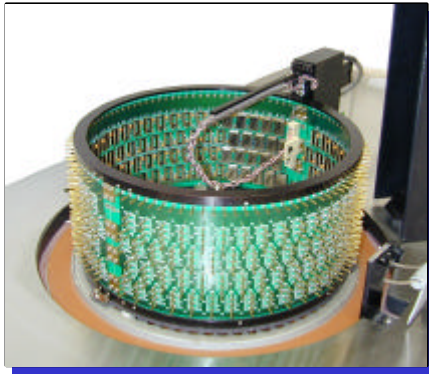




W-2800 OSCILLATOR TEMPERATURE TEST SYSTEM

- Automated, software-based oscillator VCXO and TCXO temperature test system
- Measures over 50 different tests
- 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
- Printouts are generated using *Crystal Reports®*
- Oscillator part number can be used to set complete measurement parameters, QC limits, temperature test points and data printouts



- Standard four row test wheel holds 196 devices and accepts 8-pin or 14-pin device packages and SMD test sockets
- Measures ECL, TTL, CMOS, HMOS and 3.3 V & 5 V devices with square wave and sine wave outputs
- Load circuitry easily changed via plug-in module

SPECIFICATIONS

Frequency Range:	10 KHz to 400 MHz
Temperature Stability:	$\pm 0.1^{\circ}$ 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

- **FET Probe Test Head**
- **Computer**
(minimum Pentium III, 4 PCI slots)
- **S&A 4220 Temperature Test Chamber**
(LCO₂, LN₂ or MR option)
- **TTL I/O Card**
- **Oscilloscope**
- **Frequency Counter Card**
- **Voltmeter / Power Supply Card**
(requires full size PCI slot)
- **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
 Run Finish: 02-May-2003 7:30 pm
 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
 Run Finish: 02-May-2003 7:30 pm
 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: 40,988,188 Hz
% F1 ppm	% F1 ppm	% F1 ppm	% F1 ppm	% F1 ppm
0.00	0.01	-1.07	20.02	0.00
5.01	5.00	1.70	20.02	5.01
15.00	577.8	20.77	10.00	0.11
16.52	25.89	20.77	15.02	1.56
18.98	-8.5	20.52	19.99	1.20
25.01	0.00	20.52	25.01	0.00
26.87	0.56	20.37	26.87	-1.48
35.00	1.10	20.52	35.00	-2.80
44.00	1.86	20.37	44.01	-3.91
46.98	2.89	20.52	46.98	-4.94
50.00	4.84	20.37	49.99	-6.20
55.02	8.69	20.52	55.02	-1.16
60.01	9.33	20.52	60.01	-4.85
65.03	12.41	19.77	65.03	-1.18
70.01	16.82	19.77	70.00	-1.25
75.02	21.21	19.77	75.01	1.40
79.98	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 W2000 Rev: 2.21

TCXO Crystal perturbation test

Setup: Test Series C

Run Date: 17-Nov-2002 2:44 pm
 Run: 6.000 MHz Vco: 5.000 Vdc
 Reference F: 40,988,200 Hz
 Trigger: F1C Level: 1.000 Vdc
 S&A W2000 Rev: 1.00 Report: 1.00

STAT	DR	View	Waveform
1	Pass	-1.0	
2	Pass	-1.0	
3	Pass	-1.9	
4	Pass	-1.0	

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