Analogue Functional Test

The 24 test channels available on the Analogue IC Test Solution have the facility to drive analogue voltage onto the PCB and measure analogue responses (in both voltage and current) from the device under test. The same channels can also be set to restrict the output of the device under test to a specified voltage in order to protect connected circuitry and facilitate a more comprehensive test of the device. The inclusion of these features in the SYSTEM 8 Analogue IC Tester means that analogue ICs can be verified by a functional in-circuit test by simply attaching a clip.

Discrete Devices

Testing discrete devices is easy using three dedicated channels. A wide range of programmable voltage and current stimulus and measurement features are offered. This allows many different devices to be tested ranging from power transistors to high-gain Darlington transistors.

24 channel Matrix V-I

Matrix V-I testing is a powerful extension to the normal Analogue V-I technique. The Matrix V-I test performs a V-I test between every pair of pins on the device under test (DUT) and in every single combination. This technique also allows ICs to be tested out-of-circuit as well as finding shorts between pins that would otherwise not have been found.

The SYSTEM 8 Analogue IC Tester can be used to efficiently diagnose faults on analogue PCBs down to component level, or for functionally testing ICs. No other product offers such comprehensive test and fault diagnosis facilities at such a low price.

Analogue

In circuit

PC required

İLTEK TEKNOLOJİ
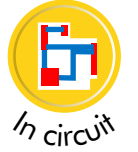
- Analogue Functional Test
- Clear pass or fail results
- Circuit diagrams not required
- 24 analogue channels
- Board comparison fault diagnosis
- Auto comparison with stored results
- Powerful Matrix V-I Test
- Auto clip positioning

SYSTEM 8 Analogue IC Tester

Combining power-on and power-off tests, the Analogue IC Tester is the ideal solution to find faults on analogue PCBs

24 channel Analogue IC Tester Module

V-I test capability

Number of test channels:	24 + 2 probes and references
Test voltage:	2 V to 50 V peak to peak
Voltage resolution:	8 to 12 bits
Test frequency:	37.5 Hz to 12 kHz
Test current:	1 µA to 150 mA
Source impedance:	100 Ohm to 1 M
Test waveforms:	Sine, triangle, ramp
Waveform modes:	V-I, V-T, I-T
Waveform display:	Multi-plot with single waveform zoom
Waveform comparison:	Automatic comparison algorithm for good and bad boards using live probes or disk
V-I comparison tolerance:	50 mV to 500 mV with 50 mV resolution
Package support:	DIL, SOIC, PLCC, QFP and variants with MultiProbes
Pulse output:	Positive, negative or bipolar for thyristors/ triacs
Pulse amplitude:	Adjustable to +/-10 V
Calibration:	Can be calibrated by user

Analogue functional test capability

Number of I/O channels:	24 independent + 3 special discrete channels
Driver voltage:	-12 V to +12 V
Driver voltage resolution:	10 bit
Driver output current:	200 mA max sink or source
Driver states:	Voltage source, current source, off
Discrete source current:	10 µA - 150 mA. (driving a load returned to 0 V)
Driver source impedance:	34 Ohm (34 Ohm, 1 k or 10 k on discrete channels)
Sensor input voltage:	+/- 24 V
Sensor voltage protection:	+/- 50 V
Sensor input impedance:	2 M
Sensor voltage resolution:	12 bit
Restrict voltage:	-10 V to +10 V
Restrict voltage resolution:	8 bit
Sensor current measurement:	1 mA to 150 mA (10 nA to 150 mA on discrete channels)
Sensor current resolution:	12 bit
Sensor current input impedance:	50 Ohm (50 Ohm, 1 k, 10 k or 1 M on discrete channels)
Short detection threshold:	<4 Ohm
Link detection threshold:	<10 Ohm
Test modes:	Single, unconditional loop, pass loop, fail loop
Test clip positioning:	Automatically adjusts for clip orientation
Circuit compensation:	Automatically modifies test for IC/PCB connections
Test trace:	Test waveforms and voltages displayed
Test analysis:	Displays test parameters such as gain, hfe, feedback
IC test capability:	Op-amps, comparators, DACs, ADCs, switches and special function analogue ICs in-circuit.
Discrete test capability:	Transistors, FETs, thyristors, triacs in- or out-of-circuit
IC test libraries:	Analogue, discrete, package, user
Result comparison:	Results can be saved for good/bad board comparison
Package support:	DIL, SOIC, PLCC and variants with MultiProbe kits
PLIP test programming:	Structured programming language for library additions

Other specifications

Electrical input:	(typical) +12 V, 1 A (max)
	(typical) -5 V, 750 mA
	(typical) -12 V, 100 mA
Dimensions:	147 x 202 x 42 mm
Weight:	1 kg

Accessories

Standard	1 x SMD test tweezer set and adapters
	1 x 24 way test clip and cable assembly
	1 x Blue V-I probes and adapter
	1 x Yellow V-I probes and adapter
	2 x Pulse leads
	2 x Ground leads
	3 x Discrete leads

Options

Internal fitting	PCI interface
External fitting	MultiLink case (cost option) with USB. External case (cost option) which can hold up to 5 SYSTEM 8 modules (USB interface).

The ABI development team strive continually to improve their products for the benefit of the customer. The specification of current products may therefore vary from that described in this brochure.