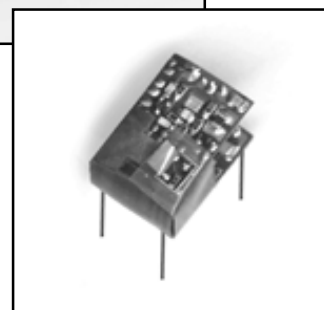
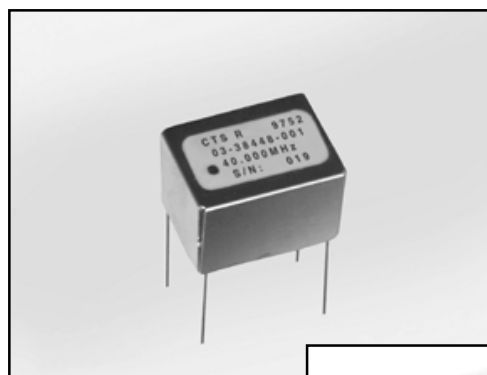


Features:

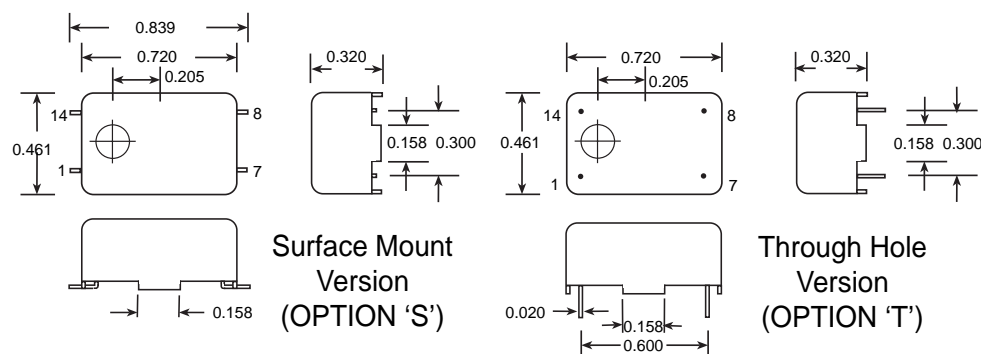
- Frequency Range up to 120 MHz
- Stratum 3 Performance
- Surface Mount or Thru Hole Option
- Miniature Package
- Wide Operating Temperature Range

The Model 111 is a DIP Packaged OCXO that is available over a wide range of stabilities and temperatures. It is ideal for communications as a Stratum 3 reference or as a local oscillator for higher frequency multiplication. The Model 111 is made possible by adjustments made in packaging high precision crystals into smaller foot prints.



Electrical Characteristics:

NOMINAL FREQUENCY:	10.0 MHz to 120.0 MHz
CALIBRATION TOLERANCE:	Set to nominal via EFC
STABILITY	
FREQUENCY vs. AMBIENT:	See chart
FREQUENCY VS. INPUT VOLTAGE:	$\pm 5 \times 10^{-8}$ for 5% change
FREQUENCY vs. LOAD:	$\pm 5 \times 10^{-8}$ for 5% change
FREQUENCY vs. TIME:	See chart
WARM-UP:	3 min. to within $\pm 1 \times 10^{-7}$ of 60 min. freq.
POWER INPUT	
OSCILLATOR VOLTAGE/OVEN VOLTAGE:	See chart +5V to +15V
INPUT POWER:	TURN-ON - 4.0 max; IDLE @ +25C - 1.5W max
WAVE FORM	
OUTPUT TYPE:	See chart Sine or HCMOS
LOAD:	Sine - 50 Ohms; Squarewave - up to 50pF
FREQUENCY DEVIATION	
CONTROL VOLTAGE:	0V to +5V; Center Freq @ +2.5V ± 0.5 V
FREQUENCY ADJUSTABILITY:	Sufficient for 10 yrs.
TUNING SLOPE:	Positive
MECHANICAL	
PIN CONNECTIONS:	See outline
FINISH:	Nickel-Silver
ENVIRONMENTAL	
OPERATING TEMP:	See chart
STORAGE TEMP:	-40° TO +85°C



Pin Connections

PIN	FUNCTION
1	VCXO
7	GND.
8	OUTPUT
14	SUPPLY V

Mechanical Specifications:

Case:

CRS, Hot Tin Dipped

Leads:

Nickel plated with solder coating

Seal:

Solder seal

Leak Test:

Leak rate less than 5×10^{-5}
atmosphere-cc/sec of helium

Solderability:

95% solder coverage, using RMA flux 63
SN / 37 Pb solder at $+245^{\circ}\text{C} \pm 5^{\circ}\text{C}$

Temperature:

Operating: See chart

Storage: -55° to 85°C

Reflow: 240°C , 10 Sec

Vibration:

10 G's rms, 20 to 500 Hz

Mechanical Shock:

100 G's 5ms pulse (3 shock/plane)

Ordering Information:

Model Type 111

Temp. Range		Stability		Aging		Output		Supply V		Package		Freq. in MHz		
Temp Stability		±5 x 10 ⁻⁹	±1 x 10 ⁻⁸	±2 x 10 ⁻⁸	±5 x 10 ⁻⁸	±1 x 10 ⁻⁷	1 st Year Aging		Code		Output		Code	
Temp Range	Code	A	B	C	D	E	±0.5 ppm	A			HCMOS	H		
0° to 50° C	A	X	X	X	X	X	±0.3 ppm	B			Sinewave	S		
0° to 70° C	B		X	X	X	X	±0.1 ppm	C						
-30° to 70° C	C			X	X	X								
-40° to +85° C	D					X								
							Pkg. Type				Supply Volt		Code	
							T	Thru Hole			+12V	A		
							S	SMT			+5V	B		
											+15V	C		

Note: Not all Options are Available at all Frequencies

Note: Not all Options are Available at all Frequencies.
Consult Factory for Details.