

## RCX2520Q

The RCX2520Q Selectable XO combines small size and low RMS phase jitter with the ability to select output frequency from one of four factory-configured values. By combining multiple oscillator specifications into one part, the RCX2520Q can be used to reduce unique part count and provide software-upgradable hardware.

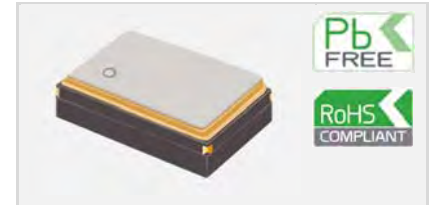
### Features

- Up to four frequency selections in one part
- LVC MOS, LVPECL, or LVDS output options
- 1.0 ps RMS phase jitter (12kHz to 20MHz)
- Wide frequency range
- Fast sample turn around

### Applications

- Ethernet PHY (10G/25G)
- Datacentre/Enterprise/SAN
- WLAN, PCIe, Fibre Channel
- DSL/ADSL
- Wi-Fi

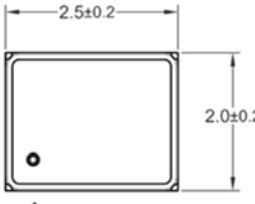
2.5 x 2.0 mm



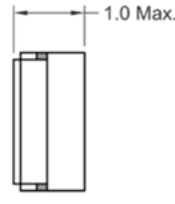
### Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Number of frequency selections	2		4		2 with E/D, 3 or 4 without E/D function
Nominal frequency 1*	8		1500	MHz	Quad: FS1 = 0, FS0 = 0; Dual: FS0 = 0
Nominal frequency 2*	8		1500	MHz	Quad: FS1 = 0, FS0 = 1; Dual: FS0 = 1
Nominal frequency 3*	8		1500	MHz	Quad: FS1 = 1, FS0 = 0
Nominal frequency 4*	8		1500	MHz	Quad: FS1 = 1, FS0 = 1
Operating temperature range	-40		85	°C	
Frequency stability			±35	ppm	Including frequency calibration, operating temperature range, supply and load variations, and 10 years aging at 25°C
Supply voltage (V <sub>DD</sub> )		2.5 3.3		V V	With a tolerance of ±5% With a tolerance of ±10%
Supply current			30 65 40	mA mA mA	For LVC MOS For LVPECL For LVDS
RMS phase jitter (Integrated from 12kHz to 20MHz)		1.0 0.5	2.0 1.0	ps ps	For certain configurations

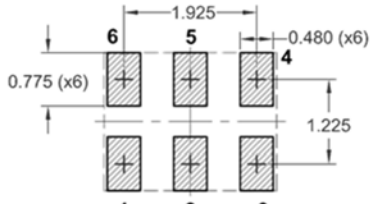
### Model Outline and Recommended Pad Layout



**TOP VIEW**



**SIDE VIEW**



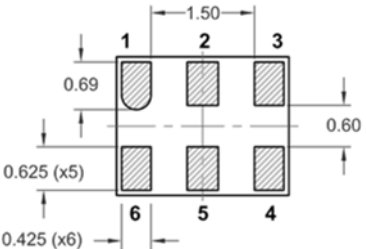
**RECOMMENDED PAD LAYOUT - TOP VIEW**

**PIN CONNECTIONS**

1*	E/D (Dual mode) or FS1 (Quad mode)
2	FS0
3	GND
4	Output
5*	NC (LVC MOS) or Complementary Output (LVPECL/LVDS)
6	V <sub>DD</sub>

\* Depending on the selected frequency mode

**NOTE:**  
Outline unit is mm.



**BOTTOM VIEW**