

- ▶ HCMOS TCXO/VC-TCXO
- ▶ 3.2 x 2.5 mm Footprint
- ▶ Pb Free/RoHS
- ▶ Peak solder temp +260°C (10 sec)
- ▶ MSL 1
- ▶ Lead Finish Au

# ECS-TXO-3225

HCMOS TCXO

ECS-TXO-3225 (3.3V) HCMOS SMD TCXO and ECS-VTXO-3225 (3.3V) HCMOS SMD VC-TCXO are ideal for portable, wireless applications where stability is critical.

## OPERATING CONDITIONS / ELECTRICAL CHARACTERISTICS

PARAMETERS	CONDITIONS				UNITS
		MIN	TYP	MAX	
Frequency Range		8.192		40.000	MHz
Operating Temperature	*Standard	-30		+85	°C
Storage Temperature		-40		+90	°C
Input Voltage	VDD	+3.135	+3.3	+3.465	VDC
Frequency Stability	vs. Temp (-30 ~ +85°C)			± 2.5	ppm
	vs. Supply Change (±5%)			± 0.3	ppm
	vs. Load Change (±5%)			± 0.3	ppm
	vs. Aging/year			± 1.0	ppm
Frequency Tolerance	@ +25°C ±2°C			±1.5	ppm
Current Consumption				6.0	mA
"0" level	VOL			0.5	VDC
"1" level	VOH	80% VDD			VDC
Output Symmetry	@ 50% VDD Level			40/60	%
Rise and Fall Times	10% VDD to 90% level			10	ns
Output Load	CMOS			15	pF
Start-up Time				2.0	mS
Phase Noise	@ 1 KHz offset			-135	dBc/Hz
ECS-VTXO-3225 Option					
Control Voltage	Pin 1	+0.15	+1.65	+3.15	VDC
Pullability		±5			ppm

## DIMENSIONS (mm)

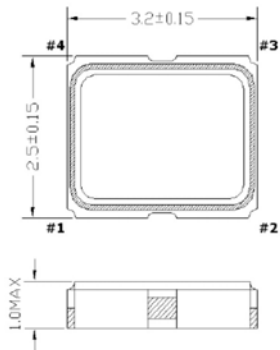


Figure 1) Top, Side and Bottom views

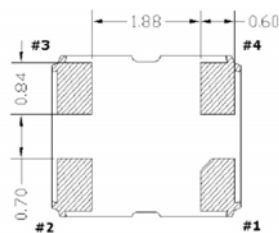


Figure 2) Suggested Land Pattern

Pin Connections	
Pin #1	N/C or VCONT
Pin #2	Ground
Pin #3	Output
Pin #4	VDD

## PART NUMBERING GUIDE: Example ECS-TXO-3225-250-TR

ECS	Series	Frequency Abbreviation	Stability	Temp	TR
TXO-3225= TCXO VTXO-3225=VC-TCXO	250 = 25.000 MHz See Developed Frequencies	Standard Blank = ±2.5 ppm Custom Options B= ±1.5 ppm C= ±1.0 ppm	Standard Blank = -30 ~ +85°C Custom Options * N= -40 ~ +85°C	TR= Tape & Reel	

Developed Frequencies	
* Abbreviation	Frequency (MHz)
100	10.000
120	12.000
122.8	12.288
147.4	14.7456
160	16.000
200	20.000
250	25.000
270	27.000

\*Consult Factory for availability of ±1 ppm -40 ~ +85°C