



Background

Micross Components have been testing and screening semiconductor components for well over 30 years, and boast of a rich heritage of test equipment. Certainly the oldest independent test house in the UK, and probably in Europe ... this doesn't mean that our equipment is old ... far from it. Micross Components can boast a wide range of modern electrical and environmental test equipment. This includes the latest Credence Diamond D10 system with 288 high speed digital pins and a plethora of analogue resources that make this a very fast and powerful tester indeed.

With our undoubted expertise in component test and screening, our true in-house capability stretches from simple discrete devices right up to the most complex of mixed signal ASIC parts.

Couple this with our excellent assembly and packaging capability, and you have a dedicated expert team for all your semiconductor supply needs, including storage, obsolescence management and component re-design.

For further details, or for a "Quick-Quote", please call us now on 01420 594180.

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Credence Diamond D10 capability.

Following TS2's stable of complex VLSI and mixed-signal testers, TS2 are now using their Credence Diamond D10 system in anger. The D10 system is a high-technology EX-VLSI mixed signal tester having both a high digital pin-count coupled with a comprehensive mixed-signal capability, permitting TS2 to rigorously test both complex digital, analog and mixed-signal devices.

This new mixed-signal tester currently has 288 digital IO pins (each with its own parametric subsystem and expandable up to 768 pins), plus 16 independent Voltage/Current source units; each unit capable of behaving as a power-supply or as an entire measurement system. A further four arbitrary waveform -generators and data capture units in the optional multi-wave sub-system complete the line-up of instrumentation.

Running at digital vector speeds up to 200M bits/sec, this tester is more than capable of tackling the most complex of mixed-signal and digital devices. Each digital IO pin has an independent parametric measurement unit (PMU) and an independent level / timing / format generator. The test vector depth is configured to 16Mb-per-pin having an instruction rate of 100MHz and the vector memory has full scan-vector capability, all of which ensures that the D10 can cope with the most complex of digital parts.

The D10 also includes a comprehensive test software suite, based upon industry standard STIL (IEEE 1450) and C++, operating on a Linux-based PC platform.

Technical Specification

Digital sub-section

<i>Total Digital Channels</i>	288
<i>Data Rate</i>	200 Mbps, Instruction Rate = 100MHz
<i>Voltage Swing per pin</i>	-1.5V to 6.0V, overall accuracy = 15mV
<i>Drive current per pin</i>	35mA
<i>Waveform formats</i>	64 per edge
<i>Format sets</i>	256, time sets = 256
<i>Timing resolution</i>	19.53125ps, min pulse width = 2.5ns
<i>Edge placement accuracy</i>	±350ns
<i>Test vector depth</i>	16M vectors
<i>Scan vector depth</i>	1152M vectors in 2 chains

Analog Measurement (per pin) sub-section

<i>Voltage Range</i>	8V (15mV) / 12V (25mV)
<i>Current Ranges</i>	2uA, 8uA, 32uA, 128uA, 512uA, 2mA, 8mA, 25mA.
<i>Measurement Accuracy</i>	±2%, ±100nA

Power & VIS Measurement sub-section

<i>VI Source/Measure Channels</i>	16 (gangable)
<i>VI Operation Limits</i>	±20V @ ±300mA, ±60V @ ±100mA
<i>Voltage Ranges</i>	±20mV, ±200mV, ±2V, ±5V
<i>Current Ranges</i>	±300nA, ±3uA, ±300uA, ±3mA, ±30mA, ±300mA
<i>Measurement Accuracy (Voltage)</i>	± 0.06% of FSR
<i>Measurement Accuracy (Current)</i>	± 0.1% of FSR
<i>Resolution</i>	16bits

Multiwave sub-section

<i>Waveform Generator Channels</i>	8 single-ended or 4 differential
<i>Waveform Generator Details</i>	24-bit at up to 768kS/s, 500KHz BW, thd<-110dB @ 1KHz, selectable filters, Output ranges and offset up to ±10V Overall accuracy = ± (0.1% + 800uV) Up to 2MByte
<i>Waveform Digitizer Channels</i>	4 differential, (8 PMU's)
<i>Waveform Digitizer Details</i>	High Precision Mode 24-bit capture at up to 2.5MS/s +/- 10V input swing 5 selectable input filters Up to 1M Sample (LF mode) High Frequency Mode 16-bit capture at up to 130MS/s ± 3.4V input swing 4 selectable input filters Up to 2M Sample (HF mode)

For further information or technical details, please contact Micross Components directly.