 00-35:1999:Test CL4 DEF STAN 00-35:1999:Test CL5 MIL STD 810F:2000:Method 502.4
	Change of Temperature (Thermal Shock) Automatic transference Rapid - Air to Air Temp range: -70 °C to +150 °C Max chamber: 0.47 m x 0.64 m x 0.4 m Gradual - Single Chamber Temp range: -70 °C to +150 °C Max rate of change: 15 °C/min Max chamber: 0.65 m x 0.6 m x 0.55 m	BS 2011:N:1985(1987) Tests Na, Bb BS EN 60068-2-14:2000 Tests Na, Nb IEC 68-2-14:1984 ETSI EN 300 19-2-1:2000 ETSI EN 300 19-2-2:1999 ETSI EN 300 19-2-3:1999 DEF STAN 00-35:1999:Test CL14 MIL STD 810F:2000:Method 503.4 RTCA/DO-160D:Section 5 UN Reg: ST/SG/AC.10/11/Rev.4: Test T.2 ETSI EN 300 019-2-1:2000 ETSI EN 300 019-2-2:1999 ETSI EN 300 019-2-3:2003 ETSI EN 300 019-2-4:2003 ETSI EN 300 019-2-5:2002 ETSI EN 300 019-2-6:2002 ETSI EN 300 019-2-7:2003 ETSI EN 300 019-2-8:1999
	High Humidity (Constant and cyclic) Humidity range: 50% RH to to 95% RH Temp range: +25 °C to +85 °C Max chamber size: 0.85 m x 0.83 m x 0.85 m	BS 2011:Ca:1977(1987) BS 2011:Cb:1990 BS 2011:Db:1981(1987) BS EN 60068-2-30:1999 BS EN 60068-2-78:2001 IEC 68-2-3:1969 IEC 68-2-30:1980 IEC 68-2-56:1988 DEF STAN 00-35:1999:Test CL7



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	Salt Spray Temp range: Ambient to +55 °C Chamber size: 1.46 m x 1.04 m x 0.72 m	BS EN 60068-2-11 Test Ka BS EN 60068-2-52 Test Kb ASTM B117-03 (superseded) Fog ASTM B117-07 Fog DEF STAN 00-35:1999:Test CN2 MIL STD 810F:2000:Method 509.4 RTCA/DO-160D:Section 14
	END	