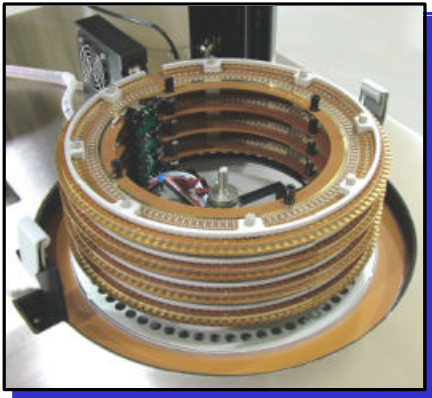




W-2800B SMD DISC PALLET OSCILLATOR TEMPERATURE TEST SYSTEM

- Automated, software-based oscillator, VCXO and TCXO temperature test system
- Measures over 50 different tests
- Precision time interval analysis of oscillator startup characteristics
- Parameter and curve fit characteristics are checked against easy to define QC limits
- Oscillators of different frequencies can be tested in a single temperature run
- All data is published in a *Microsoft Access™* data base
- Data can be exported to *Microsoft Excel™* for custom data analysis
- Oscillator part number can be used to set complete measurement parameters, QC limits, temperature test points and data printouts



- Chamber holds four disc pallets for a total of up to 512 parts
- Standard SMD sizes available include 2.0x2.5, 2.5x3.2, 3.2x5, 3.5x6, 5x7, 5x7.5, 9x14, DIP (full & half)
- Measures LVDS, PECL, ECL, CMOS, and TTL devices
- Load circuitry easily changed via plug-in module

SPECIFICATIONS

Oscillator Frequency Range:	10 KHz to 1 GHz
Oscilloscope Analog Bandwidth:	600 MHz (rise time 1% error at 5 nsec)
Oscillator X10 Probe Bandwidth:	1 KHz to 850 MHz (2.5 K Ohm Max Impedance)
Oscillator X50 Probe Bandwidth:	1 KHz to 500 MHz (12.5 K Ohm Max Impedance)
Temperature Stability:	± 0.1° C
Temperature Range:	-55° C to 125° C (MR or LCO ₂) -65° C to 125° C (LN ₂)

SAUNDERS & ASSOCIATES, INC.

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E-Mail sales@saunders-assoc.com - World Wide Web <http://www.saunders-assoc.com>

SYSTEM CONFIGURATION

- **S&A Probe Test Head**
- **Computer** (minimum Pentium III, 2 PCI slots, 1 full size PCI slot)
- **S&A 4220 Temperature Test Chamber** (LCO₂, LN₂ or MR option)
- **S&A MFC-100 Card** (requires full size PCI slot)
- **Oscilloscope**
- **GPIO Card**
- **20A Power Supply**
- **Windows® based System Software**
- **Printer (optional)**

SAMPLE REPORTS

Oscillator Group Summary

Run Name: example run 0 to 80 degrees
 Run Start: 02-May-2003 5:40 pm
 Print As: Operator Run Finish: 02-May-2003 7:30 pm
 Ref: F @ 25.00°C (Std) S&A W2000 Rev: 0701 Report: 1700

Setup: C:\Program Files\Saunders & Associates\Q2000\data\MMHz.gsm
 Reference F: 40,980,000 Hz Vco: 5.000 V Vco: 5.000 V Trigger: CMOS Level: 1.000 V
 Group S Default

Setup: C:\Program Files\Saunders & Associates\Q2000\data\MMHz.gsm
 Reference F: 8,162,000.0 Hz Vco: 5.000 V Vco: 5.000 V Trigger: CMOS Level: 1.000 V
 Group S Default
 A001 A002 A003 A004 A005 A006

Oscillator Tabular

Run Name: example run 0 to 80 degrees
 Run Start: 02-May-2003 5:40 pm
 Print As: Operator Run Finish: 02-May-2003 7:30 pm
 Ref: F @ 25.00°C (Std) S&A W2000 Rev: 0701 Report: 1700

4001	4002	4003	4004	4005
Setup: 40MHz	Setup: 40MHz	Setup: 40MHz	Setup: 40MHz	Setup: 40MHz
Ref F: 40,987,800 Hz	Ref F: 40,987,790 Hz	Ref F: 40,987,720 Hz	Ref F: 40,985,181 Hz	Ref F: 40,984,188 Hz
% F1 ppm	% F1 ppm	% F1 ppm	% F1 ppm	% F1 ppm
0.00	0.01	-0.07	0.02	0.00
14.36	21.52	0.01	-0.76	20.27
5.01	1.70	20.02	5.01	-8.86
16.80	577.8	20.77	10.00	0.11
16.82	26.88	20.77	15.02	1.58
18.88	-8.85	20.52	19.99	1.20
20.01	0.00	20.52	25.01	0.00
26.87	0.56	20.37	29.87	1.48
35.00	1.10	20.52	35.00	-2.80
44.00	1.86	20.27	40.01	-3.91
44.88	2.89	20.02	44.88	-4.84
50.00	4.84	20.27	49.99	-6.20
50.82	8.89	20.02	55.02	-3.20
80.01	9.33	20.02	60.01	-4.85
85.83	12.41	19.77	65.03	-1.18
70.01	18.82	19.77	70.00	-1.25
75.82	21.21	19.77	75.01	1.40
78.88	26.45	19.77	79.99	5.02

Oscillator Temperature Test

Ref: F @ 25.00°C (Actual)
 Run Start: 22-May-2002 5:23 pm
 Run Finish: 23-May-2002 12:25 am
 S&A W2200 Rev: 2.21

TCXO Crystal perturbation test

Setup: Test Device C

Run Date: 17-Nov-2002 2:44 pm
 Description: CMOS 60 pF Load
 Reference F: 40,980,000 Hz
 Print As:

STAT	PH	PPH	PPM	PPB
1	Pass	-1.0	0.0	0.0
2	Pass	-1.0	0.0	0.0
3	Pass	-1.0	0.0	0.0
4	Pass	-1.0	0.0	0.0

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