



# Measurement Capability



Cert No. FS647



Calibration 0006

IFR's extensive capability covers a wide range of instruments, making IFR the supplier of choice for companies requiring a single source for their test equipment management requirements. The list includes:

■ Oscilloscopes	Over 650 types
■ Digital multimeters	Over 500 types
■ Power supplies	Over 400 types
■ Attenuators	Over 400 types
■ Signal generators	Over 250 types
■ Spectrum analyzers	Over 200 types
■ Counter timers	Over 200 types
■ Insulation testers	Over 100 types
■ Power sensors	Over 100 types
■ Chart recorders	Over 100 types
■ Watt meters	Over 50 types
■ Network analyzers	Over 50 types
■ Radio test sets	Over 50 types
■ PAT testers	Over 50 types



All calibrations and repairs carried out by IFR come under the scope of its ISO 9002 registration that is regularly audited to ensure the highest standards. All calibrations are carried out in accordance with the requirements of ISO 10012-1 and all measurements are traceable to the appropriate National standards.



NAMAS accreditation is awarded by UKAS (The United Kingdom Accreditation Service) to laboratories that fulfil stringent quality criteria. IFR has one of the largest and longest running continuous NAMAS accreditations. With over 30 accreditations ranging from DC, LF to RF and microwave.



## Range Specifications

### Electrical

Parameter	Range	Frequency
DC resistance	1 mΩ to 1 GΩ	
DC voltage	up to 40 kV	
DC current	100 mA to 500 A	
AC voltage	1 mV to 1000 V	10 Hz to 100 kHz
AC current	up to 100 A	40 Hz to 1 kHz
AC resistance	up to 10 MΩ	100 Hz to 10 kHz
Distortion	100 dBc	10 Hz to 600 kHz
AC voltage ratio	10 <sup>-7</sup> to unity	50 Hz to 100 kHz
AC power	1 mW to 25 kW	20 Hz to 400 Hz
LF phase angle	0 to 360°	dc to 100 kHz
Inductance	1 μH to 16 kH	up to 10 kHz
Capacitance	up to 100 mF	up to 10 kHz
Dissipation factor	16 pF to 100 mF	up to 10 kHz
Frequency	1 MHz to 18 GHz	
Time interval	50 ns to 10 <sup>4</sup> s	
RF Admittance	1 ms to 500 s	20 MHz to 300 MHz
RF Impedance	2 Ω to 1000 Ω	20 MHz to 300 MHz
Voltage Reflection Coefficient	0 to 0.7	50 kHz to 18 GHz
Attenuation	0 to 100 dB	up to 1 GHz
RF power	+20 dBm to -60 dBm	30 kHz to 40 GHz
Amplitude modulation	up to 0.95	50 kHz to 2.32 GHz
Frequency modulation	Deviation up to 500 kHz	50 kHz to 5.4 GHz
RF voltage	1 mV to 100 V	50 kHz to 2 GHz
Phase noise	-160 dBc/Hz	1.5 MHz to 1.5 GHz
Temperature	-25°C to 550°C	

### Mechanical

Parameter	Range
Linear dimension	0 to 600 mm
Surface finish	Reference surface finish RA value 5.2 μm
Torque	0 to 100 nm
Thread measurement	
external	0.5 μm to 600 mm
internal	0.5 μm to 600 mm
Diameter	
external	0 to 600 mm
internal	0 to 600 mm
Slip measurement	0.5 mm to 100 mm
Angular measurement	0 to 45°
Pressure	0 to 1200 bar

**Call us today to find out how the IFR Service Group can help you.**

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