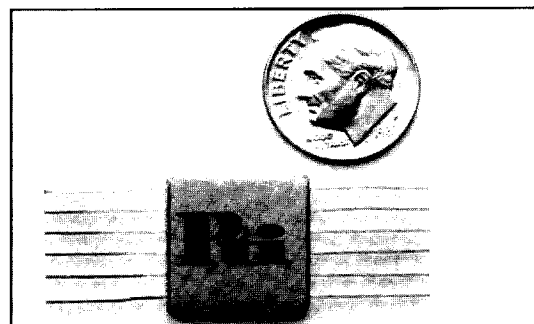
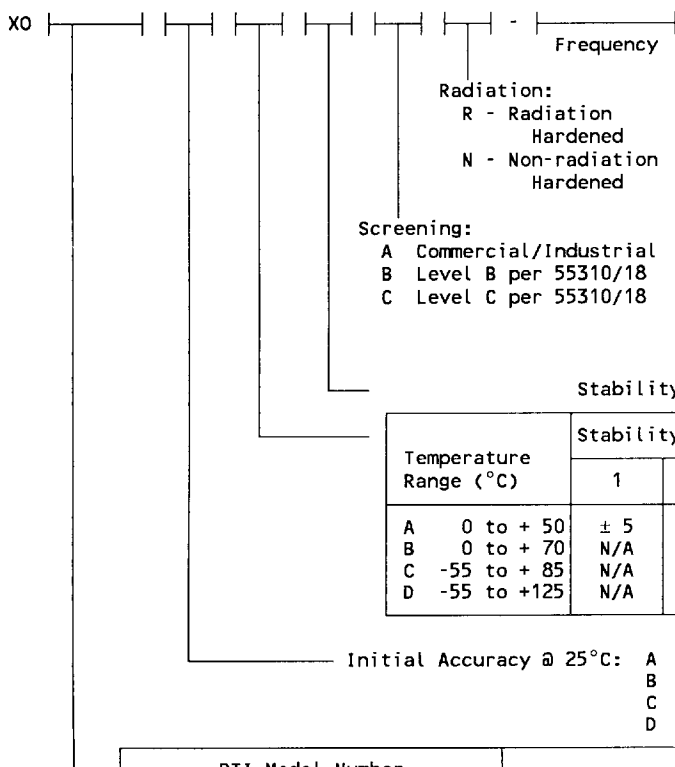


Low Profile Hybrid Clock Oscillators

PTI has developed a series of hybrid clock oscillators with very low profiles. The oscillators are available in surface mounted packages as well as standard 4 and 14 pin dual in-line packages. The oscillators are available from 500 Hz to 70 MHz with HCMOS output. TTL and ECL versions are also available. PTI employs three separate design schemes to accommodate the extensive range of frequencies. A divider network is utilized for frequencies less than 8 MHz; the fundamental resonance of the crystal is utilized for 8 MHz to 24 MHz; and the higher frequencies are attained by using overtone frequencies. An input current of less than 20 mA is achieved for frequencies less than 24 MHz and less than 60 mA for 24 MHz to 70 MHz. Optional frequency accuracy, stability and screening levels can be selected depending on the application. Radiation hardening is also available. To order any of these parts from PTI, simply give the PTI sales engineer the model number, desired option codes from the charts below and frequency in the following configuration.



Stability Versus Temperature

Temperature Range (°C)	Stability Over Temperature Options (ppm)				
	1	2	3	4	5
A 0 to + 50	± 5	±10	±25	±50	±100
B 0 to + 70	N/A	N/A	±25	±50	±100
C -55 to + 85	N/A	N/A	N/A	±50	±100
D -55 to +125	N/A	N/A	N/A	±50	±100

Initial Accuracy @ 25°C:

A	± 50 ppm
B	± 25 ppm
C	± 15 ppm
D	± 10 ppm

PTI Model Number			Frequency Range	Input Current (ma max)
12 Pin Flatpack	14 Pin DIL	4 Pin DIL		
1500C	1600C	1700C	10 kHz to 8 MHz	20
1510C	1610C	1710C	8 MHz to 24 MHz	20
1520C	1620C	1720C	24 MHz to 70 MHz	60

Note: For detail and dimensions on packages, see facing page.

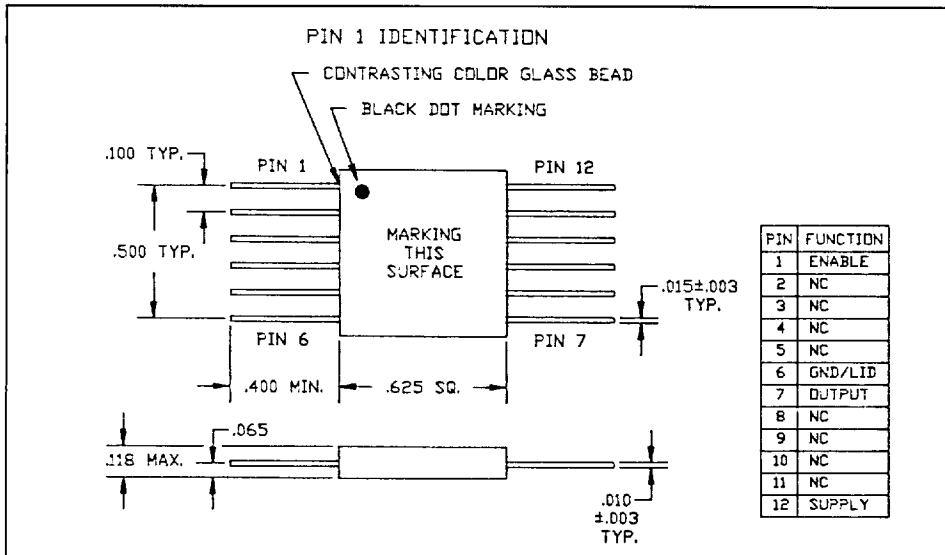
For example, an XO 1510C B C 4 B R - 10.0 MHz refers to the following:

XO 1510C	-	8 to 24 MHz design, 12 pin flatpack
B	-	Initial accuracy ± 25 ppm
C	-	Temperature range -55 to +85°C
4	-	Temperature stability of ± 50 ppm
B	-	Screening to Level B per MIL-O-55310/18
R	-	Radiation hardened
10.0 MHz	-	Operating frequency 10.0 MHz

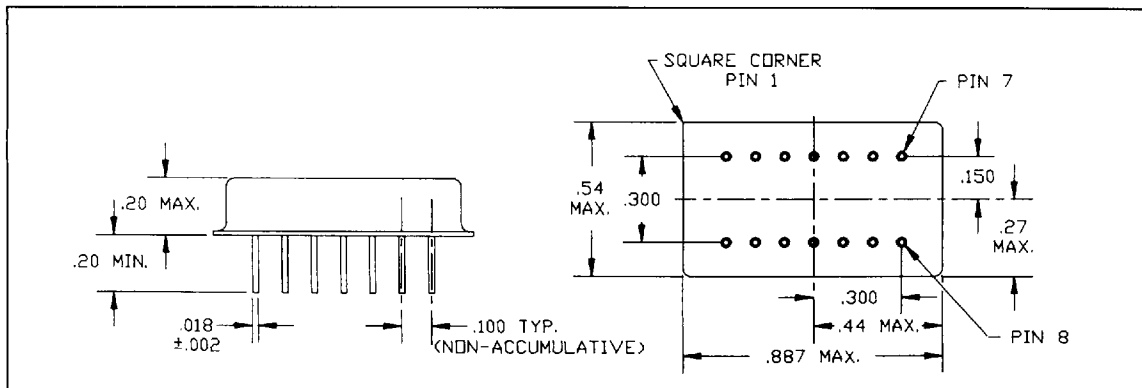


OSCILLATORS

12 PIN FLATPACK

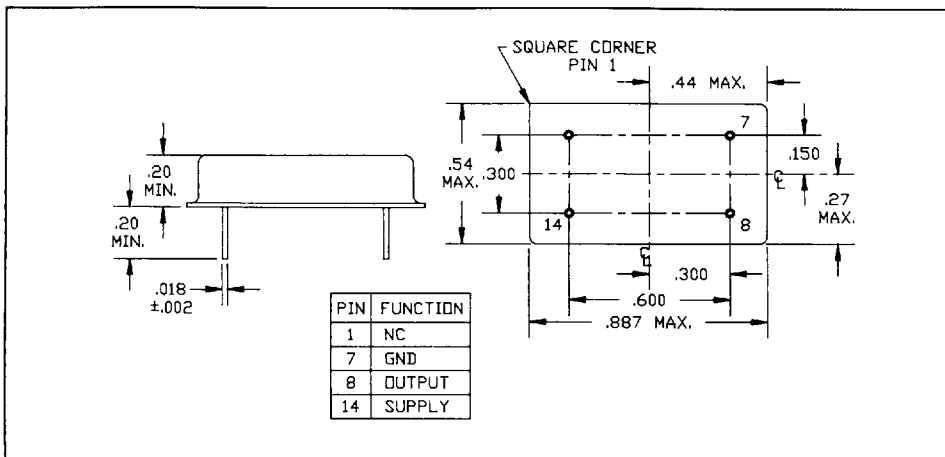


14 PIN DIL



See optional pin functions on page 70.

4 PIN DIL



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