

ROX2522S2

The ROX2522S2 belongs to a range of High End Telcom OCXOs designed as a compact frequency source and time holdover reference for all synchronisation systems. This 25 x 22 mm SMD package oscillator is finely optimised: its internal structure enables an excellent stability versus temperature (± 0.5 ppb) across the operating temperature. This high-end OCXO provides the best solution for all systems that require low ageing, and low frequency versus temperature in a small form factor.

Features

- Very high stability over temperature
- Low ageing
- Standard frequencies: 10 and 20 MHz

Applications

- Holdover reference for 5G systems
- Time and frequency references
- Wireless base stations
- Instrumentation and broadcasting

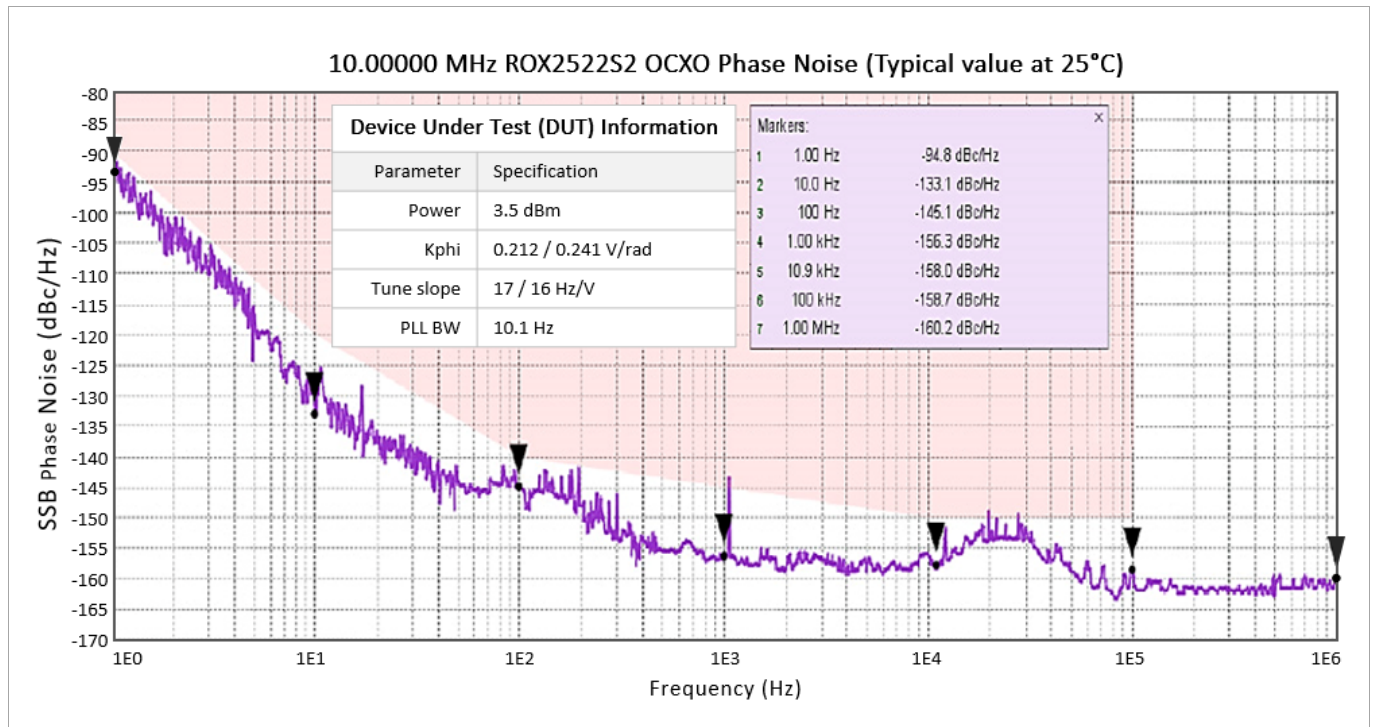
25.4 x 22.0 x 12.1 mm



Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Nominal frequency		10-20		MHz	Standard frequencies: 10 and 20 MHz
Operating temperature range	-40		85	°C	
Frequency stability over temperature		± 0.5		ppb	
Free-run accuracy over 20 years			± 0.5	ppm	Telcordia GR-1244 requirement is ± 4.6 ppm
Supply voltage stability			± 0.5	ppb	$\pm 5\%$ at 25°C
Hysteresis effect			0.3	ppb	Over -40 to +85°C, gradient 10°C / hour
Holdover performance 12-hour	± 1.5			μ s	After 3 days of continuous power on, constant temperature and calm air
Long term stability (Ageing)			± 0.2 ± 50 ± 300	ppb/day ppb/year ppb/10 years	After 1 week of operation
Short term 1s integration time			± 0.005	ppb	100 samples (ADEV)
Retrace effect at 25°C			± 5	ppb	After 24 hours off and 1 hour on
Supply voltage (V _{CC})		3.3		V	$\pm 5\%$
Power consumption			3.5 1.5	W W	During warm-up Steady state at 25°C calm air
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.
Spurious			-80	dBc	
Sub-harmonics			-40	dBc	
Start-up time			1.5	sec	
Oscillator output – Compatible CMOS					
Output voltage level high (V _{OH})	2.4			V	
Output voltage level low (V _{OL})			0.4	V	
Rise & fall time			5	ns	

SSB Phase Noise:



Model Outline:

