


Schedule of Accreditation

issued by
United Kingdom Accreditation Service
21 – 47 High Street, Feltham, Middlesex, TW13 4UN, UK

 Accredited to ISO/IEC 17025:2005	Aeroflex Test Solutions Limited Issue No: 016 Issue date: 4 January 2011	
	Longacres House Six Hills Way Stevenage Hertfordshire SG1 2AN	Contact: Aeroflex Customer Service Helpdesk Tel: +44 (0)8706 080134 Fax: E-Mail: europe.service@aeroflex.com Website: www.aeroflex.com
Calibration performed by the Organisations at the locations specified overleaf		

The locations covered by the organisation and their relevant activities are shown on Page 2 of this Schedule of Accreditation. Links to the relevant parts of the schedule for each type of calibration performed are included below.

Measured Quantity Instrument or Gauge	Measurement Standards Laboratory, Stevenage	Operations Standards Laboratory, Stevenage and customers' sites	Measurement Standards Laboratory, Donibristle	Aeroflex France S.A.S., Bondoufle	Mechanical Laboratory, Stevenage
Electrical Quantities and Instruments					
AC Current	▶		▶		
AC Power	▶				
AC Power Factor	▶				
AC Voltage	▶		▶		
AC Voltage Ratio	▶				
Amplitude Modulation	▶		▶		
Capacitance	▶		▶		
DC Current	▶		▶		
DC Resistance	▶		▶		
DC Power	▶				
DC Voltage	▶		▶		
DC Voltage Ratio	▶				
Dissipation Factor (capacitance loss)	▶				
Distortion (waveform analysis)	▶				
Frequency	▶		▶	▶	
Frequency Modulation	▶				
Inductance	▶		▶		
Phase Angle (LF)	▶				
Phase Angle (RF)			▶		
Portable Appliance Testers			▶		
Racal 6100/6400 series radio test sets		▶		▶	
Racal RF Multifunction Units		▶			
RF Attenuation	▶		▶		
RF Calibration Factor	▶		▶		
RF Power	▶		▶ ▶		
RF Voltage	▶				
Spectral Intensity	▶		▶		
Time Interval	▶				
VRC/SWR	▶		▶		
Dimensional Quantities and Instruments					
					▶



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Laboratory locations:

Location details	Activity	Location code
<p>Address Aeroflex International Limited Measurement Standards Laboratory Sanders Building Gunnels Wood Road Stevenage Hertfordshire SG1 2AU</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: DC and LF electrical quantities RF and microwave electrical quantities</p>	Stevenage
<p>Address Aeroflex International Limited Measurement Standards Laboratory Muirton Way Donibristle Industrial Park Dalgety Bay Fife Scotland KY11 9FZ</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: DC and LF electrical quantities RF and microwave electrical quantities</p>	Donibristle
<p>Address Aeroflex International Limited Operations Standards Laboratory Six Hills Way Stevenage Hertfordshire SG1 2AN</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: Racal 6100 and 6400 Product Series</p>	Stevenage and customers' sites
<p>Customers' sites or premises The customers' site or premises must be suitable for the nature of the particular calibrations undertaken and will be the subject of contract review arrangements between the laboratory and the customer.</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: Racal 6100 and 6400 Product Series</p>	
<p>Address Aeroflex France S.A.S. Z1 la Marinière 6, rue Bernard Palissy 91919 Bondoufle Cedex France</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: Racal 6100 Product Series Frequency measurements</p>	Bondoufle
<p>Address Aeroflex International Limited Mechanical Metrology Laboratory Sanders Building Gunnels Wood Road Stevenage Hertfordshire SG1 2AU</p> <p>Local contact Aeroflex Customer Service Helpdesk Tel: +44 (0) 8706 080134 Email: europe.service@aeroflex.com</p>	<p>Calibration: Dimensional Quantities and Instruments</p>	Stevenage



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

DETAIL OF ACCREDITATION

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
MEASUREMENT STANDARDS LABORATORY, STEVENAGE				
DC RESISTANCE				Stevenage
Specific Values	0.1 Ω 1 Ω 10 Ω 100 Ω 1 k Ω 10 k Ω	8.0 ppm 2.8 ppm 2.8 ppm 2.8 ppm 2.8 ppm 2.8 ppm	4 terminal resistors of modest dimensions suitable for oil immersion can be measured over the temperature range 14°C to 30°C	
Other Values	0 Ω to 1 Ω 1 Ω to 10 k Ω 10 k Ω to 100 k Ω 100 k Ω to 1 M Ω 1 M Ω to 10 M Ω (in 1 M Ω steps) 100 M Ω	10 ppm + 25 $\mu\Omega$ 6.5 ppm 2.6 ppm 3.5 ppm 3.6 ppm 60 ppm		
	10 ⁷ Ω to 10 ⁸ Ω 10 ⁸ Ω to 10 ⁹ Ω 10 ⁹ Ω to 10 ¹⁰ Ω 10 ¹⁰ Ω to 10 ¹¹ Ω 10 ¹¹ Ω to 10 ¹² Ω	0.27 % 0.35 % 0.51 % 0.58 % 0.94 %	Minimum voltage is resistor value x10 ⁸ or 1 kV, whichever is the smaller.	
DC VOLTAGE	Standard cell values	0.88 μ V	This uncertainty can be realised with cells only if they have their own temperature-controlled enclosure of appropriate thermal stability; other cells suitable for oil immersion can be measured over the temperature range 14°C to 30°C, but with increased uncertainty.	
Specific Values	100 mV 1 V 1.018 V 10 V 10 V 100 V 1 kV	5.3 ppm 1.2 ppm 0.89 ppm 1.0 ppm 0.48 ppm 1.2 ppm 1.2 ppm	Electronic references Electronic references	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
DC VOLTAGE (continued)				Stevenage
Other Values	0 V to 1 V 1 V to 20 V 20 V to 200 V 200 V to 1000 V	3.5 ppm + 0.40 μ V 3.1 ppm + 1.2 μ V 6.2 ppm + 17 μ V 6.3 ppm + 120 μ V		
DC VOLTAGE RATIO	10^{-1} to unity 10^{-7} to 10^{-1}	10^{-7} of input + 0.50 μ V 10^{-8} to 10^{-7} of input + 0.50 μ V	Input voltage in the range 1 V to 100 V	
DC CURRENT				
Specific Values	100 μ A 1 mA 10 mA 100 mA 1 A 10 A	21 ppm 10 ppm 7.2 ppm 8.2 ppm 13 ppm 100 ppm		
Other Values	1 μ A to 300 mA 300 mA to 25 A	50 ppm 100 ppm		
DC POWER	1 μ W to 25 kW	The RSS summation of the relevant voltage and current uncertainties	Upper limits of voltage and current are 1 kV and 25 A respectively. Laboratory supplies and loads are not normally available over the full range.	
AC VOLTAGE				
Specific Values	1 V 40 Hz 1 kHz 30 kHz 50 kHz 100 kHz 200 kHz 500 kHz 1 MHz	27 ppm 27 ppm 28 ppm 31 ppm 34 ppm 67 ppm 240 ppm 520 ppm		
	10 V 40 Hz 1 kHz 30 kHz 50 kHz 100 kHz 200 kHz 500 kHz 1 MHz	26 ppm 26 ppm 27 ppm 29 ppm 29 ppm 65 ppm 240 ppm 430 ppm		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC VOLTAGE (continued) Specific Values	100 V 40 Hz 1 kHz 30 kHz 50 kHz 100 kHz	43 ppm 35 ppm 35 ppm 39 ppm 40 ppm		Stevenage
	700 V 50 kHz 100 kHz	170 ppm 230 ppm		
	1000 V 45 Hz 100 Hz 1 kHz 10 kHz 20 kHz 30 kHz	87 ppm 87 ppm 86 ppm 88 ppm 88 ppm 97 ppm		
Other values	0.9 mV to 2.7 mV 10 Hz to 100 Hz 100 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	0.033 % + 0.30 μ V 0.020 % + 0.30 μ V 0.047 % + 0.30 μ V 0.13 % + 0.30 μ V 0.32 % + 0.30 μ V		
	2.7 mV to 9 mV 10 Hz to 100 Hz 100 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	0.026 % + 0.30 μ V 0.016 % + 0.20 μ V 0.033 % + 0.20 μ V 0.10 % + 0.20 μ V 0.24 % + 0.40 μ V		
	9 mV to 27 mV 10 Hz to 100 Hz 100 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	0.019 % + 0.30 μ V 0.0093 % + 0.20 μ V 0.018 % + 0.20 μ V 0.054 % + 0.30 μ V 0.14 % + 0.40 μ V		
	27 mV to 90 mV 10 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	42 ppm + 0.50 μ V 96 ppm + 0.60 μ V 280 ppm + 0.40 μ V 720 ppm + 0.50 μ V		
	90 mV to 1.1 V 10 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	36 ppm + 1.7 μ V 67 ppm + 2.0 μ V 260 ppm + 1.4 μ V 720 ppm + 1.5 μ V		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC VOLTAGE (continued)				Stevenage
Other Values	1.1 V to 3.4 V 10 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	36 ppm + 5.7 μ V 66 ppm + 6.7 μ V 260 ppm + 5.3 μ V 710 ppm + 6.7 μ V		
	3.4 V to 11 V 10 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	36 ppm + 19 μ V 65 ppm + 22 μ V 260 ppm + 17 μ V 720 ppm + 22 μ V		
	11 V to 34 V 10 Hz to 30 kHz 30 kHz to 200 kHz 200 kHz to 500 kHz 500 kHz to 1 MHz	36 ppm + 57 μ V 65 ppm + 67 μ V 260 ppm + 53 μ V 710 ppm + 67 μ V		
	34 V to 110 V 10 Hz to 30 kHz 30 kHz to 200 kHz	37 ppm + 130 μ V 80 ppm + 120 μ V		
	110 V to 340 V 40 Hz to 20 kHz 20 kHz to 100 kHz	44 ppm + 1.4 mV 160 ppm + 4.5 mV		
	340 V to 1199.5 V 40 Hz to 20 kHz 20 kHz to 100 kHz	49 ppm + 4.4 mV 160 ppm + 15 mV	The maximum Volt-Hertz product is 7.5×10^7 .	
AC Voltage Waveform Analysis	3 μ V to 300 V 20 Hz to 76 kHz	5.0 % of FSD	15 ranges of 30 μ V to 300 V FSD in 3-10-30 sequence	
AC VOLTAGE RATIO	10^{-7} to unity 50 Hz to 1.6 kHz 10 kHz	1.0×10^{-7} of input 5.0×10^{-7} of input	Input voltage in the range 0.5 V to $(0.2 f_{Hz})$ V or 200 V, whichever is the smaller	
AC CURRENT	Up to 100 μ A 10 Hz to 5 kHz	0.026 %		
	Up to 1 mA 10 Hz to 5 kHz	0.015 %		
	1 mA to 10 mA 10 Hz to 5 kHz	0.0090 %		
	10 mA to 100 mA 10 Hz to 5 kHz	0.0090 %		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC CURRENT (continued)	100 mA to 1 A <i>10 Hz to 5 kHz</i>	0.010 %	Maximum voltage 1000 V Maximum current 25 A Measurement at other power factors can be undertaken, either leading or lagging, down to 0.1 power factor, but with increased uncertainties based on an uncertainty of phase angle of $\pm (0.40 + 0.05 f)$ degrees, where f is the test frequency in kHz.	Stevenage
	1 A to 10 A <i>10 Hz to 5 kHz</i>	0.017 %		
	200 mA to 25 A <i>30 Hz to 20 kHz</i>	0.070 %		
AC POWER at unity power factor	100 mW to 25 kW <i>45 Hz to 1 kHz</i>	0.060 %		
AC POWER FACTOR	0 to 0.5 <i>45 Hz to 1 kHz</i>	0.0080		
	0.5 to 0.9 <i>45 Hz to 1 kHz</i>	0.0080 to 0.0040		
	0.9 to 1.0 <i>45 Hz to 1 kHz</i>	0.0040 to 0.000030		
PHASE ANGLE	0° to 360° <i>20 Hz to 10 kHz</i>	0.010°	The uncertainties relate to the calibration of a phase meter of suitable resolution and stability, with equal input levels to each channel. Calibration of variable-phase generators can also be undertaken, with increased uncertainties. The uncertainties for variable-phase generators will be particularly dependent on the purity of the waveform from the generator. Phase calibration can also be undertaken for unequal levels, with increased uncertainties.	
	<i>10 kHz to 20 kHz</i>	0.020°		
	<i>20 kHz to 50 kHz</i>	0.050°		
	<i>50 kHz to 100 kHz</i>	0.090°		
	<i>100 kHz to 220 kHz</i>	0.20°		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
INDUCTANCE				Stevenage
Specific Values	<i>100 Hz:</i> 10 H	0.010 %	The ability to realise the stated uncertainties for inductance is particularly dependent on the electrical and physical characteristics of the inductor being calibrated	
	<i>1 kHz and 10 kHz:</i> 1 μ H 10 μ H 100 μ H, 1 mH and 10 mH	0.35 % 0.15 % 0.015 %		
	<i>1 kHz:</i> 100 mH and 1 H 10 H	0.015 % 0.025 %		
	<i>10 kHz:</i> 100 mH 1 H:	0.025 % 0.60 %		
Other Values	<i>100 Hz, 1 kHz and 10 kHz:</i> 1 μ H to 10 μ H 10 μ H to 100 μ H 100 μ H to 100 mH	0.40 % 0.20 % 0.10 %		
	<i>100 Hz and 1 kHz:</i> 100 mH to 10 H	0.10 %		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
CAPACITANCE				Stevenage
Specific Values	1 nF 1 kHz	7.5 ppm		
Other Values	10 pF to 100 pF 100 Hz to 10 kHz	0.010 %	Capacitance can be measured below 10 pF and from 1 μ F to 11 μ F, and also up to 100 kHz, with an increased uncertainty which varies in a complex manner with frequency and capacitance	
	100 pF to 0.1 μ F 50 Hz to 10 kHz	0.010 %		
	0.1 μ F to 1 μ F 50 Hz to 1 kHz 1 kHz to 10 kHz	0.010 % 0.030 %		
CAPACITANCE LOSS				
Dissipation factor ($\tan \delta$)	10^{-4} to unity 1 kHz	$0.10\% + 2.0 \times 10^{-5}$	For capacitance values ≤ 50 nF. Measurements may be made for greater capacitance values and other frequencies within the range 50 Hz to 10 kHz but the uncertainties may be increased.	
FREQUENCY				
Specific Values	1 MHz to 10 MHz in 1 MHz intervals	$4.5 \text{ in } 10^{12}$	For a comparison procedure over a 7 day period	
Other Values	10 Hz to 120 MHz 100 MHz to 20 GHz	$1.2 \text{ in } 10^6$ to $1.7 \text{ in } 10^9$ $1.0 \text{ in } 10^6$ to $1.8 \text{ in } 10^{11}$	For the calibration of signal sources and frequency meters	
	20 GHz to 26.5 GHz	$2.0 \text{ in } 10^9$		
	1 mHz to 18 GHz	$4.0 \text{ in } 10^{11}$	For frequency comparison using a synthesiser	
	18 GHz to 40 GHz	$1.0 \text{ in } 10^5$	For the calibration of resonant cavity wavemeters. Uncertainty dependent on instrument resolution.	
TIME INTERVAL				
	50 ns to 1 s 1 s to 100 s 100 s to 1000 s 1000 s to 10^4 s 10^4 s to 10^5 s	5 ns $1.2 \text{ in } 10^6$ to $3.7 \text{ in } 10^9$ $3.7 \text{ in } 10^9$ to $1.2 \text{ in } 10^9$ $1.2 \text{ in } 10^9$ to $5.8 \text{ in } 10^8$ $5.8 \text{ in } 10^8$ to $1.6 \text{ in } 10^9$		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code	
VOLTAGE REFLECTION COEFFICIENT For calibrations using autotesters and bridges in 50 Ω coaxial line	100 Hz to 1 GHz 0.0 to 0.1 0.1 to 0.6 0.6 to 0.9	0.010 to 0.020 0.020 to 0.040 0.040 to 0.070	14 mm 50 Ω coaxial system	Stevenage	
	10 MHz to 18 GHz 0.0 to 0.6 0.6 to 0.9	0.011 to 0.054 0.054 to 0.10	7 mm Type N and PC-7 connectors		
	0.0 to 0.6 10 MHz to 18 GHz 18 GHz to 26.5 GHz	0.015 to 0.043 0.017 to 0.060	3.5 mm WSMA and SMA connectors		
	0.6 to 0.9 10 MHz to 18 GHz 18 GHz to 26.5 GHz	0.043 to 0.078 0.060 to 0.11	3.5 mm WSMA and SMA connectors		
	0.0 to 0.6 10 MHz to 18 GHz 18 GHz to 26.5 GHz	0.018 to 0.047 0.025 to 0.060	3.5 mm PC-3.5 connectors		
	0.6 to 0.9 10 MHz to 18 GHz 18 GHz to 26.5 GHz	0.047 to 0.081 0.060 to 0.11	3.5 mm PC-3.5 connectors		
	0.0 to 0.6 10 MHz to 18 GHz 18 GHz to 26.5 GHz 26.5 GHz to 40 GHz	0.018 to 0.073 0.025 to 0.080 0.032 to 0.098	2.92 mm Type K connectors		
	0.6 to 0.9 10 MHz to 18 GHz 18 GHz to 26.5 GHz 26.5 GHz to 40 GHz	0.073 to 0.14 0.080 to 0.14 0.098 to 0.18	2.92 mm Type K connectors		
	For calibrations using a six-port reflection analyser	0.25 GHz to 18 GHz 0.0 to 0.2 0.2 to 1.0	0.0050 to 0.010 0.010 to 0.023		7 mm Type N and PC-7 connectors
		0.25 GHz to 26.5 GHz 0.0 to 0.2 0.2 to 1.0	0.013 0.013 to 0.080		3.5 mm PC-3.5 connectors
For calibrations using an autotester in 75 Ω coaxial line	10 MHz to 300 MHz 0.0 to 0.6 0.6 to 0.9	0.011 to 0.047 0.047 to 0.090	7 mm Type N connectors		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
VSWR For calibrations using slotted lines	<i>300 MHz to 8.5 GHz</i> 1.0 to 1.2 1.2 to 4.0 3.2 to 10	0.0050 to 0.011 0.023 to 0.11 0.090 to 0.30	14 mm 50 Ω coaxial system	Stevenage
	<i>2 GHz to 18 GHz</i> 1.0 to 1.2 1.2 to 4.0 3.2 to 10	0.060 to 0.070 0.080 to 0.26 0.26 to 2.1	50 Ω Type N coaxial system	
	<i>2.6 GHz to 3.95 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.40	Waveguide No 10 (WR284, RG48/U)	
	<i>3.95 GHz to 5.85 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.40	Waveguide No 12 (WR187, RG49/U)	
	<i>5.85 GHz to 8.2 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.40	Waveguide No 14 (WR137, RG50/U)	
	<i>7.05 GHz to 10 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.40	Waveguide No 15 (WR112, RG51/U)	
	<i>8.2 GHz to 12.4 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.040	Waveguide No 16 (WR90, RG51/U) with either circular clamped flanges or square bolted flanges	
	<i>12.4 GHz to 18 GHz</i> 1.0 to 1.2 1.2 to 10	0.010 0.010 to 0.040	Waveguide No 18 (WR62, RG91/U)	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
RF VOLTAGE				Stevenage
Specific Values	0.5 V, 1 V, 3 V, 5 V, 10 V, 20 V 1 MHz, 10 MHz and 20 MHz 30 MHz 40 MHz 50 MHz	0.090 % 0.070 % 0.070 % 0.15%	Sources of RF voltage may not be available for all combinations of voltage and frequency	
Other values	20 mV to 100 mV 10 kHz to 100 kHz 100 kHz to 1 MHz 1 MHz to 100 MHz 100 MHz to 1 GHz 100 MHz to 1.5 GHz	0.32 % 0.34 % 0.55 % 0.81 % 0.88 %	The measurements are of RF voltage developed across a perfectly matched 50 Ω coaxial line system. The uncertainties are for the measurement of the output of a signal generator or the calibration of an instrument for the measurement of RF voltage in such a coaxial line system. If the measurement of RF voltage is required at a specified plane in the coaxial line system, the uncertainties will be increased. The frequency response of the device can be given relative to any frequency between 10 kHz and 1 MHz. Sources of RF voltage may not be available for all combinations of voltage and frequency	
	100 mV to 1 V 10 kHz to 100 kHz 100 kHz to 1 MHz 1 MHz to 100 MHz 100 MHz to 1.5 GHz	0.40 % 0.43 % 0.61 % 1.0%		
	1 V to 10 V 10 kHz to 100 kHz 100 kHz to 1 MHz 1 MHz to 100 MHz 100 MHz to 1.5 GHz	0.46 % 0.50 % 0.65 % 1.0 %		
RF POWER	1 μ W to 3 mW 0.3 GHz to 12.4 GHz	6.0 %	Mismatch uncertainty less than 1.5%.	
	10 μ W to 3 mW 50 MHz to 200 MHz	(0.90 % to 0.70 %) + 0.10 μ W	50 Ω Type N or GPC-7 coaxial system	
	200 MHz to 1 GHz 1 GHz to 4 GHz	(1.1 % to 0.90 %) + 0.10 μ W (1.4 % to 1.2 %) + 0.10 μ W		
	3 mW to 300 mW 0.3 GHz to 1.0 GHz 1.0 GHz to 3.0 GHz 3.0 GHz to 6.0 GHz 6.0 GHz to 8.0 GHz 8.0 GHz to 12.4 GHz	1.7 % 2.0 % 3.3 % 3.6 % 4.0 %	50 Ω Type N coaxial system	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
RF POWER (continued)	10 mW to 300 mW 1 kHz to 50 MHz	0.36 %	50 Ω 14 mm coaxial system	Stevenage
	50 MHz to 100 MHz	0.48 %		
	100 MHz to 2 GHz	0.58 %	50 Ω Type N coaxial system	
	2 GHz to 6 GHz	0.63 %		
	300 mW to 15 W 1 kHz to 50 MHz	0.48 %	50 Ω Type N coaxial system	
	50 MHz to 1 GHz	0.64 %		
	15 W to 100 W 50 MHz to 1 GHz	0.74 %	Waveguide No 16 (WR90, RG52/U)	
0.1 mW to 10 mW 8.2 GHz to 12.4 GHz	3.0 %			
12.4 GHz to 17.0 GHz 18 GHz	3.0 % 4.0 %	Waveguide No 18 (WR62, RG62/U)		
9 kHz to 5 GHz + 20 dBm to - 50 dBm - 50 dBm to - 80 dBm - 80 dBm to - 127dBm	0.15 dB 0.20 dB 0.35 dB	For the calibration of Signal Sources, Spectrum Analysers Receivers and other similar devices. The uncertainties are for the measurements in 7mm coaxial lines fitted with type N connectors. If adaptors for other types of connector are used then these uncertainties will be increased. If the device being measured presents an imperfect match in either 50 Ω or 75 Ω coaxial line system the uncertainties will be increased. For 75 Ω measurements, the upper frequency limit is 1GHz. For EMC receivers the results may also be given in terms of dBμW or dBμV/MHz in a 50 Ω system.		
2 GHz to 18 GHz + 10 dBm to - 50 dBm - 50 dBm to - 80 dBm - 80 dBm to -100 dBm	0.15 dB 0.20 dB 0.30 dB			



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
<p>CALIBRATION FACTOR</p> <p>For power sensor calibration in 50 Ω coaxial lines at 1 mW (Other power levels can be used but the uncertainties may be increased.)</p>	<p>30 kHz 50 kHz 100 kHz 300 kHz, 500 kHz 1 MHz, 3 MHz and 5 MHz</p> <p>10 MHz, 30 MHz and 50 MHz 100 MHz, 300 MHz, 500 MHz and 1 GHz 2 GHz 3 GHz and 4 GHz 4.2 GHz and 5 GHz</p> <p>6 GHz to 12 GHz in 1 GHz steps 13 GHz to 17 GHz in 1 GHz steps 18 GHz</p> <p>18 GHz to 26.5 GHz in 0.5 GHz steps</p> <p>27 GHz to 40 GHz in 1 GHz steps</p>	<p>2.8 % 1.9 % 0.90 % 0.60 % 0.67 % 0.60 % 0.72 % 0.95 % 1.1 % 1.3 % 1.4 % 1.5 % 2.0 % to 3.1 % 3.1 % to 4.0 %</p>	<p>The uncertainties for calibration factor are for sensors with input voltage reflection coefficients not exceeding 0.02. Uncertainties will be increased for higher values.</p> <p>Connector types: 7 mm Type N 14 mm GR 900</p> <p>Connector types: 14 mm GR 900 7 mm Type N 7 mm PC-7 3.5 mm PC-3.5 2.92 mm Type K</p> <p>Connector types: 7 mm Type N 7 mm PC-7 3.5 mm PC-3.5 2.92 mm Type K</p> <p>Connector types: 3.5 mm PC-3.5 2.92 mm Type K</p> <p>2.92 mm Type K connector type</p>	<p>Stevenage</p>



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k=2$)	Remarks	Location Code
CALIBRATION FACTOR (continued) For high sensitivity power sensor calibration in 50 Ω coaxial lines at 1 μ W. (Other power levels can be used but the uncertainties may be increased)	10 MHz 30 MHz 50 MHz, 100 MHz, 300 MHz, 500 MHz and 1 GHz 2 GHz 3 GHz and 4 GHz 5 GHz 6 GHz and 7 GHz 9 GHz and 10 GHz 11 GHz 12 GHz and 13 GHz 14 GHz, 15 GHz, 16 GHz, 17 GHz and 18 GHz 18 GHz to 26.5 GHz in 0.5 GHz steps 27 GHz to 40 GHz in 1 GHz steps	1.2 % 0.87 % 0.80 % 0.90 % 1.1 % 1.2 % 1.3 % 1.9 % 2.0 % 1.9 % 2.0 % 2.7 % to 3.3 % 3.5 % to 6.0 %	Connector types: 7 mm Type N 3.5 mm PC-3.5 2.92 mm Type K Connector types: 3.5 mm PC-3.5, 2.92 mm Type K Connector type: 2.92 mm Type K	Stevenage
AMPLITUDE MODULATION Modulation Factor	0.05 to 0.50 0.50 to 0.70 0.70 to 0.95 0.05 to 0.50 0.50 to 0.70 0.70 to 0.95 0.20 to 0.80	0.10 % 0.20 % 0.30 % 0.10 % 0.20 % 0.30 % 0.40 %	Modulation generation in discrete steps with 10.7 MHz carrier frequency and 1.045 kHz modulation frequency Modulation generation with 10 MHz to 13 MHz carrier frequency range and 20 Hz to 100 kHz modulation frequency range Calibration of sources with 10 kHz to 1 GHz carrier frequency range and 30 Hz to 50 kHz modulation frequency range	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AMPLITUDE MODULATION (continued)				Stevenage
Modulation Factor	0 to 0.50 0.50 to 0.70 0.70 to 0.95	0.50 % 0.50 % 0.60 %	Calibration of sources with 50 kHz to 2.32 GHz carrier frequency range and 1 kHz modulation frequency.	
	0 to 0.95	2.5 %	Calibration of sources with 50 kHz to 5 MHz carrier frequency range and 30 Hz to 15 kHz modulation frequency range.	
	0 to 0.95	2.5 %	Calibration of sources with 5.5 MHz to 2.32 GHz carrier frequency range and 30 Hz to 50 kHz modulation frequency range.	
FREQUENCY MODULATION				
Frequency Deviation	249.8 Hz to 1024 kHz	0.30 %	Modulation generation in discrete steps with carrier frequencies from 10.7 MHz to 85.6 MHz and modulation frequency of 1.007 kHz. The uncertainty will depend on the carrier frequency.	
	0 to 500 kHz	0.15 %	Modulation generation with 80 kHz to 1050 MHz carrier frequency range and 20 Hz to 100 kHz modulation frequency range. The uncertainty will depend on the carrier frequency.	
	0 to 5 kHz 5 kHz to 50 kHz	0.50 % 0.40 %	Calibration of sources with 50 kHz to 5.5 MHz carrier frequency range and at 1 kHz modulation frequency. Measurements can be made at other modulation frequencies with increased uncertainties.	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
FREQUENCY MODULATION (continued)				Stevenage
Frequency Deviation	0 kHz to 5 kHz 5 kHz to 500 kHz	0.50 % 0.40 %	Calibration of sources with 5.5 MHz to 2.32 GHz carrier frequency range and at 1 kHz modulation frequency. Measurements can be made at other modulation frequencies with increased uncertainties.	
ATTENUATION	<i>DC and 50 Hz to 10 kHz</i> 0 dB to 20 dB 20 dB to 40 dB 40 dB to 60 dB 60 dB to 80 dB 80 dB to 90 dB 90 dB to 100 dB	0.00030 dB 0.00040 dB 0.0015 dB 0.010 dB 0.060 dB 0.10 dB		
	<i>10 kHz to 100 MHz</i> 0 dB to 10 dB 10 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB 40 dB to 50 dB 50 dB to 60 dB 60 dB to 70 dB 70 dB to 80 dB 80 dB to 90 dB 90 dB to 100 dB	0.0070 dB 0.015 dB 0.020 dB 0.025 dB 0.030 dB 0.035 dB 0.060 dB 0.060 dB 0.20 dB 0.50 dB		
	<i>30 MHz</i> 0 dB to 10 dB 10 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB 40 dB to 50 dB 50 dB to 60 dB 60 dB to 70 dB 70 dB to 80 dB 80 dB to 90 dB 90 dB to 100 dB	0.0040 dB 0.0040 dB 0.0070 dB 0.0070 dB 0.0070 dB 0.010 dB 0.010 dB 0.015 dB 0.016 dB 0.030 dB	The uncertainties are for the measurement of increments of a variable attenuator. The measurement of fixed attenuators involves considerations of connector repeatability and mismatch errors and these uncertainties may be increased for the measurement of such devices.	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
ATTENUATION (continued)	50 MHz to 5.4 GHz 0 dB to 20 dB 20 dB to 40 dB 40 dB to 60 dB 60 dB to 70 dB 70 dB to 80 dB 80 dB to 90 dB 90 dB to 100 dB	0.0070 dB 0.0090 dB 0.010 dB 0.012 dB 0.016 dB 0.017 dB 0.030 dB	The uncertainties are for the measurement of increments of a variable attenuator. The measurement of fixed attenuators involves considerations of connector repeatability and mismatch errors and these uncertainties may be increased for the measurement of such devices.	Stevenage
	50 MHz to 8.5 GHz 0 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB 40 dB to 50 dB	0.020 dB 0.040 dB 0.050 dB 0.060 dB	14 mm coaxial line	
	50 MHz to 18 GHz 0 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB 40 dB to 50 dB	0.020 dB 0.040 dB 0.050 dB 0.060 dB	7 mm coaxial line	
	2.6 GHz to 18 GHz 0 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB 40 dB to 50 dB	0.020 dB 0.040 dB 0.050 dB 0.060 dB	Waveguide Nos 10, 12, 14, 15, 16 and 18	
	26.5 GHz to 40 GHz 0 dB to 20 dB 20 dB to 30 dB 30 dB to 40 dB	0.040 dB 0.050 dB 0.060 dB	Waveguide No 22	
SPECTRAL INTENSITY	9 kHz to 1 GHz	0.79 dB		
MEASUREMENT STANDARDS LABORATORY, DONIBRISTLE				
DC RESISTANCE Measurement	0 Ω to 10 Ω 10 Ω to 100 Ω 100 Ω to 1 k Ω 1 k Ω to 10 k Ω 10 k Ω to 100 k Ω 100 k Ω to 1 M Ω 1 M Ω to 10 M Ω 10 M Ω to 100 M Ω	23 ppm + 70 $\mu\Omega$ 17 ppm + 600 $\mu\Omega$ 15 ppm 16 ppm 15 ppm 37 ppm 150 ppm 850 ppm		Donibristle



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
DC RESISTANCE (continued)				Donibristle
Generation	0 Ω 1 Ω 1.9 Ω 10 Ω 19 Ω 100 Ω 190 Ω 1 k Ω 1.9 k Ω 10 k Ω 19 k Ω 100 k Ω 190 k Ω 1 M Ω 1.9 M Ω 10 M Ω 19 M Ω 100 M Ω	50 $\mu\Omega$ 110 ppm 110 ppm 27 ppm 27 ppm 12 ppm 12 ppm 10 ppm 10 ppm 10 ppm 10 ppm 13 ppm 13 ppm 23 ppm 24 ppm 46 ppm 55 ppm 120 ppm		
DC VOLTAGE				
Measurement	0 mV to 100 mV 100 mV to 1 V 1 V to 10 V 10 V to 100 V 100 V to 1000 V	6.5 ppm + 1.4 μ V 5.6 ppm + 1.2 μ V 4.9 ppm + 1.3 μ V 8.5 ppm 17 ppm		
Generation	0 mV to 220 mV 220 mV to 2.2 V 2.2 V to 11 V 11 V to 22 V 22 V to 220 V 220 V to 1100 V	9.0 ppm + 0.50 μ V 6.0 ppm + 0.80 μ V 4.0 ppm + 3.0 μ V 4.0 ppm + 5.0 μ V 6.0 ppm + 50 μ V 8.0 ppm + 500 μ V		
DC CURRENT				
Measurement	0 μ A to 100 μ A 100 μ A to 1 mA 1 mA to 10 mA 10 mA to 100 mA 100 mA to 1 A	60 ppm + 5.0 nA 35 ppm + 7.0 nA 35 ppm + 60 nA 85 ppm 230 ppm		
Generation	0 μ A to 220 μ A 220 μ A to 2.2 mA 2.2 mA to 22 mA 22 mA to 220 mA 220 mA to 2.2 A 2.2 A to 11 A	50 ppm + 7.0 nA 40 ppm + 8.0 nA 40 ppm + 50 nA 50 ppm + 0.80 μ A 90 ppm + 15 μ A 350 ppm + 360 μ A	There are additional uncertainties of 200 ^f ppm for current levels between 100 mA and 1 A and 10 ^f ppm between 1 A and 11 A	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty (k = 2)	Remarks	Location Code
AC VOLTAGE				Donibristle
Measurement	1 mV to 10 mV 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 100kHz	0.050 % + 2.7 μ V 0.070 % + 2.7 μ V 0.88 % + 2.7 μ V		
	10 mV to 100 mV 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 100kHz	0.018 % + 2.3 μ V 0.028 % + 2.3 μ V 0.18 % + 2.3 μ V		
	100 mV to 1 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 100kHz	0.018 % + 23 μ V 0.028 % + 23 μ V 0.18 % + 23 μ V		
	1 V to 10 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 100kHz	0.018 % + 230 μ V 0.028 % + 230 μ V 0.18 % + 230 μ V		
	10 V to 100 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 100kHz	0.040 % + 2.3 mV 0.040 % + 2.3 mV 0.24 % + 2.3 mV		
	100V to 700 V 40 Hz to 1 kHz 1 kHz to 20 kHz	0.080 % + 23 mV 0.11 % + 23 mV		
Generation	1 mV to 2.2 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz	300 ppm + 5.0 μ V 120 ppm + 5.0 μ V 100 ppm + 5.0 μ V 250 ppm + 5.0 μ V 600 ppm + 6.0 μ V 0.13% + 12 μ V 0.17% + 25 μ V 0.34% + 25 μ V		
	2.2 mV to 22 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz	300 ppm + 5.0 μ V 120 ppm + 5.0 μ V 100 ppm + 5.0 μ V 250 ppm + 5.0 μ V 600 ppm + 6.0 μ V 0.13% + 12 μ V 0.17% + 25 μ V 0.34% + 25 μ V		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC VOLTAGE (continued) Generation	22 mV to 220 mV 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz 220 mV to 2.2 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz 2.2 V to 22 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz 22 V to 220 V 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 20 kHz 20 kHz to 50 kHz 50 kHz to 100 kHz 100 kHz to 300 kHz 300 kHz to 500 kHz 500 kHz to 1 MHz 220 V to 250 V 15 Hz to 50 Hz 220 V to 1100 V 40 Hz to 1 kHz 1 kHz to 20 kHz 20 kHz to 30 kHz 220 V to 750 V 30 kHz to 50 kHz 50 kHz to 100 kHz	300 ppm + 15 μ V 120 ppm + 8.0 μ V 100 ppm + 8.0 μ V 250 ppm + 8.0 μ V 600 ppm + 20 μ V 0.11 % + 25 μ V 0.17 % + 30 μ V 0.33 % + 60 μ V 300 ppm + 50 μ V 110 ppm + 20 μ V 52 ppm + 10 μ V 90 ppm + 12 μ V 130 ppm + 40 μ V 500 ppm + 100 μ V 0.11 % + 250 μ V 0.20 % + 400 μ V 300 ppm + 500 μ V 110 ppm + 200 μ V 52 ppm + 70 μ V 90 ppm + 120 μ V 120 ppm + 250 μ V 330 ppm + 800 μ V 0.12 % + 2.5 mV 0.18 % + 4.0 mV 300 ppm + 5.0 mV 110 ppm + 2.0 mV 65 ppm + 0.70 mV 100 ppm + 1.2 mV 180 ppm + 3.0 mV 0.11 % + 20 mV 0.54 % + 50 mV 1.0 % + 100 mV 360 ppm + 20 mV 90 ppm + 4.0 mV 170 ppm + 6.0 mV 600 ppm + 11 mV 600 ppm + 11 mV 0.23 % + 45 mV		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC CURRENT				Donibristle
Measurement	0 μ A to 100 μ A 45 Hz to 1 kHz	0.11 % + 35 nA		
	100 μ A to 1 mA 45 Hz to 100 Hz 100 Hz to 5 kHz	0.11 % + 0.30 μ A 0.060 % + 0.30 μ A		
	1 mA to 10 mA 45 Hz to 100 Hz 100 Hz to 5 kHz	0.11 % + 2.3 μ A 0.060 % + 2.3 μ A		
	10 mA to 100 mA 45 Hz to 100 Hz 100 Hz to 5 kHz	0.11 % + 23 μ A 0.060 % + 23 μ A		
	100 mA to 1 A 45 Hz to 100 Hz 100 Hz to 5 kHz	0.19 % + 0.23 mA 0.21 % + 0.23 mA		
Generation	Up to 220 μ A 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	300 ppm + 20 nA 200 ppm + 12 nA 140 ppm + 10 nA 350 ppm + 15 nA 0.13% + 80 nA		
	220 μ A to 2.2 mA 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	300 ppm + 50 nA 200 ppm + 40 nA 140 ppm + 40 nA 240 ppm + 130 nA 0.13% + 800 nA		
	2.2 mA to 22 mA 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	300 ppm + 500 nA 200 ppm + 400 nA 140 ppm + 400 nA 240 ppm + 700 nA 0.13% + 6.0 μ A		
	22 mA to 220 mA 10 Hz to 20 Hz 20 Hz to 40 Hz 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	300 ppm + 5.0 μ A 200 ppm + 4.0 μ A 140 ppm + 3.0 μ A 240 ppm + 4.0 μ A 0.13% + 12 μ A		
	220 mA to 2.2 A 20 Hz to 1kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	320 ppm + 40 μ A 500 ppm + 100 μ A 0.80% + 200 μ A		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AC CURRENT (continued)				Donibristle
Generation	2.2 A to 11 A 40 Hz to 1 kHz 1 kHz to 5 kHz 5 kHz to 10 kHz	460 ppm + 170 μ A 950 ppm + 380 μ A 0.36% + 750 μ A		
PORTABLE APPLIANCE TESTER CALIBRATION				
AC Resistance at 50 Hz	0.1 Ω to 2 Ω 0.1 Ω to 1 Ω 2 Ω	0.020 Ω 0.020 Ω 0.030 Ω	Test current 8 amperes Test current 25 amperes Test current 25 amperes	
AC Current at 50 Hz	8 A to 30 A	2.0 A		
CAPACITANCE Measurement	0 μ F to 10 μ F at 1 kHz 10 pF to 1 μ F at 10 kHz	0.060 % + 0.020 pF 0.25% + 1.0 pF		
INDUCTANCE Measurement	1 μ H to 1 H at 1 kHz 10 μ H to 100 mH at 10 kHz	0.12% + 0.10 μ H 0.25% + 0.10 μ H		
FREQUENCY				
Generation	1 MHz, 5 MHz and 10 MHz	8.0 in 10^{11}		
Measurement	1 MHz, 5 MHz and 10 MHz 10 Hz to 100 Hz 100 Hz to 1 kHz 1 kHz to 100 MHz 100 MHz to 26.5 GHz	1.0 in 10^{10} 1.2 in 10^6 to 6.0 in 10^6 6.0 in 10^8 to 3.7 in 10^9 3.7 in 10^9 to 1.2 in 10^9 1.0 in 10^9		
VOLTAGE REFLECTION COEFFICIENT	0.3 MHz to 8 GHz 0 to 0.2	0.010	7 mm 50 Ω coaxial line fitted with GPC 7 or Type N connectors. The measurement uncertainty may increase if the device requires the use of a test port cable.	
	0.2 to 0.6 0.6 to 0.8	0.015 0.020		
	8 GHz to 18 GHz 0 to 0.2 0.2 to 0.6 0.6 to 0.8	0.020 0.020 0.020		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
REFLECTION PHASE	0° to 180° for reflection measurements with the following loss: 0 dB to 5 dB 5 dB to 10 dB 10 dB to 20 dB 20 dB to 25 dB 25 dB to 30 dB 30 dB to 35 dB 35 dB or greater	5.0° 10.0° 20.0° 40.0° 70.0° 120.0° 180.0°	7 mm 50 Ω coaxial line devices fitted with GPC 7 or Type N connectors over a frequency range of 0.5 GHz to 18 GHz.	Donibristle
RF POWER	0.8 mW to 1.2 mW 50 MHz	0.50 %	For the calibration of 50 Ω power meter reference sources with output VSWR not exceeding 1.05:1	
Calibration Factor			The uncertainties shown for calibration factor are based on a device with a VSWR of 1.03:1 or less. If the measured reflection coefficient is significantly greater than this, the calibration factor uncertainties will be increased accordingly.	
50 Ω coaxial power sensors	Nominal level 1 mW 0.1 MHz to 0.3 MHz 0.3 MHz to 0.1 GHz 0.1 GHz to 2.0 GHz 2.0 GHz to 8.0 GHz 8.0 GHz to 18.0 GHz	1.3 % 1.1 % 1.0 % 1.3 % 1.7 %		
50 Ω coaxial power sensors	Nominal level 1 μW 0.1 GHz to 2.0 GHz 2.0 GHz to 8.0 GHz 8.0 GHz to 18.0 GHz	2.1 % 2.3 % 2.6 %		
50 Ω coaxial thermistor mounts	Nominal level 1 mW 0.05 GHz to 2.0 GHz 2.0 GHz to 8.0 GHz 8.0 GHz to 18.0 GHz	1.7 % 1.9 % 2.1 %		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
RF POWER (continued)				Donibristle
RF Power Measurement	+ 20 dBm to - 25 dBm <i>100 kHz to 300 kHz</i> <i>300 kHz to 1 MHz</i> <i>1 MHz to 50 MHz</i> <i>50 MHz to 2 GHz</i> <i>2 GHz to 12 GHz</i> <i>12 GHz to 18 GHz</i> <i>18 GHz to 26.5 GHz</i>	0.55 dB 0.26 dB 0.18 dB 0.18 dB 0.25 dB 0.34 dB 0.31 dB	50 Ω coaxial line systems fitted with Type N connectors. The uncertainty is for devices with output VRC not exceeding 0.2.	
	- 25 dBm to - 50 dBm <i>50 MHz to 2 GHz</i> <i>2 GHz to 12 GHz</i> <i>12 GHz to 18 GHz</i>	0.22 dB 0.37 dB 0.40 dB		
	- 50 dBm to - 60 dBm <i>50 MHz to 2 GHz</i> <i>2 GHz to 12 GHz</i> <i>12 GHz to 18 GHz</i>	0.24 dB 0.38 dB 0.41 dB		
	- 60 dBm to - 65 dBm <i>50 MHz to 2 GHz</i> <i>2 GHz to 12 GHz</i> <i>12 GHz to 18 GHz</i>	0.38 dB 0.48 dB 0.50 dB		
RF Power Generation	0 dBm to - 67 dBm <i>100 kHz to 4.2 GHz</i> <i>4.2 GHz to 18 GHz</i>	 0.15 dB 0.22 dB	50 Ω coaxial line systems fitted with precision Type N connectors. Devices fitted with non-precision Type N connectors can be calibrated but with increased uncertainties.	
	- 67 dBm to - 127 dBm <i>100 kHz to 4.2 GHz</i> <i>4.2 GHz to 18 GHz</i>	0.24 dB 0.37 dB		
SPECTRAL INTENSITY	<i>0.1 MHz to 1 GHz</i> 80 dB μ V/MHz to 100 dB μ V/MHz	0.90 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
AMPLITUDE MODULATION	Carrier 150 kHz to 10 MHz Modulation 20 Hz to 50 Hz		The uncertainties for amplitude modulation are presented in terms of modulation depth.	Donibristle
	5 % to 50 % 50 % to 95 %	3.0 % 3.1 %		
	Carrier 150 kHz to 10 MHz Modulation 50 Hz to 10 kHz			
	5 % to 50 % 50 % to 95 %	2.0 % 2.1 %		
	Carrier 10 MHz to 1.3 GHz Modulation 50 Hz to 90 Hz			
	5 % to 50 % 50 % to 95 %	1.1 % 1.3 %		
	Carrier 10 MHz to 1.3 GHz Modulation 90 Hz to 10 kHz			
	20 % to 50 % 50 % to 80 %	0.53 % 0.85 %		
	Carrier 10 MHz to 1.3 GHz Modulation 10 kHz to 50 kHz			
	5 % to 50 % 50 % to 95 %	1.1 % 1.3 %		
	Carrier 10 MHz to 1.3 GHz Modulation 50 kHz to 100 kHz			
	5 % to 50 % 50 % to 95 %	3.0 % 3.1 %		
	Carrier 10 MHz to 1.3 GHz Modulation 90 Hz to 10 kHz			
80 % to 95 %	1.3 %			
Carrier 10 MHz to 1.3 GHz Modulation 20 Hz to 50 Hz				
5 % to 20 %	3.0 %			



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
OPERATIONS LABORATORY, STEVENAGE, AND CUSTOMERS' SITES				
RACAL 6400 PRODUCT SERIES			All measurements are made in a 50Ω coaxial system.	Stevenage and customers' sites
ABSOLUTE RF POWER MEASUREMENTS				
Transmit output power, simplex port	<i>From 800 MHz to 2.2 GHz:</i> - 40 dBm to - 46 dBm - 46 dBm to - 92 dBm - 92 dBm to - 98 dBm	0.20 dB 0.54 dB 0.25 dB		
Transmit output power, duplex port	<i>From 800 MHz to 2.2 GHz:</i> - 20 dBm to - 115 dBm	0.71 dB		
Receive power measurement accuracy	<i>From 800 MHz to 2.2 GHz:</i> - 3 dBm to + 3 dBm	0.37 dB		
Reference output power	<i>At 10 MHz nominal:</i> + 6 dBm to + 11 dBm	0.12 dB		
RELATIVE RF POWER MEASUREMENTS				
Transmit spectral purity, in-channel	<i>Carrier 960 MHz to 2200 MHz Level 0 dBc to - 70 dBc</i>	0.41 dB		
Transmit spectral purity, in-band	<i>Carrier 960 MHz to 2200 MHz Level 0 dBc to - 70 dBc</i>	0.47 dB		
Transmit spectral purity, out-of-band	<i>Carrier 960 MHz to 2200 MHz Spurious 12 MHz to 6.6 GHz Level 0 dBc to - 70 dBc</i>	1.9 dB		
Reference output harmonics	<i>Fundamental: 10 MHz Harmonics: 20 MHz to 50 MHz</i> 0 dBc to - 70 dBc	0.47 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Reference output spurious signals	<i>Fundamental: 10 MHz</i> <i>Spurious: 250 kHz to 12 MHz</i>	0.68 dB		Stevenage and customers' sites
VSWR	<i>From 300 kHz to 3 GHz:</i> 1.0:1 to 1.1:1 1.2:1 to 1.3:1 1.3:1 to 1.4:1 1.4:1 to 1.5:1 1.5:1 to 1.6:1 1.6:1 to 1.7:1 1.7:1 to 1.8:1 1.8:1 to 1.9:1 1.9:1 to 2:1 2:1 to 2.5:1	Connector type <i>N TNC SMA</i> 0.020 0.15 0.15 0.020 0.17 0.17 0.030 0.20 0.20 0.030 0.22 0.22 0.030 0.24 0.24 0.040 0.26 0.26 0.040 0.28 0.28 0.050 0.30 0.30 0.050 0.33 0.33 0.090 0.47 0.47		
FREQUENCY				
Transmit output frequency accuracy	800 MHz to 2200 MHz	0.11 Hz to 0.26 Hz		
Internal standard frequency accuracy	10 MHz nominal	1.3 mHz		
RACAL 6100 PRODUCT SERIES <i>All 6100 series products are covered, with the exception of Models 6103A, 6103B and 6114</i>			All measurements are made in a 50Ω coaxial system.	
Models 6103 and 6104, including derivatives				
Absolute RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			
RF In/Out Port High Output Level Calibration	- 39 dBm to - 51 dBm	0.11 dB		
Aux RF In/Out Port - High Output Level Calibration	- 27 dBm to - 29 dBm	+ 0.48 dB / - 0.54 dB		
RX Tests Signal Generator Characterisation	- 0.75 dBm to - 1.25 dBm	+ 0.15 dB / - 0.16 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Relative RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			Stevenage and customers' sites
RF In/Out Port TX Full Output Calibration	0 dBc to - 83 dBc	+ 0.45 dB / - 0.50 dB		
Chassis Aux to main difference Calibration Factor	- 20 dBc to - 30 dBc	+ 0.43 dB / - 0.47 dB		
RX Calibration Front BBP	+ 1 dBc to - 1 dBc	+ 0.20 dB / - 0.21 dB		
RX Calibration Rear BBP (6103G only)	+ 4 dBc to - 4 dBc	0.0060 dB		
Frequency Accuracy Measurements				
Method 1	10 MHz	0.0012 Hz		
Method 2	10 MHz or 13 MHz	0.006 Hz		
Model 6113, including derivatives				
Absolute RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			
RF In/Duplex Port - High Output Level Calibration	- 39 dBm to - 51 dBm - 51 dBm to - 58 dBm	0.10 dB 0.11 dB		
RF Out Port - High Output Level Calibration	- 39 dBm to - 51 dBm	0.18 dB		
RX Tests - Signal Generator Characterisation	- 0.75 dBm to - 1.25 dBm	+ 0.15 dB / - 0.16 dB		
BOSS RF In/Duplex Port - High Output Level calibration (6113 with BOSS)	- 18.5 dBm to - 41.5 dBm	+ 0.46 dB / - 0.51 dB		
BOSS RF Out Port - High Output Level Calibration (6113 with BOSS)	- 18.5 dBm to - 41.5 dBm	+ 0.46 dB / - 0.51 dB		
BOSS Signal Generator Optimisation Characterisation	+ 0.25 dBm to - 50.25 dBm	+ 0.18 dB / - 0.19 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Relative RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			Stevenage and customers' sites
RF In/Duplex Port - Full Output Level Calibration	0 dBc to - 65.5 dBc	+ 0.17 dB / - 0.18 dB		
RF In/Duplex Port - Full Output Level Calibration (High Output Level units only)	0 dBc to - 82.5 dBc	+ 0.45 dB / - 0.50 dB		
RF Out Port Full Output Level Calibration	0 dBc to - 82.5 dBc	+ 0.45 dB / - 0.50 dB		
RX Calibration Front BBP	+ 1 dBc to - 1 dBc	0.018 dB		
RX Calibration Rear BBP (6113G only)	+ 4 dBc to - 4 dBc	0.006 dB		
BOSS RF In//Duplex Port Full Output Level Calibration (6113 BOSS)	0 dBc to - 63 dBc	0.15 dB		
BOSS RF Out Port Full Output Level Calibration (6113 BOSS)	0 dBc to - 63 dBc	0.15 dB		
BOSS RX Calibration	+ 1 dBc to - 1 dBc	+ 0.64 dB / - 0.75 dB		
Frequency Accuracy Measurements				
Method 1	10 MHz	0.0012 Hz		
Method 2	10 MHz or 13 MHz	0.0060 Hz		
CALIBRATION OF RACAL RF MULTIFUNCTION UNITS (RFMU)			All measurements are made in a 50Ω coaxial system.	
Absolute RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			
Tests 7.3.8 / 7.3.9, Signal Generator characterisation	- 6 dBm to - 14 dBm	+ 0.18 dB / - 0.19 dB		
Test 7.3.11, Signal Generator characterisation	- 6 dBm to - 34 dBm	+ 0.22 dB / - 0.23 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Relative RF Power Measurements	<i>Frequency range 800 MHz to 2200 MHz</i>			Stevenage and customers' sites
MS port to Test Set RF ports insertion loss	- 11.2 dBc to + 17 dBc	+ 0.33 dB / - 0.35 dB		
MS port to Serving cell port insertion loss	- 11.9 dBc to - 18 dBc	+ 0.33 dB / - 0.35 dB		
Serving cell ports to Test set RF ports insertion loss	+ 9 dBc to - 5 dBc	+ 0.34 dB / - 0.37 dB		
VSWR	<i>From 300 kHz to 3 GHz:</i>	Connector type <i>N TNC SMA</i>		
	1.0:1 to 1.1:1	0.020 0.020 0.020		
	1.1:1 to 1.2:1	0.020 0.020 0.020		
	1.2:1 to 1.3:1	0.020 0.030 0.030		
	1.3:1 to 1.4:1	0.020 0.030 0.030		
	1.4:1 to 1.5:1	0.020 0.030 0.030		
	1.5:1 to 1.6:1	0.030 0.030 0.030		
	1.6:1 to 1.7:1	0.030 0.040 0.040		
	1.7:1 to 1.8:1	0.030 0.040 0.040		
	1.8:1 to 1.9:1	0.030 0.040 0.040		
	1.9:1 to 2.0:1	0.040 0.050 0.050		
	2.0:1 to 2.5:1	0.050 0.060 0.060		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
BONDOUFLE LABORATORY				
FREQUENCY				Bondoufle
Measurement	1 MHz, 2 MHz, 2.5 MHz, 5 MHz and 10 MHz	1.0 in 10^{10}		
	10 kHz to 20 GHz	1.0 in $10^{10} + 0.10$ Hz		
Generation	10 kHz to 20 GHz	1.0 in 10^{10}		
RACAL 6100 PRODUCT SERIES <i>All 6100 series products are covered, with the exception of Models 6103A, 6103B and 6114</i>			All measurements are made in a 50Ω coaxial system.	
VSWR	<i>From 25MHz to 3 GHz:</i>	Connector type N SMA TNC		
	1.0:1 to 1.1:1	0.020 0.020 0.020		
	1.1:1 to 1.2:1	0.020 0.030 0.030		
	1.2:1 to 1.3:1	0.030 0.030 0.030		
	1.3:1 to 1.4:1	0.040 0.040 0.040		
	1.4:1 to 1.5:1	0.040 0.050 0.050		
	1.5:1 to 1.6:1	0.050 0.050 0.050		
	1.6:1 to 1.7:1	0.060 0.060 0.060		
	1.7:1 to 1.8:1	0.060 0.070 0.070		
	1.8:1 to 1.9:1	0.070 0.080 0.080		
	1.9:1 to 2:1	0.080 0.090 0.090		
	2:1 to 2.5:1	0.15 0.15 0.15		
FREQUENCY				
Transmit output frequency accuracy	800 MHz to 2.2 GHz	0.11 Hz to 0.26 Hz		
Internal standard frequency accuracy	10 MHz nominal	0.0013 Hz		
<i>Models 6103 and 6104, including derivatives</i>				
Absolute RF Power Measurements	<i>Frequency range 800 MHz to 2.2 GHz</i>			
RF In/Out Port High Output Level Calibration	- 39 dBm to - 51 dBm	0.11 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Aux RF In/Out Port - High Output Level Calibration	- 27 dBm to - 29 dBm	+ 0.48 dB / - 0.54 dB		Bondoufle
RX Tests Signal Generator Characterisation	- 0.75 dBm to - 1.25 dBm	+ 0.15 dB / - 0.16 dB		
Relative RF Power Measurements	<i>Frequency range 800 MHz to 2.2 GHz</i>			
RF In/Out Port TX Full Output Calibration	0 dBc to - 83 dBc	+ 0.45 dB / - 0.50 dB		
Chassis Aux to main difference Calibration Factor	- 20 dBc to - 30 dBc	+ 0.43 dB / - 0.47 dB		
RX Calibration Front BBP	+ 1 dBc to - 1 dBc	+ 0.20 dB / - 0.21 dB		
RX Calibration Rear BBP (6103G only)	+ 4 dBc to - 4 dBc	0.0060 dB		
Frequency Accuracy Measurements				
Method 1	10 MHz	0.0012 Hz		
Method 2	10 MHz or 13 MHz	0.006 Hz		
<i>Model 6113, including derivatives</i>				
Absolute RF Power Measurements	<i>Frequency range 800 MHz to 2.2 GHz</i>			
RF In/Duplex Port - High Output Level Calibration	- 39 dBm to - 51 dBm - 51 dBm to - 58 dBm	0.10 dB 0.11 dB		
RF Out Port - High Output Level Calibration	- 39 dBm to - 51 dBm	0.18 dB		
RX Tests - Signal Generator Characterisation	- 0.75 dBm to - 1.25 dBm	+0.15 dB / - 0.16 dB		
BOSS RF In/Duplex Port - High Output Level calibration (6113 with BOSS)	- 18.5 dBm to - 41.5 dBm	+0.46 dB / - 0.51 dB		
BOSS RF Out Port - High Output Level Calibration (6113 with BOSS)	- 18.5 dBm to - 41.5 dBm	+0.46 dB / - 0.51 dB		
BOSS Signal Generator Optimisation Characterisation	+ 0.25 dBm to - 50.25 dBm	+0.18 dB / - 0.19 dB		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k = 2$)	Remarks	Location Code
Relative RF Power Measurements	<i>Frequency range 800 MHz to 2.2 GHz</i>			Bondoufle
RF In/Duplex Port - Full Output Level Calibration	0 dBc to - 65.5 dBc	+ 0.17 dB / - 0.18 dB		
RF In/Duplex Port - Full Output Level Calibration (High Output Level units only)	0 dBc to - 82.5 dBc	+ 0.45 dB / - 0.50 dB		
RF Out Port Full Output Level Calibration	0 dBc to - 82.5 dBc	+ 0.45 dB / - 0.50 dB		
RX Calibration Front BBP	+1 dBc to - 1 dBc	0.018 dB		
RX Calibration Rear BBP (6113G only)	+ 4 dBc to - 4 dBc	0.006 dB		
BOSS RF In//Duplex Port Full Output Level Calibration (6113 BOSS)	0 dBc to - 63 dBc	0.15 dB		
BOSS RF Out Port Full Output Level Calibration (6113 BOSS)	0 dBc to - 63 dBc	0.15 dB		
BOSS RX Calibration	+ 1 dBc to - 1 dBc	+ 0.64 dB / - 0.75 dB		
Frequency Accuracy Measurements				
Method 1	10 MHz	0.0012 Hz		
Method 2	10 MHz or 13 MHz	0.006 Hz		



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty ($k=2$)	Remarks	Location Code
MECHANICAL METROLOGY LABORATORY, STEVENAGE				
LENGTH	RANGE IN MILLIMETRES AND UNCERTAINTY IN MICROMETRES, UNLESS OTHERWISE STATED			Stevenage
Plain plug gauges (parallel) cylindrical setting standards and rollers	0 to 100 diameter	0.80 on diameter		
Plain ring gauges (parallel) and setting standards	2 to 50 diameter 50 to 100 diameter	1.1 on diameter 1.7 on diameter		
Parallels	As BS 906:Parts 1 & 2:1972 up to 50 x 100 x 450	Dependant on size and grade From 1.5 up to 5.0		
ANGLE				
Angle plates and box angle plates	As BS 5535:1978	<i>Squareness:</i> 3.0 + (1.0 per 100 mm) <i>Parallelism:</i> 1.0 + (1.0 per 100 mm)	The uncertainty quoted is for the departure from squareness, the distance separating the two parallel planes that just enclose the surface under consideration.	



0006
Accredited to
ISO/IEC 17025:2005

Schedule of Accreditation
issued by
United Kingdom Accreditation Service
21 - 47 High Street, Feltham, Middlesex, TW13 4UN, UK

Aeroflex Test Solutions Limited
Issue No: 016 Issue date: 4 January 2011

Calibration performed by the Organisation at the locations specified

Measured Quantity Instrument or Gauge	Range	Calibration and Measurement Capability (CMC) Expressed as an Expanded Uncertainty (<i>k</i> = 2)	Remarks	Location Code
MEASURING INSTRUMENTS				Stevenage
Micrometers				
External Internal Depth	As BS 870:1950 and above As BS 959:1959 As BS 6468:1984	<i>Heads:</i> 2.0 between any two points. <i>Setting and Extension rods up to 300:</i> 1.0 + (5.0 x length in m)		
Micrometer Heads	As BS 1734:1951	1.0		
Vernier caliper, height and depth gauges	As BS 887:1982 BS 1643:1983 and BS 6365:1983	Overall performance: 10 + (30 x length in m)		
Dial gauges and dial test indicators	As BS 907:1965 and BS 2795:1981	1.2		
Bore micrometers (three point)	Up to 150 diameter	5.0		
--- END ---				