

VTH02, TH02



- High frequency
- Good Reliability
- High quality TCXO for communication equipment.

Table 1 Specifications

Parameter		VTH02, Th02
Frequency Range		50MHz~150MHz
Initial Calibration Tolerance(@25°C ±2°C)		Models with internal trimmer :Adjust to the nominal frequency Models without internal trimmer :± 1ppm typical
Frequency Stability	vs Operation Temp. Range	See Table 2
	vs Vcc Change ± 5%	± 0.3ppm
	vs Load Change ± 10%	± 0.3ppm
	vs Aging	± 1ppm/year
Operation Temperature Range		See Table 2
Supply Voltage		5.0V,8.0V,12V
Current Consumption		30mA max
Output		TTL/CMOS, Code is "T"
		Clipped Sine,0.8Vp-p min@Load10kΩ//10pF,Code is "CS"
		Sine,0.8Vp-p min@Load10kΩ//10pF,Code is "S"
Start-up Time		2ms max
SSB Phase Noise		-135dBc@1KHz,100MHz,typical
Frequency Tuning Range (@25°C ±2°C)		±2ppm typical, by internal trimmer
VCTCXO only	Frequency Tuning Range	±2~ ±10ppm
	Control Voltage Range	2.5V ± 2V
	Slope Polarity	Positive
	Linearity	10%max
Package		A15,A16
Storage Temperature Range		-55~+85°C

Table 2 Frequency Stability vs Operation Temperature Range(Ref to 25°C) and Option Code

	±1.0ppm	±1.5ppm	±2.0ppm	±2.5ppm	±3.0ppm	±5.0ppm
0~50°C	A10	A15	A20	A25	A30	A50
-10~60°C			B20	B25	B30	B50
-20~70°C					C30	C50

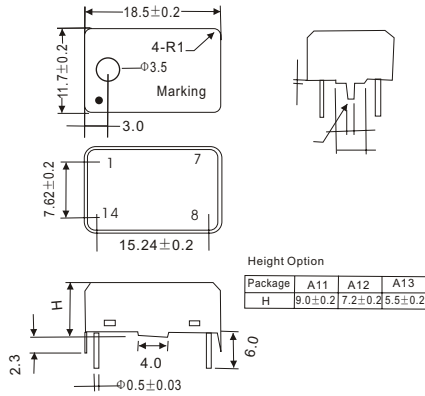
TCXOs

Part Numbering Key

Sample Part Numbers
VTH02-5CSB20-A15
@100MHz

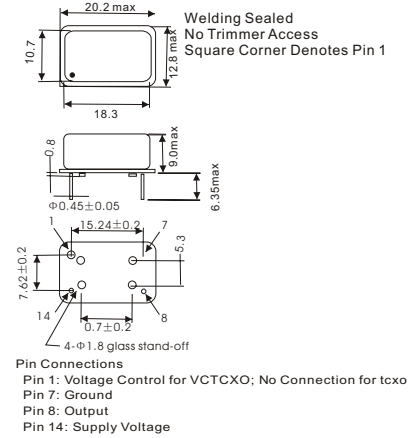
SERIES	SUPPLY VOLTAGE	OUTPUT FORM	FREQ. STABILITY vs. TEMP	PACKAGE CODE	FREQUENCY
TH02	3.3=3.3V	CS=Clipped Sine	See Table2	A15,A16	
VTH02	5=5.0V	S=Sine			
VTH02	5	CS	B20	A15	100MHz

Package A11,12,13 Unit:mm

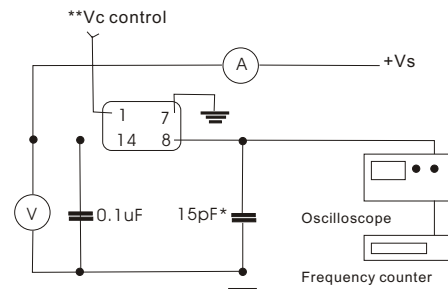


Pin Connections
 Pin 1: Voltage Control for VCTCXO; No Connection for tcxo
 Pin 7: Ground
 Pin 8: Output
 Pin 14: Supply Voltage

Package A14 Unit:mm

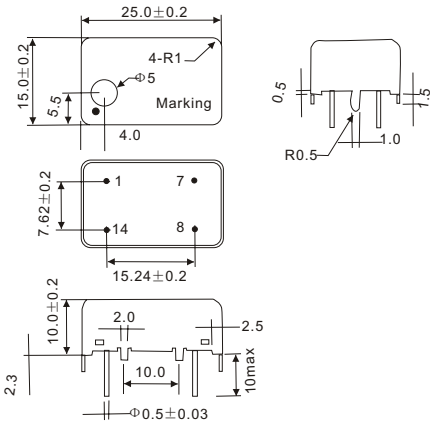


Test Circuit for CMOS Output



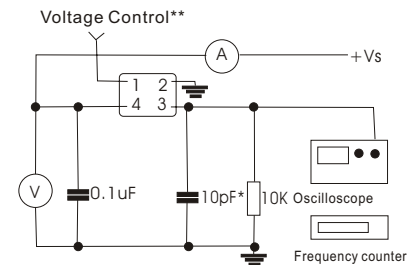
*Inclusive of jigging & equipment capacitance
 **Pin 1 has non connection for Non VFC

Package A15 Unit:mm



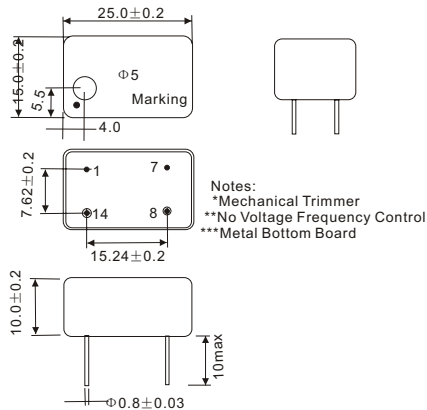
Pin Connections
 Pin 1: Voltage Control for VCTCXO; No Connection for tcxo
 Pin 7: Ground
 Pin 8: Output
 Pin 14: Supply Voltage

Test Circuit for Clipped Sine & Sine Output



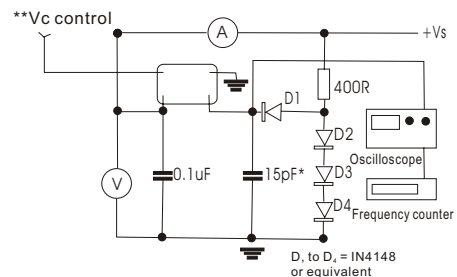
*Inclusive of jigging & equipment capacitance
 **Pin 1 has non connection for Non VFC

Package A16 Unit:mm



Pin Connections
 Pin 1: Ground
 Pin 7: Ground
 Pin 8: Output
 Pin 14: Supply Voltage

Test Circuit for TTL Output



*Inclusive of jigging & equipment capacitance

Marking TA,VTA

1. Frequency
2. Part Number
3. S/N if needed
4. Year & Month
5. Company Name