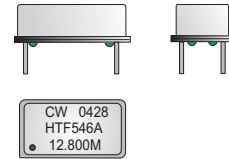


# CRYSTAL CONTROLLED OSCILLATORS

## 5.0V HCMOS TCXO 14 Pin DIP Crystal Oscillator



HTF546A

### ABSOLUTE MAXIMUM RATINGS

TABLE 1.0

PARAMETER	UNITS	MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Storage Temperature		-40	-	85	°C	
Supply Voltage	(Vcc)	-0.5	-	7	Vdc	

### OPERATING SPECIFICATIONS

TABLE 2.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
Frequency Range	(Fo)	12.8	-	100	MHz	
Frequency Tolerance		-4.6	-	4.6	ppm	1
Operating Temperature Range		0	-	70	°C	
Supply Voltage	(Vcc)	4.75	5.0	5.25	Vdc	
Supply Current	(Icc)	-	15	35	mA	
Jitter (BW=10Hz to 20MHz)		-	-	5	ps rms	
Jitter (BW=12kHz to 20MHz)		-	-	1	ps rms	
<b>Typical Phase Noise measurements @ 19.44 MHz</b>						
SSB Phase Noise at 10Hz offset		-	-80	-	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-105	-	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-125	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-135	-	dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-150	-	dBc/Hz	
<b>Typical Phase Noise measurements @ 100 MHz</b>						
SSB Phase Noise at 10Hz offset		-	-60	-	dBc/Hz	
SSB Phase Noise at 100Hz offset		-	-85	-	dBc/Hz	
SSB Phase Noise at 1KHz offset		-	-105	-	dBc/Hz	
SSB Phase Noise at 10KHz offset		-	-125	-	dBc/Hz	
SSB Phase Noise at 100KHz offset		-	-145	-	dBc/Hz	

### HCMOS OUTPUT CHARACTERISTICS

TABLE 3.0

PARAMETER		MINIMUM	NOMINAL	MAXIMUM	UNITS	NOTE
LOAD		-	-	15	pF	
Voltage (High)	(Voh)	3.75	4.5	-	Vdc	
(Low)	(Vol)	-	-	0.5	Vdc	
Current (High)	(Ioh)	-8	-	-	mA	
(Low)	(Iol)	-	-	8	mA	
Duty Cycle at 50% of Vcc		45	50	55	%	
Rise / Fall Time 10% to 90%			3	5	nS	

### PACKAGE CHARACTERISTICS

TABLE 4.0

Package	Hermetically sealed, metal package.
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Note:

- Inclusive of calibration, frequency vs. temperature stability, supply voltage change, load change, shock and vibration, 15 years aging.

### DESCRIPTION

The Connor-Winfield HTF546A is a 5.0V HCMOS, hermetically sealed, fixed frequency, Temperature Compensated Crystal Oscillator (TCXO). The HTF546A is designed for use as a SONET/SDH Network Timing Source.

### FEATURES

- 5.0V OPERATION
- LOW JITTER <1ps RMS
- OVERALL FREQUENCY TOLERANCE: ±4.6ppm
- TEMPERATURE RANGE: 0 to 70°C
- HERMETICALLY SEALED DIP PACKAGE
- RoHS 5/6 COMPLIANT

### ORDERING INFORMATION

HTF546A - 012.8M

TCXO  
SERIES

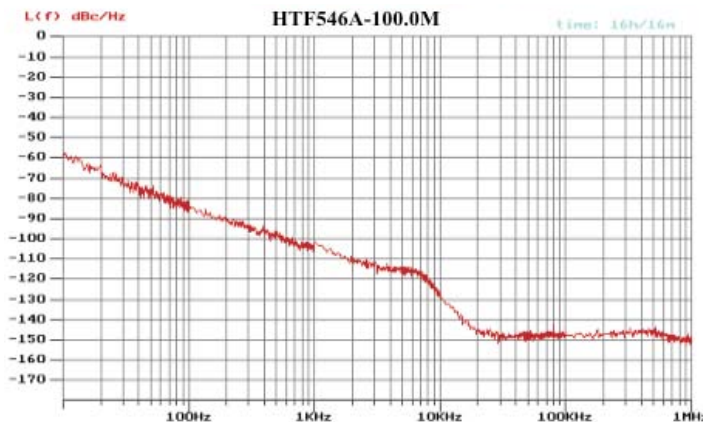
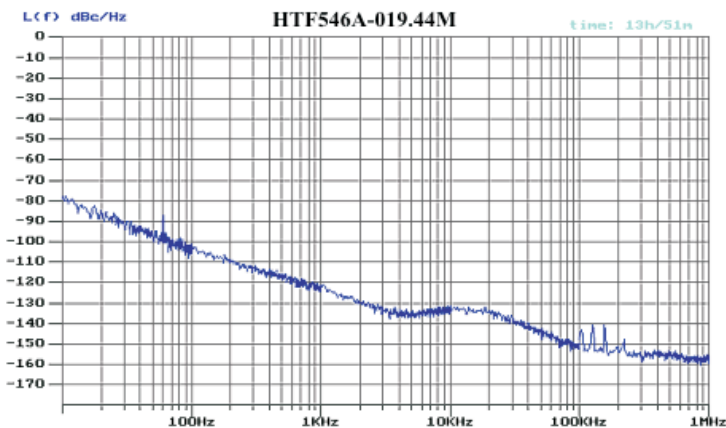
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FREQUENCY

Specifications subject to change without notice.

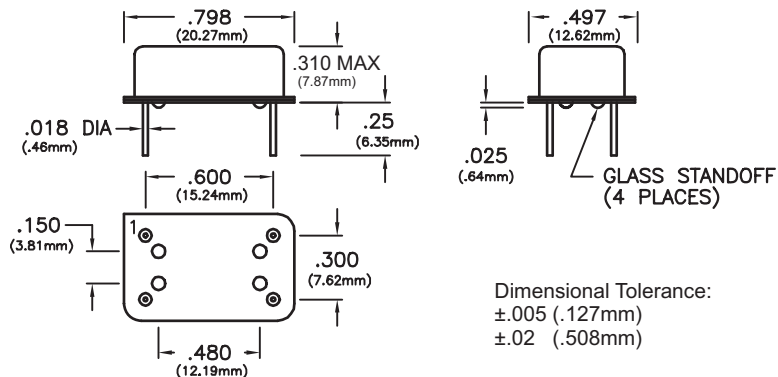
PRODUCT DATA SHEET

CRYSTAL CONTROLLED OSCILLATORS

Typical Phase Noise Measurements



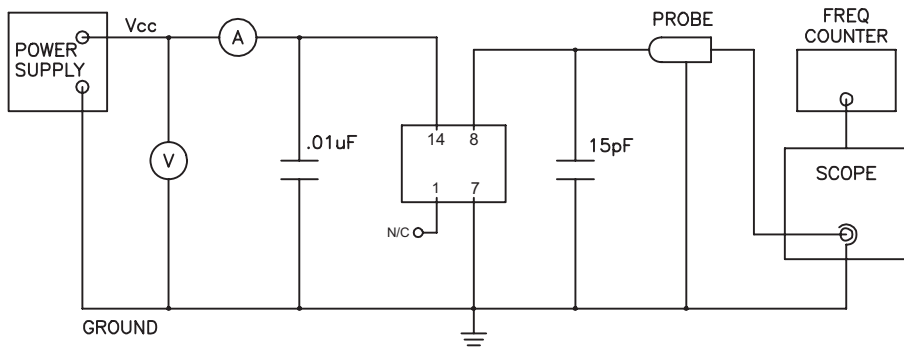
Package Outline



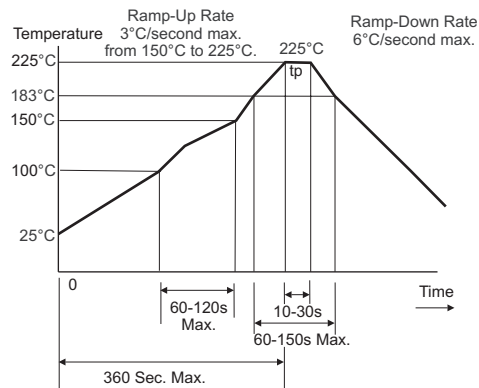
Pin Connections

Pin	Connection
1	N/C
7	Ground
8	Output
14	Vcc

Test Circuit



Solder Profile



Specifications subject to change without notice.