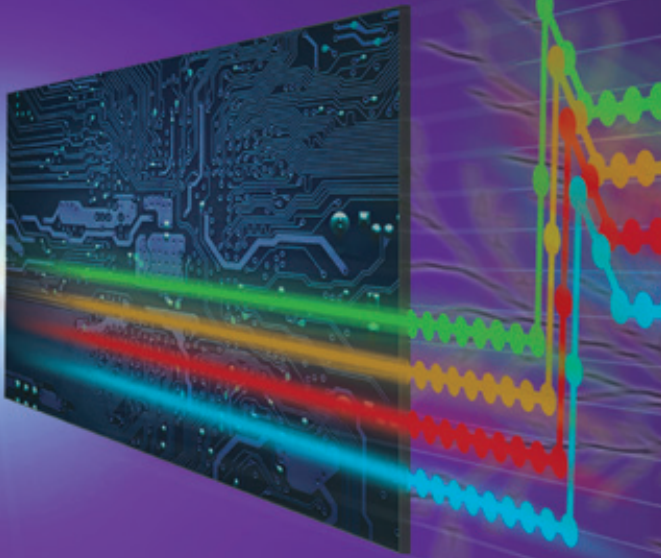


Introducing the new  
AutoSIR System from  
Gen3 Systems

Measuring changes in  
Surface Insulation Resistance



**GEN<sup>3</sup>**  
**SYSTEMS**

**AutoSIR<sup>2</sup>**  
Surface Insulation Resistance Testing System

Features:

Measurement Time:  
256 Channels <8 seconds

Applied Voltage:  
+1V to 1000V

Measurement Range:  
 $10^6 \Omega$  to  $10^{14} \Omega$

Measurement Method:  
Continuous on all selected  
channels

Measurement Test  
Intervals:  
Fully Selectable from  
minimum of 1 minute



Introducing the new  
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## Surface Insulation Resistance Testing System

Following over 2 years of intense research and development we are proud to introduce the next generation instrument used to measure changes in Surface Insulation Resistance the NEW Gen3 Systems AutoSIR 2.

The new AutoSIR Measurement Systems provides the following performance enhancements:

- When the measurement and test bias are the same, no switching takes place as the voltages are continuously applied
- Measurements from all 256 channels can be taken in <8 seconds
- Capable of testing to all existing test specifications IPC - IEC - JNC and other user specifications
- Future-proofed design
- Adaptable and flexible software operating with Windows<sup>®</sup> 7 & 8

The NEW AutoSIR 2 is already in use with the British NPL.

For over 30 years, Gen3 Systems has worked closely with the National Physical Laboratory (NPL). This unique relationship has helped in our development of our various test systems as well as helping us define new measurement techniques and equipment.

Gen3 Systems actively participates in standards development work with IEC, IPC, ISO, BSI and other official standards authorities

Features:

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Measurement Time:  
256 Channels <8 seconds

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Applied Voltage:  
+1V to 1000V

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Measurement Range:  
 $10^6 \Omega$  to  $10^{14} \Omega$

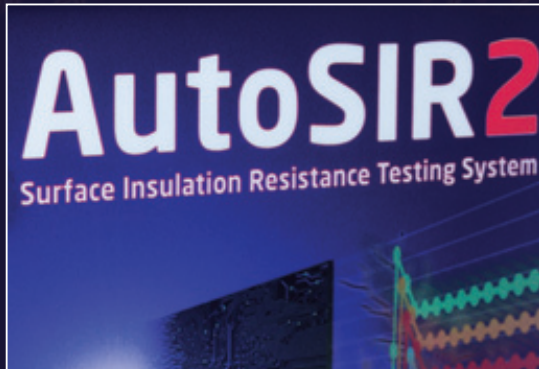
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Measurement Method:  
Continuous on all selected  
channels

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Measurement Test  
Intervals:  
Fully Selectable from  
minimum of 1 minute

## SIR Testing



Measurements may be taken at test intervals that are fully selectable from a minimum of 1 minute. Each channel is current limited (1 M $\Omega$ ), ensuring that Electro-Chemical Reactions (Dendrites) are preserved for subsequent failure analysis. The frequent monitoring capability provides a full picture of the electro-chemical reactions taking place on a circuit assembly, and provides early trend analysis enabling tests to be curtailed, thus saving considerable test time and money.

The design of the data acquisition cards minimises channel-to-channel leakage. This is important because, the extremely low levels of current involved in SIR measurement means, any stray currents (including electromagnetic noise or leakage between wire insulations) can significantly affect measurement accuracy.

Independent temperature-humidity monitoring records the environmental conditions next to the coupon under test, as the data is gathered, for more accurate data analysis.

# The NEW AutoSIR Measurement System

Truly continuous monitoring and measurement.

When the measurement and test bias are the same, no switching takes place as the voltages are continuously applied.

A measurement range of  $10^6$  to  $10^{14}$   $\Omega$  remains at the heart of the system.

Measurements from all 256 channels can be taken in <8 seconds.

Capable of testing to all existing test specifications IPC - IEC - JNC and other user specifications.

Future-proofed design.

Adaptable and flexible software operating with Windows® 7 and 8.

AutoSIR 2 is available with 64, 128 or 256 channel configurations.

On connection the system runs a self test.

Assuming a 256 channel instrument:

TEST COUPON	No. of Test Points	Max No. of Coupons per Test
IPC B24	4	64
IPC B25 (Bellcore "W" pattern)	15	26
IPC B25A	8	32
IPC B52 / IEC TB57	16	16
NEW IPC B53/IEC B53	4	64

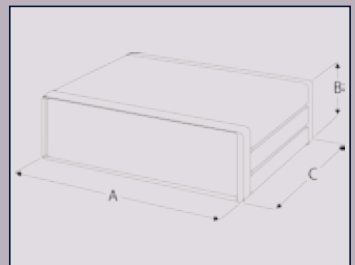
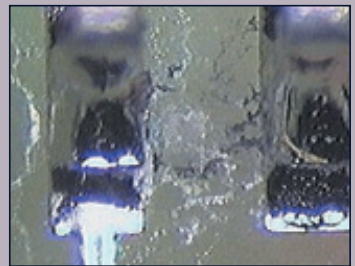
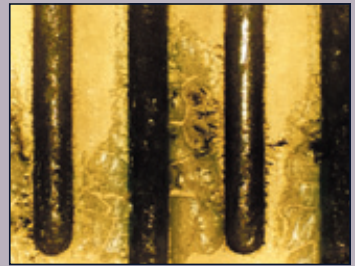
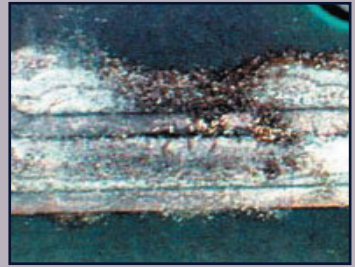
## GEN3 Systems - Setting the Standard



*AutoSIR 2 with optional test rack and computer*

# Specifications

Number of Channels	64 or 128 or 256
Measurable range of insulation resistance	$10^6$ to $10^{14} \Omega$
Internal Bias Voltage	0V; 3.3V; 5V; 10V; $\pm 50V$ & $\pm 100V$
External Bias Voltage	1V to 1000V
Measurement Method	Continuous on all selected channels
Measurement Test Intervals	Fully selectable from minimum of 1 Minute
Measurement Time	256 channels <8 seconds
Maximum Test Duration	Unlimited
Current measuring cable	Fully shielded
System status LED'S	Power Communications Low resistance Temperature and humidity Bias Voltage Out of Range / Failure
Data collection	Sampling Time, Elapsed Time, Resistance, Current, Applied Voltage, Temperature, Humidity
Applicable OS	Windows® 7 & 8
Power requirement	110V / 230V Switchable mains single phase
Dimensions	[A] 515mm (20½") [B] 170mm (6½") [C] 390mm (15")
Weight	10.5 kgs (371 lbs)



[www.gen3systems.com](http://www.gen3systems.com)

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