

Designing and manufacturing innovative frequency control devices since 1927

Miniature, Ceramic, Surface Mount, Tristate HCMOS Oscillators

SM996 - SM997



APPLICATIONS

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

Monitor 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.

FEATURES

- Ceramic/seam sealed package
- TTL/CMOS compatible
- Reflow solderable at 260°C for 10 seconds
- Tristate enable/disable

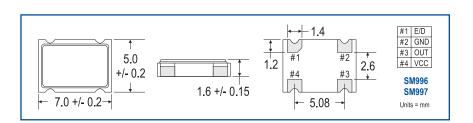
CDECIFIC ATIONS

- Can be used as standard HCMOS oscillator by not connecting Pin #1
- 16mm tape & reel: 500pcs/reel Std or Bulk [<500pcs]

CMACO

SPECIFICATIONS	SM996	SM997
Frequency Range	1.5 ~ 100.0 MHz	1.5 ~ 125.0 MHz
Supply Voltage	5.0 VDC \pm 0.5 V	3.3 VDC \pm 0.3 V
Symmetry	60/40% at 1/2 Vcc max 55/45% available	60/40% at 1/4 Vcc max 55/45% available
Input Current (MHz: mA max)	1.5 ~ 20.0 : 20 20.1 ~ 70.0 : 40 70.1 ~ 80.0 : 60	1.6 ~ 20.0 : 10 20.1 ~ 70.0 : 20 70.1 ~ 90.0 : 35 90.1 ~ 120.0 : 45
Rise & Fall Time (MHz: nS max)	1.5 ~ 25.0 : 10 25.1 ~ 70.0 : 8	1.5 ~ 25.0 : 10 25.1 ~ 70.0 : 8 70.0 ~ 120.0 : 5
Load Capacitance	15 pF standard (50 pF available)	
Start up Time	5.0 mS max	
Frequency Stability	± 100ppm standard (± 25ppm available)	
Oper Temp Range	0°C to 70°C standard (-40°C to 85°C available)	
Logic "0" Level	10% of Vcc max	
Logic "1" Level	80% of Vcc min	
E/D Phase Delay	100 nS max	

OBLOOC



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

08-21-01

502 VIA DEL MONTE, OCEANSIDE, CA 92054 TEL: 760.433.4510

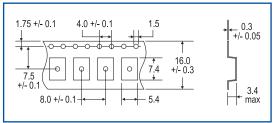
3.4510 **FAX**: 760.434.0255 **WWW.MONITOR-PRODUCTS.COM**



SM996 • SM997

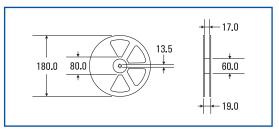
ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

Operating Temp Range	0°C to 70°C standard (-40°C to 85°C available)	
Storage Temp Range	-55°C to 125°C	
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, 85°C, 48 Hours	
Hermetic Seal	Leak Rate 2 x 10 ⁻⁸ ATM-cm ³ /sec max	
Solderability	MIL-STD-202F Method 208E	
MIL-0-55310	Exceeds environmental and electrical specifications of equivalent MIL-0-55310	
Packaging	16mm Tape & Reel (500pcs/reel standard, or Bulk <500pcs)	

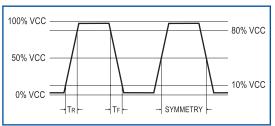


TAPE DIMENSIONS

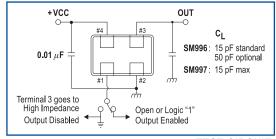
Units : mm



REEL DIMENSIONS (500pcs/reel std)



TYPICAL OUTPUT WAVEFORM



TEST CIRCUIT

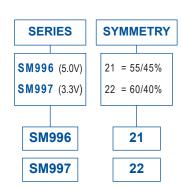


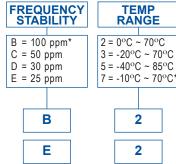
* Standard

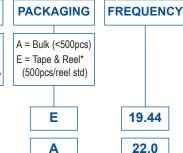
Sample Part Numbers

SM99621B2E @ 19.44 MHz

SM99722E2A @ 22.0 MHz







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

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