



MONITOR PRODUCTS COMPANY INC

SM996 M SM997

Miniature, Ceramic, Surface Mount, Tristate HCMOS Oscillators

APPLICATIONS

- M Wireless RF
- M PCMCIA
- M Cameras
- M Disk Drives
- M PDAs

FEATURES

- M Ceramic/seam sealed package
- M TTL/CMOS compatible
- M Reflow solderable at 260°C for 10 secs
- M Tristate enable/disable
- M Can be used as standard HCMOS oscillator by not connecting Pin #1
- M 16mm tape & reel: 500pcs/reel std or Bulk [<500pcs]

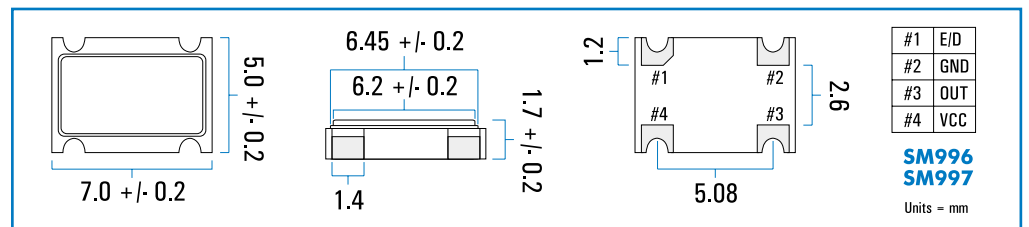


Monitor Products has a proven track record as a pioneer manufacturer in the frequency control market. If our extensive selection of standard and engineered crystals and oscillators does not meet your spec, we will work with you towards a customized solution.

Monitor Products is one of over 90 wholly-owned subsidiaries of Bowthorpe plc, an international technology group focused on the design, development, manufacture and marketing of specialist electronic products. (www.bowthorpe.com)

ELECTRICAL SPECIFICATIONS

	SM996	SM997
Frequency Range	1.5 to 70.0 MHz	
Frequency Stability	± 100ppm standard (± 25ppm available)	
Oper Temp Range	0°C to 70°C standard (-40°C to 85°C available)	
Load Capacitance	15 pf	
Supply Voltage	5.0 VDC ± 0.5 V	3.3 VDC ± 0.3 V
Input Current	1.5 ~ 20.0 MHz: 20 mA max 20.1 ~ 70.0 MHz: 40 mA max	1.6 ~ 20.0 MHz: 10 mA max 20.1 ~ 70.0 MHz: 20 mA max
Symmetry	60/40% at 1/2 Vcc max 55/45% available	60/40% at 1/4 Vcc max 55/45% available
Rise and Fall Time	1.5 ~ 25.0 MHz: 10 nS max; 25.1 ~ 70.0 MHz: 8nS max	
Start Up Time	5.0 mS max	
Logic '0' Level	10% of Vcc max	
Logic '1' Level	80% of Vcc min	
E/D Phase Delay	100 nS max	



Monitor Products Company Inc reserves the right to make changes to its products and product specifications without notice. No liability is assumed as a result of their use or application.

MONITOR PRODUCTS COMPANY INC

Designers and manufacturers of quality frequency control devices since 1927

[09.09.99]

A BOWTHORPE company



CORPORATE OFFICE / FACTORY

502 Via del Monte, Oceanside, CA 92054
Tel: 760 433-4510 Fax: 760 434-0255

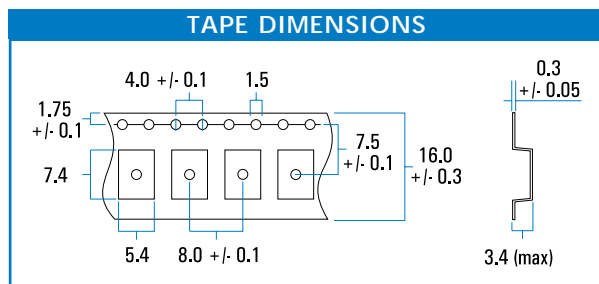
REGIONAL SALES OFFICE

3415 Custer Road, Suite 117, Plano, TX 75023
Tel: 972 758-8687 Fax: 972 758-7574

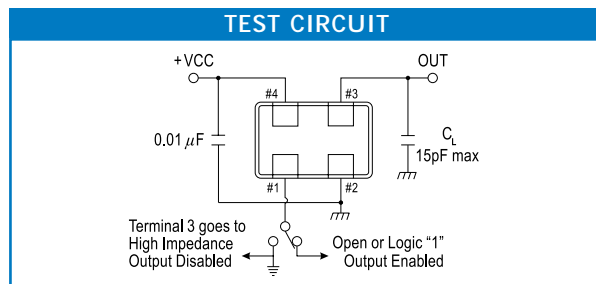
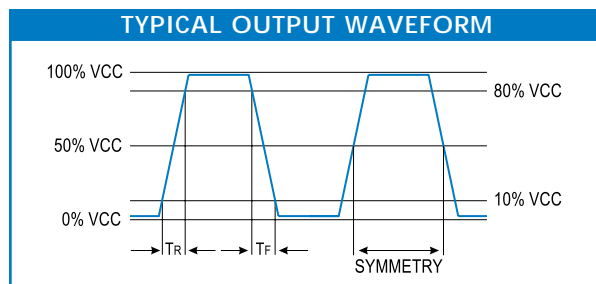
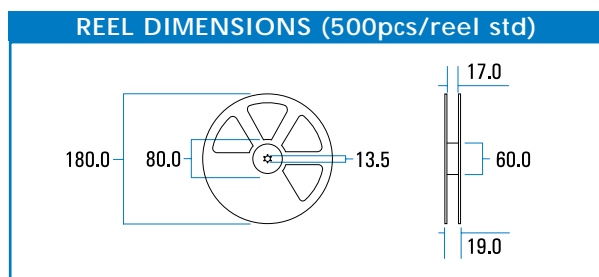
www.monitor-products.com

ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

Operating Temperature Range	01C to 701C standard (-401C to 851C available)
Storage Temperature Range	-551C to 1251C
Vibration	MIL-STD-202F Method 204, 35G, 50 to 2000 Hz
Shock	MIL-STD-202F Method 213B Test Cond E, 1000G, 1/2 Sine Wave
Humidity	85% RH, 851C, 48 Hours
Hermetic Seal	Leak Rate 2×10^{-8} ATM-cm ³ /sec max
Solderability	MIL-STD-202F Method 208E
MIL-O-55310	Exceeds environmental and electrical specifications of equivalent MIL-O-55310
Packaging	16mm Tape & Reel (500pcs/reel standard, or Bulk < 500pcs)



Units : mm



HOW TO ORDER

SERIES	SYMMETRY	FREQUENCY STABILITY	TEMP RANGE	PACKAGING	FREQUENCY
SM996 (5.0V) SM997 (3.3V)	21 = 50/50 ±10% 22 = 50/50 ±5%	B = 100 ppm* C = 50 ppm D = 30 ppm E = 25 ppm	2 = 01C ~ 701C 3 = -201C ~ 701C 5 = -401C ~ 851C 7 = -101C ~ 701C*	A = Bulk (< 500pcs) E = Tape & Reel* (500pcs/reel std)	
SM99621B2E @ 19.44 MHz =	21	B	2	E	19.44
SM99722E2A @ 22.0 MHz =	22	E	2	A	22.0

Sample Part Numbers

* Standard

Call factory for additional options. Use full descriptive part number when ordering. Parts will be marked with series and frequency only.

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