

- Automated software based quartz crystal temperature test system

- Up to 4 disc pallets can be stacked

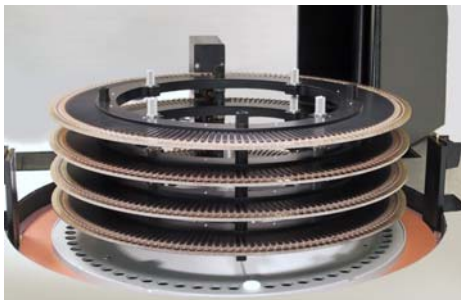
- Standard SMD sizes available include:

SMD TYPE	DISC CAPACITY	TOTAL CAPACITY/ PER CHAMBER
5 x 7mm	140	560
4.5 x 8mm	140	560
3.5 x 6mm	160	640
3.2 x 5mm	160	640
2.5 x 4mm	160	640
2.5 x 3.2mm	160	640
2.0 x 2.5mm	160	640
HC-49USMD	100	400
Leaded	100	400

- Custom SMD sizes available
- High speed fan mounted inside the chamber cover provides fast temperature soak time
- Disc pallet platform can be easily integrated into dedicated machine for automatic loading / unloading SMD devices



- Measures over 75 different parameters
- Parameter and curve fit characteristics checked against easy to define QC limits
- Crystals of different frequencies tested in a single temperature run
- All data published in a *Microsoft Access*™ data base and can be exported to *Microsoft Excel*™ for custom data analysis
- Printouts are generated using *Crystal Reports*®



SPECIFICATIONS

250B-1 Frequency Range:
250C Frequency Range:

15 KHz to 220 MHz
15 KHz to 500 MHz

Frequency Correlation:

± 1 ppm* at series (typical)

Crystal Power:

1 nW to 1000 uW (1 MHz to 50 MHz)
1 nW to 500 uW (>50 MHz to 200 MHz)

Temperature Stability:

± 0.1° C

* Proprietary measurement and calibration algorithms provide correlation to industry standard crystal measurement equipment.

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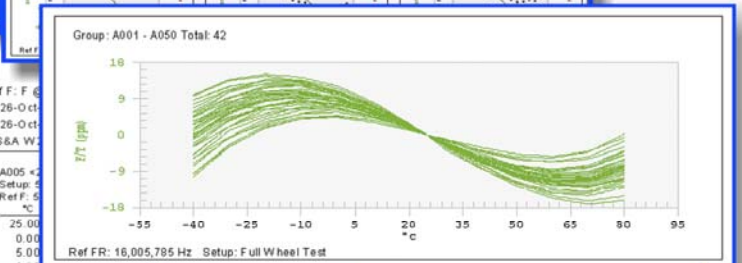
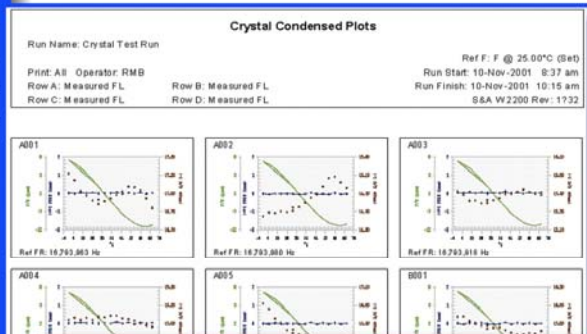
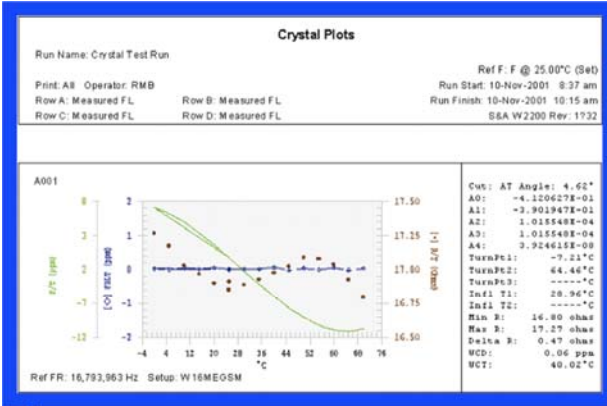
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SYSTEM CONFIGURATION

- S&A 250B-1 or 250C Network Analyzer
- S&A 2451 Switch Controller
- S&A 4220 Temperature Test Chamber (LCO₂, LN₂, or Mechanical Refrigeration Cooling)
- IEC-444 Pi-Network Test Head

- Windows® based System Software
- Printer (Optional)
- Computer Requirements:
 Minimum 500 MHz Pentium III
 One full PCI slot with +3.3V & 5V power,
 Windows 98®

SAMPLE REPORTS



Crystal Curvfit Summary

Run Name: Example Run

Ref F: F @ 25.00°C (Set)

Print All Operator: Row A: Measured FL, Row B: Measured FL, Row C: Measured FL, Row D: Measured FL

Run Start: 26-Oct-2001 4:51 pm
Run Finish: 26-Oct-2001 6:34 pm
S&A W2200 Rev: 1725

Setup: 12megw2
Reference F: 12,795,900 Hz

Crystal	Serial #	Setup File Parameters	Crystal Data	Curvfit Parameter
A001	<2a001>	Setup: 12megw2 Ref F: 12,795,917 Hz
A002	<2a002>	Setup: 12megw2 Ref F: 12,795,955 Hz
A003	<2a003>	Setup: 12megw2 Ref F: 12,795,917 Hz
A004	<2a004>	Setup: 12megw2 Ref F: 12,795,942 Hz
A005	<2a005>	Setup: 12megw2 Ref F: 12,795,917 Hz

Crystal Tabular

Run Name: Example Run

Ref F: F @ 25.00°C (Set)

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A004	<2a004>	Setup: 12megw2 Ref F: 12,795,942 Hz
A005	<2a005>	Setup: 12megw2 Ref F: 12,795,917 Hz

Crystal Setup File Parameters

Run Name: Example Run

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Reference F: 12,795,900 Hz

STATUS	FR	CO	BB	Q	CL	L	PWR	TEMP	F/T
...

Crystal Failures Only

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