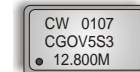
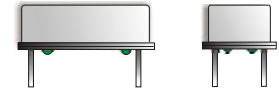


CRYSTAL CONTROLLED OSCILLATORS

14 PIN DIP 5.0V STRATUM 3 OCXO



CGOV5S3

DESCRIPTION

The Connor-Winfield CGOV5S3 is a hermetically sealed 14 Pin DIP 5.0V Oven Controlled Crystal Oscillator (OCXO) with an HCMOS output. The CGOV5S3 is designed for Stratum 3 applications requiring low jitter and tight frequency stability.

FEATURES

- FREQUENCY ADJUST
- 5.0V OPERATION
- LOW JITTER <3pS RMS
- TEMPERATURE STABILITY ±0.25ppm
- FREQUENCY TOLERANCE OF ±4.6ppm OVER TEN YEARS

ORDERING INFORMATION

CGOV5S3 - 12.800MHz

OCXO
SERIES

CENTER
FREQUENCY

ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-40	-	85	°C	
Supply Voltage	(Vcc)	-0.5	-	7.0	Vdc	
Control Voltage	(Vc)	-0.5	-	7.0	Vdc	

OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Center Frequency	(Fo)		12.352 12.800 16.384 19.440		MHz	
Frequency Stability		-0.25	-	0.25	ppm	1
Total Frequency Tolerance		-4.6	-	4.6	ppm	2
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	4.75	5.00	5.25	Vdc	
Supply Current	(Icc)	-	-	300	mA	
Jitter (BW=12kHz to 20MHz)		-	-	3	ps rms	
SSB Phase Noise at 10Hz offset		-	-75	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-130	-	dBc/Hz	
Start Up Time: Oscillator		-	-	10	mS	
Warm Up Time		-	-	5	Minutes	3
TDEV @ 1.0 Sec.		-	-	1	nS	
TDEV @ 4.0 Sec.		-	-	2	nS	

INPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Control Voltage Range	(Vc)	0.5	2.18	4.1	Vdc	
Frequency at Vc=0.5 Vdc		-30	-	-18	ppm	4
Frequency at Vc=4.1 Vdc		18	-	30	ppm	4
Slope of Frequency Adjust		5	-	-	ppm/V	
Input Impedance		100k	-	-	Ohm	

HCMOS OUTPUT CHARACTERISTICS

TABLE 4.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pf	
Voltage (High)	(Voh)	4.5	-	-	Vdc	
(Low)	(Vol)	-	-	0.4	Vdc	
Current (High)	(Ioh)	-4	-	-	mA	
(Low)	(Iol)	-	-	4	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%		-	-	6	nS	

PACKAGE CHARACTERISTICS

TABLE 5.0

Package	14 pin DIP, hermetically sealed, grounded case, welded package
---------	--

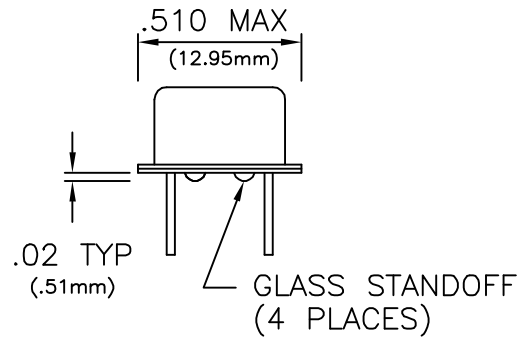
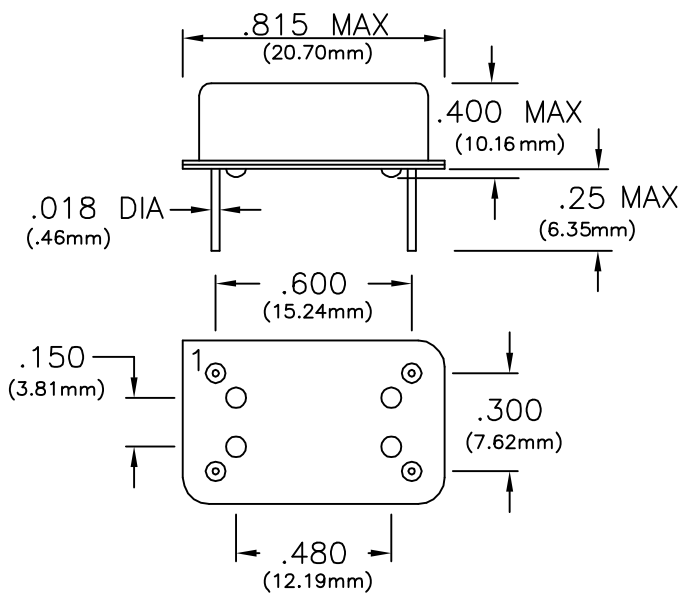
Notes:

- 1) Frequency vs. temperature stability, Vc = 2.18V.
- 2) Inclusive of calibration, operating temperature range, supply voltage change, load change, shock and vibration, 10 years aging, Vc = 2.18V.
- 3) Measured @ 25°C, within 5 minutes, the unit will be within +/-0.1ppm of its reference frequency, measured after 30 minutes of continuous operation at a stable 25°C
- 4) Referenced to Fo @ 25°C, Positive Transfer Characteristic

Specifications subject to change without notice.

CRYSTAL CONTROLLED OSCILLATORS

PACKAGE OUTLINE



PIN	CONNECTION
1	CONTROL VOLTAGE
7	GROUND (CASE)
8	OUTPUT
14	(+) SUPPLY

DIMENSIONS: $\frac{\text{in}}{\text{mm}}$

