

ROX3627T3 (Not Recommended for New Designs)

The ROX3627T3 OCXO is a cost effective stable oscillator for telecom applications. Its total stability is less than 50 ppb per year across all causes, less than 20 ppb with the higher package. Frequencies available are from 5 MHz to 40 MHz, and power supply options are 3.3 V, 5 V & 12 V. These 36 x 27 mm package series of oscillators are designed with direct heating on a single board. They are optimized designs for the Stratum 3E and up to Stratum 2. For new designs, ROX3827T3 is recommended.

Features

- Hold over better than 5 μ s / 13 μ s over 24 hours, at room temperature, according to the package
- Standard frequencies: 10, 12.8, 13, 20, 26 and 40 MHz
- 2 packages height : 13.7 mm and 19 mm

Applications

- IEEE 1588: G.8263, G8273.x
- Stratum 3E timing modules
- Time and frequency references
- Wireless Base Stations
- LTE-TDD Base Stations

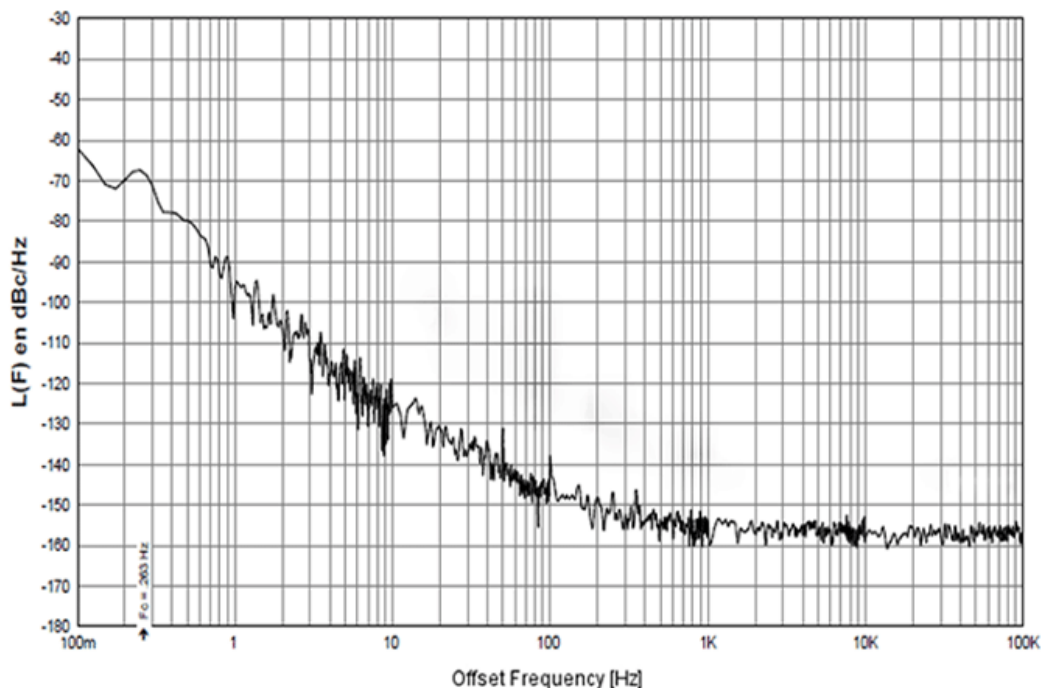
36 x 27 mm



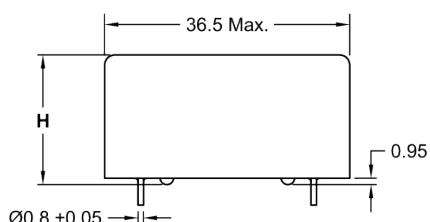
Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Nominal frequency		5 - 40		MHz	Standard frequencies: 10, 12.8, 13, 20, 26 and 40MHz
Operating temperature range	-40		85	°C	
Frequency stability over temperature			± 5	ppb	Calm air
Free-run accuracy			± 1	ppm	Telcordia GR-1244 requirement is ± 4.6 ppm
Supply voltage stability			± 2	ppb	$\pm 5\%$ at 25°C
24 hours holdover performance			± 5 ± 13	μ s μ s	H = 19 mm, no temperature change H = 13.7 mm, no temperature change
Hysteresis effect			0.3	ppb	Over -40 to +85°C, gradient 10°C / hour
Long term stability (Ageing)			± 0.3 ± 10 ± 50	ppb/day ppb/month ppb/year	H = 13.7 mm. After 1 week operation
Long term stability (Ageing)			± 0.1 ± 3 ± 15	ppb/day ppb/month ppb/year	H=19 mm. After 1 week operation
Short term 1s to 10s integration time			± 0.005	ppb	
Retrace effect at 25°C			± 5	ppb	After 24 hours off and 1 hour on
Supply voltage, V _{CC}		5		V	$\pm 5\%$. Standard options 3.3V and 12V
Power consumption			1.5 3.5	W W	Steady state at 25°C calm air During warm-up
Warm-up time			± 5	mn	Within 10 ppb of prior steady state output frequency at time of power-off. 24 hours on min. + 24 hours off max.
Harmonics (Sinewave)			-35	dBc	
Start-up time			1	sec	
Oscillator output - Sinewave	5		9	dBm	Signal level into 50 Ω load
Oscillator output - CMOS					
Output voltage level high (V _{OH})	2.4			V	
Output voltage level low (V _{OL})			0.4	V	
Rise & fall time			5	ns	
Environmental					
Vibration		10		g	IEC 68-2-06 test Fc-Severity 500/10
Shocks (3 directions)		50		g	IEC 68-2-27 test Ea severity 50A
Storage temperature	-55		90	°C	

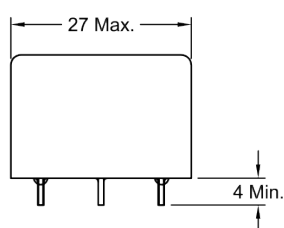
SSB Phase Noise: ROX-T3 OCXO (Typical value at 25°C)

NOISE **XT** 10.00 MHz ROX-T3 OCXO SSB Phase Noise


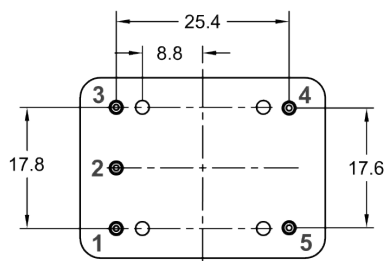
Model Outline: ROX3627T3 OCXO



FRONT VIEW



SIDE VIEW



BOTTOM VIEW

PIN CONNECTIONS

- 1 VC (Frequency Control)
- 2 VREF (Reference Voltage)
- 3 Vcc (Power Supply)
- 4 Output (Output Signal)
- 5 GND

HEIGHT (H) OPTIONS:

H = 13.7 mm Max, or
H = 19.0 mm Max.

NOTE:

Outline unit is mm.
Tolerance is ± 0.2 mm if it has not been indicated.