

## Half-Size, TTL and HCMOS Compatible Clock Oscillators

# 975H • 975HHT\* • 985H • 985HHT\*

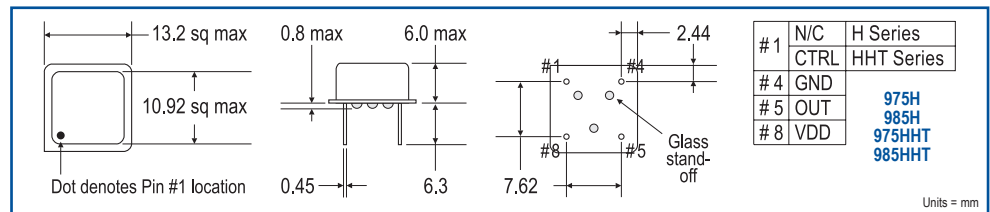
\*Tristate / Enable-Disable

Monitor Products' 975H/HHT and 985H/HHT series of half-size clock oscillators combine state-of-the-art, thick film, hybrid technology with precision manufacturing, resulting in products of unsurpassed accuracy and reliability. Their all-metal, resistance-welded cases ensure environmental protection and shielding to minimize EMI/RFI.



### FEATURES

- Low power consumption
- Surface mount option
- Tristate function on 975HHT & 985HHT



### APPLICATIONS

- Systems clock
- Disk drives
- Cameras
- Computer applications
- Measuring instruments
- Communications equipment

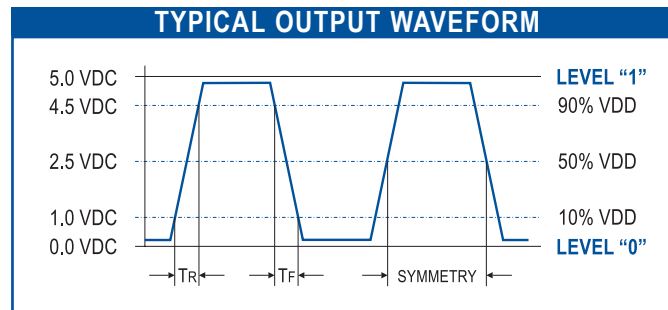
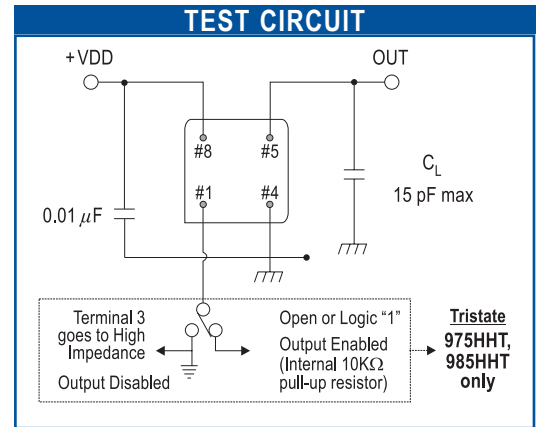
Monitor Products has a proven track record as a pioneer manufacturer in the frequency control market. If our extensive selection of standard and engineered crystals and oscillators does not meet your spec, we will work with you towards a customized solution.

ELECTRICAL SPECIFICATIONS	975H HCMOS	975HHT HCMOS/Tristate	985H HCMOS	985HHT HCMOS/Tristate
<b>Supply Voltage</b>	5.0 VDC $\pm$ 0.5 V		3.0 VDC $\pm$ 0.3 V	
<b>Frequency Range</b>	1.0~100.0 MHz		1.0~70.0 MHz	
<b>Load Capacitance</b>	1.0 ~ 49.9 MHz = 50pF 50.0 MHz & up = 5 TTL or 10 LSTTL or 15pF max		5 TTL or 10 LSTTL or 15pF max	
<b>Input Current (max)</b>	1.0 ~ 20.0 MHz: 20 mA 20.1 ~ 70.0 MHz: 40 mA 70.1 ~ 100.0 MHz: 60 mA		1.0 ~ 20.0 MHz: 10 mA 20.0 ~ 70.0 MHz: 20 mA	
<b>Rise &amp; Fall Time (max)</b>	1.0 ~ 25.0 MHz: 10 nS 25.1 ~ 70.0 MHz: 6 nS 70.1 ~ 100.0 MHz: 4 nS		1.0 ~ 25.0 MHz: 10 nS 25.1 ~ 70.0 MHz: 6 nS	
<b>Operating Temp Range</b>	0°C ~ 70°C standard (extended temp ranges available - call factory for other options)			
<b>Symmetry</b>	60%/40% @ 1/2 Vdd max std (55%/45% available)			
<b>Freq Stability</b>	$\pm$ 100 ppm standard ( $\pm$ 25 ppm available)			
<b>Logic 0 Level</b>	10% x Vdd min			
<b>Logic 1 Level</b>	90% x Vdd max			

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## ENVIRONMENTAL PERFORMANCE SPECIFICATIONS

<b>Oper Temp Range</b>	0°C~70°C (call factory for other ranges)
<b>Storage Temp Range</b>	-55°C~125°C
<b>Vibration</b>	MIL-STD-202F, Method 204, 35G, 50 to 2000 Hz
<b>Shock</b>	MIL-STD-202F Method 213B, Test Cond E, 1000G, 1/2 Sine Wave
<b>Humidity</b>	85% RH, 85°C, 48 Hours
<b>Hermetic Seal</b>	Leak Rate $2 \times 10^{-8}$ ATM-cm <sup>3</sup> /sec max
<b>Reflow Solderability</b>	260°C, 10 secs max
<b>Solderability</b>	MIL-STD-202F, Method 208E



## PART NUMBERING KEY

	SERIES	SYMMETRY	FREQUENCY STABILITY	TEMPERATURE RANGE	PACKAGING	FREQUENCY (MHz)
	975H = 5.0V 975HHT = 5.0V, Tristate 985H = 3.0V 985HHT = 3.0V, Tristate	1 = 60 / 40 % 2 = 55 / 45 %	B = 100ppm* C = 50ppm E = 25ppm	2 = 0°C~70°C* 3 = -20°C~70°C	A = Anti-static insertion tubes* G = SMD (gull-wing) J = SMD (J-lead) S = SMD (glass epoxy base) X = Customer spec	
Sample Part Numbers:						
975H1B2A @ 44.000 MHz =	975H	1	B	2	A	44.000
975HHT2C2A @ 80.000 MHz =	975HHT	2	C	2	A	80.000
985H2B2A @ 36.000 MHz =	985H	2	B	2	A	36.000
985HHT1B3A @ 66.666 MHz =	985HHT	1	B	3	A	66.666

\* Standard

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