

RXO3225M

The RXO3225M Crystal Oscillator (XO) is engineered to deliver exceptional jitter performance, achieving a low RMS phase jitter of 0.1 ps max. (measured from 12 kHz to 20 MHz offset). This compact XO in size 3.2 x 2.5 x 0.95 mm, is an ideal Surface-Mount Device (SMD) for space-constrained designs.

This XO offers various frequency stability options over a wide operating temperature range, accounting for initial frequency calibration, supply and load variations, and one-year ageing effects. Supporting a broad spectrum of industry-standard frequencies from 13.5 to 200 MHz, the RXO3225M is suitable for diverse applications across data centres, networking, instrumentation, and more.

Features

- Frequency (Fn): 13.5 to 200 MHz
- Output: LVPECL, LVDS, HCSL or LP-HCSL
- Wide frequency range
- Operating temperature: -40 to 125°C
- Low phase noise and RMS jitter

Applications

- Data centre, Telecom, Networking, Server, Storage, Instrumentation
- GB Ethernet, SONET, SATA, SAS, Fibre Channel, PCI-Express

3.2 x 2.5 x 0.95 mm



Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Nominal frequency (Fn)	13.5		200	MHz	LVPECL, LVDS, HCSL or LP-HCSL output
Temperature range	-40		85 ~ 125	°C	
Frequency stability			±25 ~ ±100	ppm	Including frequency calibration, operating temperature range, supply and load variations, and 1 year ageing at 25°C
Supply voltage (VDD)	LVPECL LVDS, HCSL	2.5/3.3 1.8/2.5/3.3		V	With a tolerance of ±5%
Supply current	LVPECL LVDS HCSL		65 40 25	mA	
RMS phase jitter			0.1 ~ 1	ps	Integrated from 12kHz to 20MHz

Model Outline and Recommended Pad Layout

TOP VIEW
3.2 x 2.5 mm

SIDE VIEW
0.95±0.1 mm height, 0.35 mm thickness

BOTTOM VIEW
0.70 mm width, 0.10 mm offset, R0.15 radius

RECOMMENDED PAD LAYOUT – TOP VIEW

Pin	Connections
1*	Enable/Disable (E/D)
2	NC
3	GND
4*	Output
5*	Complementary Output
6	V _{DD}

E/D function	Pin 1	Pin 4 & 5
	High or Open	Operating
Low	High Impedance	

NOTE: Outline unit is mm.