

## ROX2525S4

The ROX2525S4 OCXO is a perfect choice where performance versus space is at a premium. Frequencies available are from 10MHz to 40MHz, and power supply options are 3.3V, 5V & 12V. These 25 x 25 mm package series of oscillators are designed with direct heating on a single board. They are optimized designs for the Stratum 3E level.

### Features

- Small form factor
- Hold over below 50  $\mu$ s over 24 hours, including temperature change
- Standard frequencies: 10, 12.8, 13, 20, 24.576, 26 and 40 MHz
- Hermetic package

### Applications

- IEEE 1588: G.8263, G.8273.x
- Sync E modules
- Stratum 3E timing modules
- Time and frequency references
- Test equipment

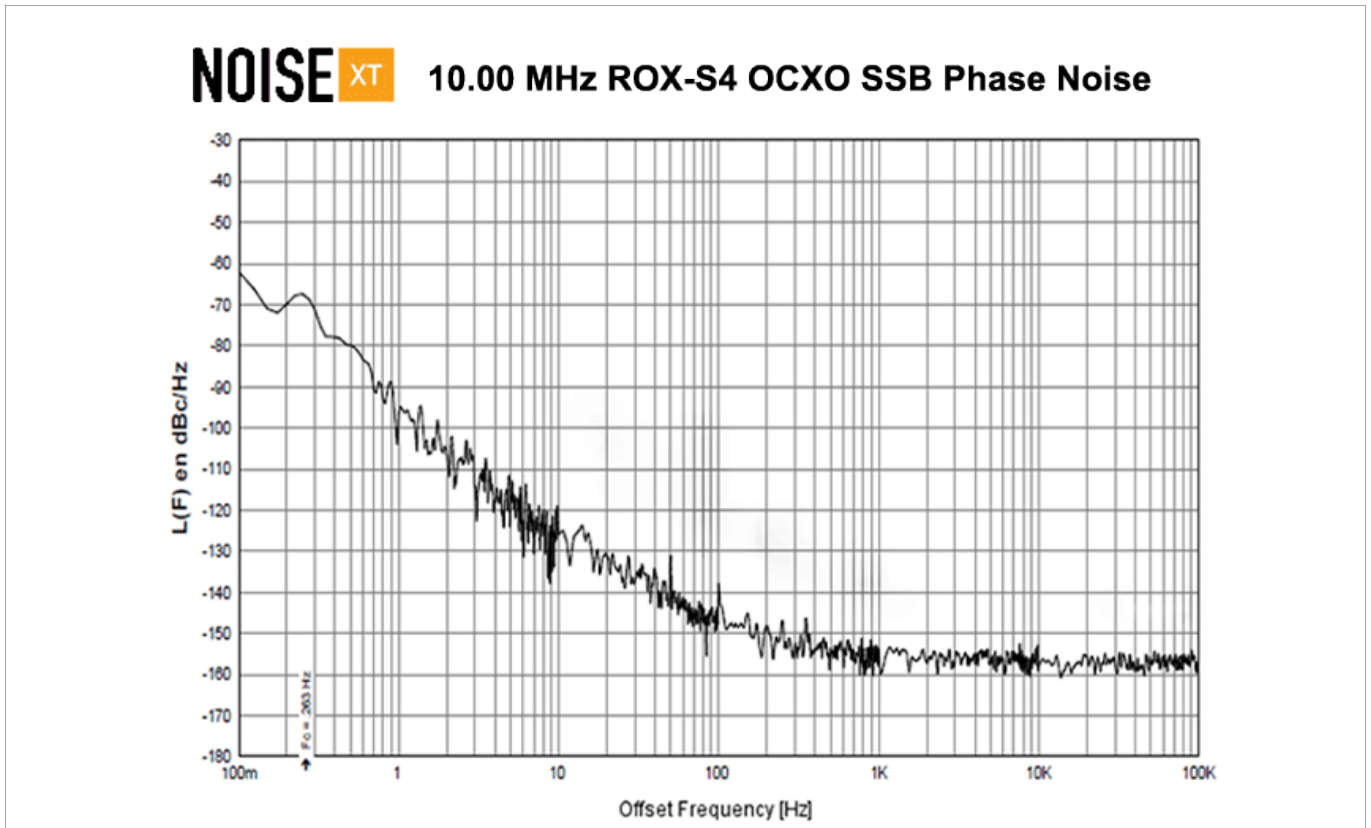
25.4 x 25.4 mm



### Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Nominal frequency		10 - 40		MHz	Standard frequencies: 10, 12.8, 13, 20, 24.576, 26 and 40MHz
Operating temperature range	-40		85	°C	
Frequency stability over temperature	$\pm 5$		$\pm 10$	ppb	Calm air
Temperature slope		0.16		ppb/°C	0.5°C/minute
Free-run accuracy over 20 years			$\pm 1$	ppm	Telcordia GR-1244 requirement is $\pm 4.6$ ppm
Supply voltage stability			$\pm 2$	ppb	$\pm 5\%$ at 25°C
24 hours holdover performance			$\pm 50$	$\mu$ s	After 3 days of continuous power on, constant load and 1% supply change and 50°C window in operating temperature range, temperature gradient ( 10 °C / hour)
Hysteresis effect			0.3	ppb	Over -40 to +85°C, gradient 10°C / hour
<u>Long term</u> stability (Ageing)			$\pm 0.5$ $\pm 15$ $\pm 75$	ppb/day ppb/month ppb/year	After 1 week operation
Short term 1s to 10s integration time			0.01	ppb	
Retrace effect at 25°C, 24 hours off and 1 hour on			$\pm 5$	ppb	
Supply voltage (V <sub>CC</sub> )		5		V	$\pm 5\%$ . Standard options 3.3V and 12V
Power consumption			3.5 1.5	W W	During warm-up Steady state at 25°C calm air
Warm-up time			5	minutes	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			0.25	sec	
Oscillator output - Sinewave		3		dBm	Signal level with 50 $\Omega$ load
Oscillator output – Compatible CMOS					
Output voltage level high (V <sub>OH</sub> )	2.4			V	
Output voltage level low (V <sub>OL</sub> )			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-S4 OCXO (Typical value at 25 °C)



## Model Outline: ROX2525S4 OCXO (19 Pin)

