

## ELECTRONIC TEST & MEASUREMENT

2018 SHORT FORM

Oscilloscopes

RF Test Equipment

Function Generators & Counters

Logic & Protocol Analysers, MSOs

Data Acquisition

Multimeters

Power Supplies

Other Benchtop Instruments

Calibrators

Harness & Cable Testers

HiPot & Production Testers

3D Printers & Additive Manufacturing

Multilayer PCB 3D Printer



# Welcome

Dear Customer,

Welcome to Emona's 2018 Electronic Test & Measurement shortform.

The 2018 shortform matches the product categories in our [www.emona.com.au](http://www.emona.com.au) website.

You can also refer to our website for:

- product specifications and detailed brochures
- product demonstration and training videos
- software and firmware updates under the SUPPORT tab
- calibration information and booking form under the CALIBRATION tab

## Ordering

You can place orders on-line via our website at [www.emona.com.au](http://www.emona.com.au), or order via email, telephone or fax to your local Emona office. Payment by Mastercard, Visa and American Express is accepted. Account terms are available and subject to approval. Emona's Standard Terms & Conditions apply.

## Technical Support

Emona's technical support and sales staff are ready to help you with your measurement needs and solutions. Our sales engineers are technically trained to support our wide range of instruments and equipment. For more information contact your Emona office or call toll free 1 800 632 953.

## About Emona

Established in 1979, Emona Instruments has grown to become a leading supplier of electrical and electronic test and measuring instruments. With offices around Australia, AS/NZS ISO 9001-2008 Quality Management Requirements accreditation, NATA traceable calibration facilities and technically qualified sales staff, you can rely on Emona for your instrumentation requirements.

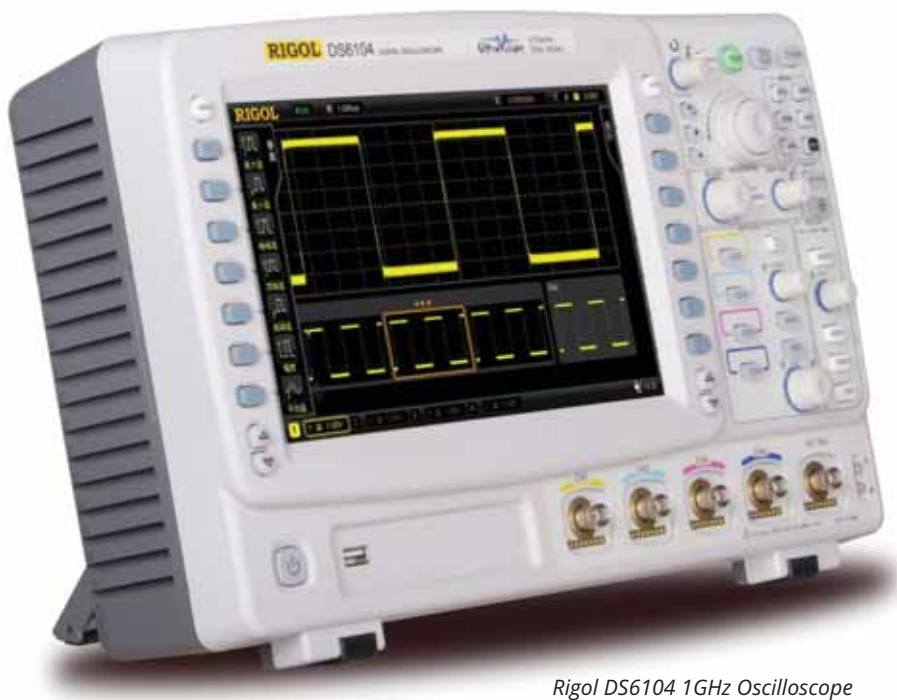
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## Product Demonstration & Training Videos

Look for the VIDEO icon for products that have demonstration and training videos available. Just go to [www.emona.com.au](http://www.emona.com.au), click the VIDEOS tab at the top of the page and browse our selection of videos.

# Oscilloscopes



Rigol DS6104 1GHz Oscilloscope




We offer a wide range of over 120 oscilloscopes to suit every budget and application, covering handheld, benchtop and PC-based models.


Our Rigol benchtop range covers from Australia's most popular DS1000E series with thousands of units in use in education, industry and hobbyists, through to the high technology DS6000 series offering up to 5GS/s and 1GHz bandwidth.

All our oscilloscopes are backed up by Emona's calibration and repair facility in Camperdown NSW. Contact us for an on-site demonstration by one of our qualified application sales engineers located around Australia.


## Handheld Oscilloscopes

	BRAND	RANGE	FUNCTION	FREQUENCY	CHANNELS
	<b>MICSIG</b>	MS-200T	Digital Storage	20MHz, 70MHz, 100MHz, 150MHz, 200MHz	2
		MS-300T & MS-500T	Isolated Inputs	100MHz & 200MHz	2

## Benchtop Oscilloscopes

	BRAND	RANGE	FUNCTION	FREQUENCY	CHANNELS
	<b>RIGOL</b>	DS1000E	Digital Storage	50MHz & 100MHz	2
		DS1000Z	Digital Storage, Mixed Signal & Sig Gen	50MHz, 70MHz & 100MHz	4 16 Digital
		DS2000E/A	Digital Storage, Mixed Signal & Sig Gen	70MHz, 100MHz, 200MHz & 300MHz	2 16 Digital
		DS4000	Digital Storage & Mixed Signal	100MHz, 200MHz, 350MHz & 500MHz	2/4 16 Digital
		DS6000	Digital Storage	600MHz & 1GHz	2/4

## PC-Based Oscilloscopes

	BRAND	RANGE	FUNCTION	FREQUENCY	CHANNELS
	<b>PICO TECHNOLOGY</b>	PicoScope 6000	Digital Storage	250MHz to 1GHz	2/4
		PicoScope 3425	Isolated Inputs	5MHz	4
		MSO2000 & MSO3000	Digital Storage & Mixed Signal	25MHz, 60MHz, 100MHz & 200MHz	2 16 Digital
		PicoScope 9000	Sampling Oscilloscope	15GHz & 25GHz	2
		PicoScope 4000 & 5000	Flexible Hardware Resolution	20MHz to 200MHz	2/4/8

# RF Test Equipment




Rigol RSA5000 Real-Time Spectrum Analysers


We offer a range of affordably priced RF test equipment that proves that you don't need to spend a lot of money on the big brands to get performance that will meet your testing requirements.

With a combination of Rigol, Aim-TTi, Tekbox, Pico and GSI products, we can provide you with a range of handheld, benchtop and PC-based solutions.


## Spectrum Analysers

	BRAND	RANGE	TYPE	FREQUENCY
	<b>RIGOL</b>	DSA-Series	Benchtop	500MHz to 7.5GHz
	<b>AIM-TTI</b>	PSA Series	Handheld	1.3GHz, 2.7GHz, 3.6GHz & 6.0GHz


## RF Signal Generators

	BRAND	RANGE	FREQUENCY	MODULATION
	<b>RIGOL</b>	DSG Series	1.5GHz to 6GHz	AM/FM/Phase/Pulse/IQ
	<b>AIM-TTI</b>	TGR Series	1GHz, 2GHz & 6GHz	AM/FM/Phase


## Vector Network Analysers

	BRAND	RANGE	TYPE	FREQUENCY
	<b>PICO</b>	VNA-106	PC-Based	6GHz
	<b>GSI</b>	A338	Benchtop	8GHz

## Real-Time Spectrum Analysers

	BRAND	RANGE	TYPE	FREQUENCY
	<b>RIGOL</b>	RSA Series	Benchtop	3.2GHz & 6.5GHz

## EMC Pre-Compliance Test

	BRAND	RANGE	FUNCTION
	<b>TEKBOX</b>	TB Series	EMC Near Field Probes, LISN & TEM Cell

# Function Generators & Counters



Rigol DG5000 Series 350MHz, 1GS/s Arbitrary Generator

Our range of generators and counters offers a wide number of options in pricing and specifications from Rigol, Aim-TTI and GW Instek.

From a basic 3MHz or 5MHz function generator for an educational laboratory, through to multi-channel arbitrary generators for research applications, Emona has the unit for your application and budget.

## Arbitrary/Function Generators

	BRAND	RANGE	FREQUENCY	CHANNELS	MEMORY	SAMPLING
	<b>RIGOL</b>	DG-1022	20MHz	2	4Kpts	100MS/s
		DG-1000Z	25MHz, 30MHz & 60MHz	2	16Mpts	200MS/s
		DG-4000	60MHz, 100MHz & 160MHz	2	16Kpts	500MS/s
		DG-5000	70MHz, 100MHz, 250MHz & 350MHz	1/2	120Mpts	1GS/s
	<b>AIM-TTI</b>	TG Series	10MHz to 50MHz	1/2/4	1Mpts	Up To 100MS/s

## Function Generators

	BRAND	RANGE	FREQUENCY	TYPE
	<b>GW INSTEK</b>	GFG Series	2MHz to 15MHz	ANALOG
		SFG Series	3MHz	DDS
	<b>AIM-TTI</b>	TGP Series	3MHz to 160MHz	ANALOG & DDS

## Pulse Generators

	BRAND	RANGE	FREQUENCY	TYPE
	<b>AIM-TTI</b>	TGP110	10MHz	ANALOG
		TG Series	25MHz & 50MHz	DDS

## Frequency Counters

	BRAND	RANGE	FREQUENCY	TYPE
	<b>AIM-TTI</b>	PFM3000	3GHz	HANDHELD
		TF Series	3GHz & 6GHz	BENCHTOP

# Logic & Protocol Analysers, MSOs




Rigol MSO4054 4 Channel, 500MHz Mixed Signal Oscilloscope


Our MSOs range from Rigol's MSO1000Z 4 channel oscilloscopes in 70 or 100 MHz versions with a 7 inch display and 16 bit digital inputs, through to the MSO4000 series with bandwidths between 100MHz and 500MHz, sample rates up to 4GSa/s, 2 or 4 analog channels, and 16 digital logic channels.

Our ITI range of protocol analysers offer remarkable price to performance in PC-based instruments with advanced software functionality.


## Benchtop Mixed Signal Oscilloscopes

	BRAND	RANGE	ANALOG BANDWIDTH	SAMPLING RATE	LOGIC CHANNELS
	<b>RIGOL</b>	MSO 1000Z Series	70MHz & 100MHz	1GS/s	16
		MSO 2000A Series	70MHz, 100MHz, 200MHz & 300MHz	2GS/s	16
		MSO 4000 Series	100MHz, 200MHz, 350MHz & 500MHz	4GS/s	16


## PC-Based Mixed Signal Oscilloscopes

	BRAND	RANGE	ANALOG BANDWIDTH	SAMPLING RATE	LOGIC CHANNELS
	<b>PICO TECHNOLOGY</b>	2000B MSO	25MHz to 100MHz	1GS/s	16
		3000D MSO Series	50MHz, 70MHz, 100MHz & 200MHz	1GS/s	16

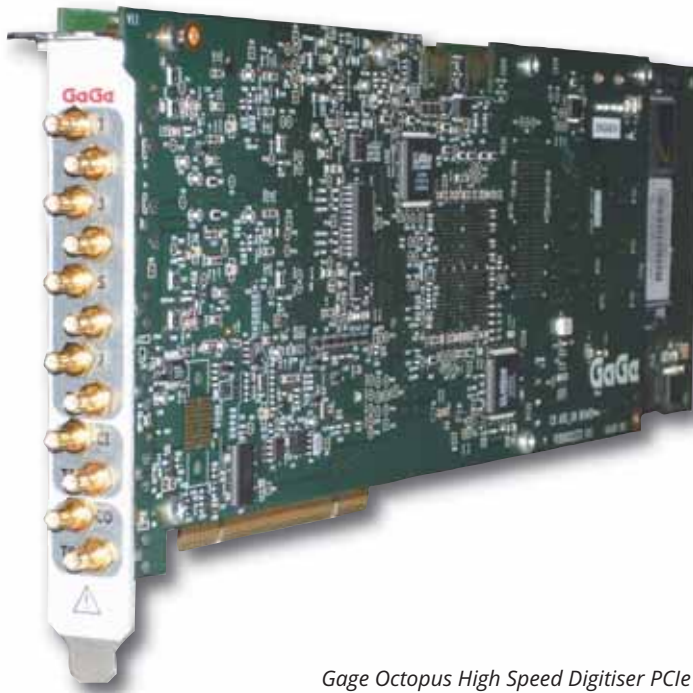
## PC-Based Logic Analysers

	BRAND	RANGE	TIMING ANALYSIS	CHANNELS	MEMORY
	<b>ACUTE</b>	LA3000 Series	2.4GHz	136	32GB
		TL3000 Series	2GHz	34	8GB

## PC-Based Protocol Analysers

	BRAND	RANGE	FUNCTION
	<b>INTERNATIONAL TEST INSTRUMENTS</b>	1480A	• USB bus analyser capturing and decoding real-time LS, FS and HS USB transactions as well as OTG SRP, OTG HNP and OTG VBus
		2500A	• PCIe Protocol Analyzer with 2GB DDR2 SDRAM, an external x4 Active PCIe Slot Probe as well as a x4 external PCIe cable

# Data Acquisition




*Gage Octopus High Speed Digitiser PCIe Card*

Our range of data acquisition products are supported by Gage Applied, Pico Technology and Rigol.


GaGe's extensive line of products include ultra high speed data acquisition digitizer boards, digital oscilloscope cards, analog and digital signal generation cards, arbitrary waveform generator boards, digital pattern generation cards, digital input cards and software packages to create a user-friendly human interface.

Pico data loggers require no power supply and simply plug into a USB port on your PC, or an Ethernet port on your PC or network. Every logger is supplied with PicoLog data acquisition software so you can measure, record and analyze your data.


## High Speed Digitiser Cards - PCI/PCIe

	BRAND	RANGE	FUNCTION
	<b>GAGE APPLIED</b>	CompuScope	<ul style="list-style-type: none"> <li>• 8 Bit up to 4GS/s</li> <li>• 12 Bit up to 6GS/s</li> <li>• 14 Bit up to 200MS/s</li> <li>• 16 Bit up to 1GS/s</li> <li>• Up to 64 channels in multicard system</li> <li>• PCIe streaming at 3.1GB/second</li> <li>• On board memory up to 32GB</li> </ul>


## Multi-Input - Standalone

	BRAND	MODEL	FUNCTION
	<b>RIGOL</b>	M300	<ul style="list-style-type: none"> <li>• Up to 320 switch channels per mainframe</li> <li>• Integrated DMM scanning of up to 256 channels at up to 250 channels/sec</li> <li>• Interval scanning with storage of up to 100,000 time-stamped readings</li> <li>• 10 different available modules</li> <li>• Connect via USB, GPIB, LAN (LXI-C), or RS-232</li> </ul>

## Voltage Input - PC Based

	BRAND	RANGE	CHANNELS	RESOLUTION	INTERFACE
	<b>PICO TECHNOLOGY</b>	ADC Series	8 & 16	20Bit & 24 Bit	USB
		PicoLog Series	12 & 16	10 Bit & 12 Bit	USB

## Temperature Input - PC Based

	BRAND	RANGE	CHANNELS	FUNCTION	INTERFACE
	<b>PICO TECHNOLOGY</b>	TC-08	From 8 up to 80	Thermocouples	USB
		PT-104	From 4 up to 80	PT-100 & PT1000	USB/Ethernet

# Multimeters



Fluke 8508A Reference Digital Multimeter

We offer a range of benchtop and handheld multimeters to suit education, industrial and calibration applications.

Fluke's 8508A is an 8.5-digit resolution instrument designed specifically for metrologists.

The Rigol DM-3000 series have grown in popularity in educational institutions as a practical and cost effective laboratory instrument.

Metrel's range of DMMs cover from general meters through to CAT IV/1000V applications requiring safety and reliability.

## Benchtop Multimeters

	BRAND	RANGE	RESOLUTION	FUNCTIONS
	<b>FLUKE</b>	8000 Series	8.5, 6.5 & 5.5 Digits	AC/DC V, AC/DC A, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity
	<b>RIGOL</b>	DM-3000 Series	6.5 & 5.5 Digits	AC/DC V, AC/DC A, Resistance, Capacitance, Frequency, Temperature, Diode, Continuity
	<b>GW INSTEK</b>	GDM-8000 Series	6.5, 5.5, 4.75, 4.5 & 3.5 Digits	TRMS AC/DC V, AC/DC A, Resistance, Capacitance, Frequency, Diode, Continuity
	<b>AIM TTI</b>	1000 Series	4.25 & 4.75 Digits	AC/DC V, AC/DC A, Resistance, Capacitance & Frequency,

## Handheld Multimeters

	BRAND	RANGE	CAT RATING	FUNCTIONS
	<b>METREL</b>	MD-9060	CAT IV/1000V	TRMS AC & AC+DC V & A, Resistance, Conductance, Frequency, Capacitance, Temp
		MD-9050	CAT IV/1000V	TRMS AC & AC+DC V & A, Resistance, Conductance, Frequency, Capacitance, Temp
		MD-9040	CAT IV/1000V	TRMS AC V & A, DC V & A Resistance, Conductance, Frequency, Capacitance
		MD-9030	CAT IV/300V	TRMS AC V & A, DC V & A, Resistance, Conductance, Frequency, Capacitance
		MD-9020	CAT IV/300V	AC/DC V, AC/DC A, Resistance, Frequency, Capacitance
		MD-1150	CAT IV/1000V	Voltage, Continuity Tester, with Phase Sequence, RCD Test & Diode



# Power Supplies




*Kikusui PCR-LE AC Output Power Supplies*

We offer the broadest range of DC power supplies available in Australia.


Established in 1951, Kikusui DC and AC power supplies are built to high standards guaranteeing high quality and high reliability.

Magna-Power, founded in 1981, are specialist US made power supplies offering a market leading range from 1.25kW through to 2,000kW+ and can be found in applications including simulating solar arrays, powering radar systems and particle accelerators.


## DC Output - General Purpose

	BRAND	RANGE	OUTPUTS	VOLTAGE RANGE	CURRENT RANGE
	<b>RIGOL</b>	DP-800 Series	Single to Triple	0 - 110V	0-30A
	<b>GW INSTEK</b>	GPS/GPC/GPR Series	Single to Quad		
	<b>AIM-TTI</b>	EL/PL/TSX Series	Single to Quad		


## DC Output - Professional Series

	BRAND	RANGE	TYPE	VOLTAGE RANGE	CURRENT RANGE
	<b>KIKUSUI</b>	PAS Series	Single	0 - 500V	0 - 6A
		PWR Series	Single	0 - 650V	0 - 160A

## DC Output - High Power

	BRAND	RANGE	POWER	VOLTAGE RANGE	CURRENT RANGE
	<b>MAGNA-POWER</b>	SL & XR Series	1.5kW to 10kW	0 - 10,000V	0 - 600A
		TS Series	5kW to 45kW	0 - 4,000V	0 - 2,700A
		MS Series	30kW to 75kW	0 - 4,000V	0 - 4,500A
		MT Series	100kW to 2000kW+	0 - 4,000V	0 - 24,000A

## AC Output

	BRAND	RANGE	TYPE	kVA	FREQUENCY
	<b>KIKUSUI</b>	PCR-M Series	Single Phase	500VA - 4kVA	50 - 400Hz
		PCR-LE Series	Single/Three Phase	500VA - 81kVA	50 - 999.9Hz

# Other Benchtop Instruments




Kikusui PLZ Series DC Electronic Loads


We offer a wide range of benchtop test instruments for all your testing and R & D applications.

For example, Kikusui's PLZ-4W series electronic loads have been designed to offer the highest levels of reliability and safety. The units operate in constant voltage, constant current, constant power and constant resistance modes. Control is via GPIB, RS232C and USB..


## DC Loads

	BRAND	RANGE	POWER RATING	MAX V & A
	<b>RIGOL</b>	DL Series	200W - 300W	150V/60A
	<b>KIKUSUI</b>	PLZ Series	75W - 9KW	650V/18000A


## LCR Meters

	BRAND	RANGE	TYPE	TEST FREQUENCY
	<b>LUTRON</b>	LCR-9183	Handheld	100Hz - 100kHz
	<b>GW INSTRON</b>	LCR-6000 Series	Benchtop	2kHz - 300kHz
		LCR-8100 Series	Benchtop	20Hz - 1MHz

## Micro-Ohm Meters

	BRAND	RANGE	FUNCTION
	<b>AIM TTI</b>	BS-407	1999μohm - 19.99kohm
	<b>GW INSTRON</b>	GOM-802	30mohm - 3Mohm

## Waveform Amplifier

	BRAND	MODEL	FUNCTION
	<b>AIM TTI</b>	WA-301	<ul style="list-style-type: none"> <li>• Extends output range of function generators</li> <li>• 30 Volts peak to peak output swing</li> <li>• DC to 1MHz bandwidth</li> </ul>

# Fluke Calibration




Fluke 5730A Multi-Function Electrical Calibrator


Fluke Calibration is a global leader in precision calibration instrumentation and software for electrical, RF, temperature, pressure, and flow measurements.

Fluke Calibration products are found in calibration facilities around the world, including National Metrology Institutes, that demand the highest levels of performance, reliability and uncompromising support.


## Electrical Calibration

	BRAND	FUNCTION
	<b>FLUKE CALIBRATION</b>	<ul style="list-style-type: none"> <li>• Multi-product Calibrators</li> <li>• Multi-function Calibrators</li> <li>• Oscilloscope Calibrators</li> <li>• Electrical Tester Calibrators</li> <li>• Power and Energy Calibrators &amp; Standards</li> <li>• Precision Process Calibrators</li> </ul>


## RF Calibration

	BRAND	FUNCTION
	<b>FLUKE CALIBRATION</b>	<ul style="list-style-type: none"> <li>• 27GHz Low Phase Noise Reference Source</li> </ul>


## Temperature Calibration

	BRAND	FUNCTION
	<b>FLUKE CALIBRATION</b>	<ul style="list-style-type: none"> <li>• Primary Standards</li> <li>• ITS-90 Fixed-Point Cells</li> <li>• Thermometer Readouts</li> <li>• Thermometer Probes</li> <li>• Calibration Baths</li> <li>• Industrial Temperature Calibrators: Dry Wells, Micro-Baths, Furnaces</li> </ul>

## Pressure Calibration

	BRAND	FUNCTION
	<b>FLUKE CALIBRATION</b>	<ul style="list-style-type: none"> <li>• Gas Pressure Calibrators</li> <li>• Hydraulic Pressure Calibrators</li> </ul>

## Gas Flow Calibration

	BRAND	FUNCTION
	<b>FLUKE CALIBRATION</b>	<ul style="list-style-type: none"> <li>• Gas Flow Standards</li> <li>• Primary Gas Flow Standards</li> </ul>

# Harness & Cable Testers




Cami Research CableEye M3U 512 Test Points


Our range of cable testers and harness testers from Cami Research allow you to instantly find defective or miswired cables before they damage equipment or waste valuable technician time.

CableEye cable testers and harness testers have a unique, patented graphic wiring display to visually pinpoint problems when wiring errors are detected, and offer one-second pass/fail testing for production environments. Quickly locate intermittent connections and identify their position in the cable.


## Low Voltage Cable & Harness Testers

	BRAND	MODEL	FUNCTION
	<b>CAMI RESEARCH</b>	CableEye M2U/M3U	<ul style="list-style-type: none"> <li>• M2U for basic continuity applications , i.e checking for opens, shorts, miswires, intermittent connections</li> <li>• M3U for opens, shorts, miswires, intermittent connections, continuity checks, as well as checks for contact and isolation resistance using two settable resistance thresholds, measures embedded resistors and diodes.</li> </ul>

## High Voltage Cable & Harness Testers

	BRAND	MODEL	FUNCTION
	<b>CAMI RESEARCH</b>	CableEye HVX	<ul style="list-style-type: none"> <li>• Combines the M3U tester with a high voltage module to provide insulation resistance and dielectric breakdown testing</li> <li>• Testing at up to 1500V DC and 1000V AC</li> <li>• Adjustable in 1V increments from 10V to the maximum voltage permitted</li> <li>• Programmable Ramp Up, Ramp Down, Dwell Time, Trip Current, and Trip Delay</li> </ul>

## CableEye Custom Interfaces

	BRAND	MODEL	FUNCTION
	<b>CAMI RESEARCH</b>	Custom Interfaces	<ul style="list-style-type: none"> <li>• CableEye Systems also allow users to mount special connectors and pigtailed on blank boards to build custom interfaces or CAMI can build custom interfaces as per user requirements</li> <li>• Central to CAMI's custom solutions is the PinMap™ software. PinMAP allows you to link any custom test fixtures or adapter cables to CableEye's connector library and database</li> </ul>

# HiPot & Production Testers



GW Instek GPT-9084 5kV AC/DC Tester with 30A Earth Bond

GW's GPT-9800 series offer high performance safety testing at an affordable price. Units are equipped with a simple and clear panel layout, a high resolution dot matrix LCD display, and color LED indicators, allowing operators to interpret measurement results easily and quickly

The Clare HAL series provides a solution for any production line testing requirement from low volume manual testing through to high volume automated test programmes.

## Manual/PC Interface Models

	BRAND	RANGE	OUTPUT VOLTAGE	VA	FUNCTIONS
	GW INSTEK	GPT-9900	5kV	500VA	AC/DC, IR & Ground Bond
		GPT-9800	5kV	200VA	AC/DC, IR & Ground Bond
		GPT-9600	5kV	100VA	AC/DC, IR
	KIKUSUI	TOS-5101	10kV	500VA	AC/DC

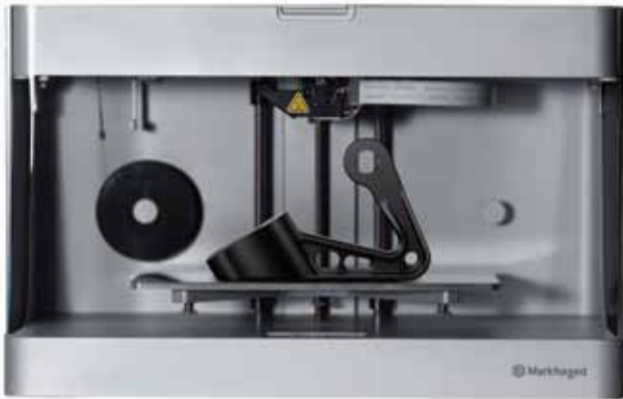
## Automated/Programmable Models

	BRAND	RANGE	OUTPUT VOLTAGE	FUNCTIONS
	CLARE	HAL-101	5kV	AC/DC, Insulation Resistance
		HAL-102	5kV	AC/DC, Insulation Resistance & Internal Scanner
		HAL-103	5kV	AC/DC, Insulation Resistance & Ground Bond
		HAL-104	5kV	AC/DC, Insulation Resistance, Ground Bond & Leakage Current

## Leakage Current Tester

	BRAND	RANGE	FUNCTION
	GW INSTEK	GLC-9000	<ul style="list-style-type: none"> <li>• 8 leakage current settings for medical &amp; general electrical equipment</li> <li>• Leakage current measuring modes DC/AC/AC+DC/AC Peak</li> </ul>

# 3D Printers



Markforged Mark II

Our range of 3D printers and additive manufacturing solutions offer a range of printing technologies and printing materials.

Printing technologies cover Continuous Filament Fabrication, Fused Filament Fabrication, Atomic Diffusion Additive Manufacturing, Selective Laser Sintering, LENS and Aerosol Jet.

From thermoplastics and SLS nylons, through to high strength carbon fibre composite parts and metal printing, Emona's 3D printing range offers solutions for anything from education and university maker labs, through to materials research and manufacturing environments.

## Thermoplastics Printers

	BRAND	RANGE	LAYER RESOLUTION	MATERIALS	BUILD SIZE
	<b>AIRWOLF 3D</b>	AXIOM20-DUAL	40 microns	40+ Plastics (ABS, PLA, Polypropylene, Polycarbonate, Nylon, TPU, Flame Retardant ABS, ESD Protection ABS, Water Soluble Support)	317 x 304 x 508 mm
		AXIOM DUAL	40 microns		304 x 203 x 241 mm
		AXIOM	40 microns		304 x 203 x 254 mm

## High Strength Composite Materials

	BRAND	RANGE	LAYER RESOLUTION	MATERIALS	BUILD SIZE
	<b>MARKFORGED</b>	MARK TWO-ENT	100 microns	Continuous Fibres, Carbon Fiber, Kevlar, Fiberglass, Onyx, Nylon	320 x 132 x 154 mm
		ONYX-PRO	100 microns	Continuous Fibreglass, Onyx, Nylon	320 x 132 x 154 mm
		ONYX-ONE	100 microns	Onyx	320 x 132 x 154 mm
		MARK X	50 microns	Continuous Fibres, Carbon Fiber, Kevlar, Fiberglass, Onyx, Nylon	330 x 250 x 200 mm

## Selective Laser Sintering

	BRAND	RANGE	LAYER RESOLUTION	MATERIALS	BUILD SIZE
	<b>SINTRATEC</b>	SINTRATEC-S1	100 microns	PA12 Powder FLEX Nylon	130 x 130 x 180 mm
		SINTRATEC-KIT			110 x 110 x 110 mm

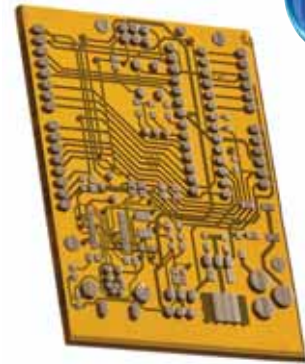
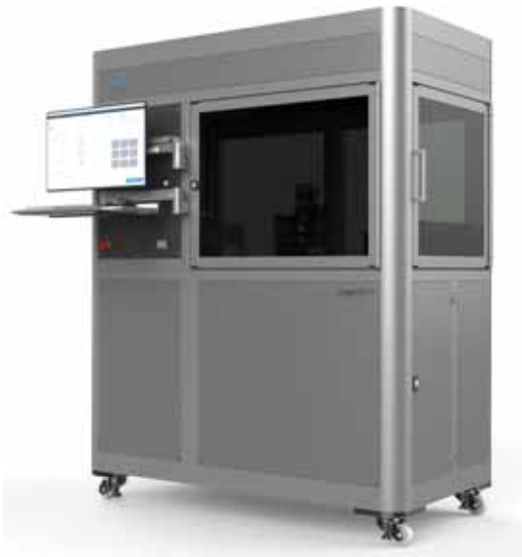
## Metal 3D Printing

	BRAND	RANGE	LAYER RESOLUTION	MATERIALS	BUILD SIZE
	<b>MARKFORGED</b>	METAL X	50 microns	17-4 & 303 Stainless Steel, A-2 & D-2 Tool Steel, 6061 & 7075 Aluminium, Titanium Ti-6Al-4V	250 x 220 x 200 mm

## Optomec LENS and Aerosol Jet

	BRAND	RANGE	RESOLUTION	MATERIALS
	<b>OPTOMEc</b>	LENS	250 microns	Titanium, Nickel, Tool Steel, Stainless Steel, Aluminium, Cobalt, Carbide, Ceramics, Copper
		AEROSOL JET	10 microns	Metal Inks, Resistor Inks, Non-Metallic Conductors, Dielectrics & Adhesive, Semiconductors, Biologics


# Multilayer PCB 3D Printer



*Nano Dimension DragonFly 2020 Pro Multilayer PCB 3D printer*

The DragonFly 2020 Pro system brings together an extremely precise inkjet deposition printer, high performance silver nano-particle conductive and dielectric inks as well as dedicated software, in order to bring the benefits of 3D printing to electronics professionals.

## PCB 3D Printer

	BRAND	MODEL	FUNCTION
	<p><b>NANO DIMENSION</b></p>	<p>Dragon Fly 2020 Pro</p>	<ul style="list-style-type: none"> <li>• Simultaneous 3D printing of conductive silver nanoparticle ink (metals) and insulating inks (dielectric polymers).</li> <li>• Full range of PCB features can be 100% printed - including interconnections such as vias and through-holes - with no post processing required</li> <li>• Multilayers within 2mm thickness</li> <li>• Maximum PCB size 20 x 20 cm</li> <li>• File compatibility Gerber X274 design files</li> <li>• Enables companies to bring designs to the market more quickly, while keeping sensitive design information in-house</li> </ul>

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### **GROUP WEBSITES**

**Test & Measurement:** [www.emona.com.au](http://www.emona.com.au)

**Testing & Tagging:** [www.protag.com.au](http://www.protag.com.au)

**Installation Testing:** [www.instaltest.com.au](http://www.instaltest.com.au)

**TIMS Telecoms Trainer:** [www.tims.com.au](http://www.tims.com.au)