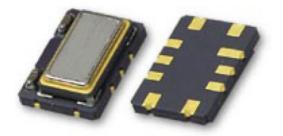
### **Features**

Frequency Range 5 to 26 MHz 7mm x 5mm x 1.85mm ceramic SMD +/- 4.6 ppm total stability over 20 years CMOS or clipped sine wave options Tri-state Enable / Disable Function +/- 0.37 ppm from -40 to +85 centigrade degree +/- 0.28 ppm from -20 to +70 centigrade degree

### **Picture of Part**



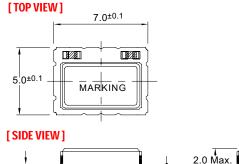
### **Typical Applications**

Base stations 10 G-bit ethernet SONET GSM,CDMA, 3G, and 4G cellular

### **Description**

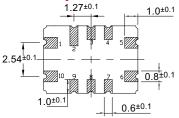
The GSTX1205 family offers low noise compensation techniques combined with aggressive conditioning processes resulting in outstanding long term stability, tightly distributed performance parameters, and superior long term reliability

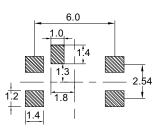
## **Physical Dimensions**











**Recommended Soldering Pattern** 

### **Pin Connections**

Pad	Function					
1	VCON : VC-TCXO					
1	NC : TCXO					
2	NC					
3	NC NC GND					
4						
5						
6	CMOS/ Clipped					
0	Sinewave Output					
7	NC					
8	NC					
9	Tri-State Control*					
10	Vdd					

# **Specification**

TCXO Specification Operational Frequency Range		Sym. Condition	Value			Unit	Note		
			Min. 5	Min.	Typ.	Max.	MHz		
				5		26			
	-							-	
	Load					15	pF		
	H - level voltage	V <sub>H</sub>		0.9Vcc			V		
	L - level voltage	VL				0.1Vcc	V		
	Rise & Fall time						ns		
	Duty cycle			45		55	%		
Clipped Sine-wave	Level	L		0.8			pk-pk		
	Load Resistance	RL			10		Kohm		
ONLY	Load Capacitance	CL			10		pF		
				I					
Power supp	lv		l	L				L.	
Voltage	-J	Vcc		3.135	3.300	3.465	V	5.0 V option available	
Current con	sumption	Icc				6.0	mA	square wave	
	I.					3.5		clipped sine wave	
Frequency of	control*		1			1		l	
Control voltage range		Vc		0.5	1.5	2.5	V	Positive tuning slope	
				0.5	1.5	2.3	•	Positive tuning slope	
Tuning range				+/- 5			ppm		
Vc Input Impedance						100	Kohm		
						100	Romm		
Frequency s	stability							-	
vs. temperature			-40°C to +85°C, ref 25°C	-0.370		+0.370	ppm		
vs. 5% change in supply voltage			ref Vcc typ.	-0.300		+0.300	ppm		
Tolerance at 25C				-2.000		+2.000	ppm	Frequency 1 hr after reflow	
SSB Phase noise @12.8 MHz CMOS typical Tri-state Enable / Disable			100 Hz		-120		dBc/Hz		
			1000 Hz	_	-140				
			10 kHz		-148				
			Output OFF			0.3Vcc			
			Output ON	0.7Vcc					
Total	Over 20 years		Projected after	-4.600		+4.600	ppm	See NOTE 1 on Page 3	
Tolerance			30 days operation						
Environmen	ntal, mechanical conc	litions.							
Operating temperature range		-40°C to +85°C maximum range available that is standard							
Storage temperature range			-55°C to +125°C						
N 1 ' 1	1 1								
Mechanical s	SNOCK								
Vibration Soldering									
Soluering									

### **Ordering Information**

GSTX1205-XX.XXXXXX-W-Y-Z

- 1. Field "XX. XXXXXX " is the Output Frequency to six decimals in MHz
- 2. Field "W" is Operating Temperature Range and Freq. Stability :
  - a. "0" for -20°C to +70°C and +/- 0.280 ppm
  - b. "1" for -40°C to +85°C and +/- 0.370 ppm
  - c. "2" for -40°C to +85°C and +/- 0.28 ppm
  - d. "3" for -40 °C to +85 °C and +/-1 ppm

\*\*\*NOT all choices in section 2 available : Must consult factory for specific frequency and stability combination.

- 3. Field "Y" is Power Supply Option :
  - a. "0" for 5V +/- 5%
  - b. "1" for 3.3V +/- 5%
- 4. Field " Z " is Output Waveform Option :
  - a. "0" for clipped sine wave
  - b. "1" for cmos square wave

#### **Part Number Example**

GSTX1205-10.000000-1-1-1 10.000000 MHz Operating Frequency Operating Temperature of -40 °C to +85 °C +/- 0.370 ppm Frequency Stabilit y 3.3 volt supply cmos output

NOTE 1 : Total Frequency Tolerance is inclusive of calibration at 25 °C, change over temperature, change with 5% supply variation, change with 5% load change, change with reflow soldering, and 20 year aging.