

RXO7050C

The RXO7050C is a Crystal Oscillator (XO) in a compact 7.0 x 5.0 mm footprint, designed with a CMOS output for reliable clock generation. It is an ideal choice for space-constrained Surface-Mount Device (SMD) applications. It delivers ≤ 1 ps RMS phase jitter (measured from a 12 kHz to 20 MHz offset). For applications requiring even lower jitter, an option with typical jitter as low as 50 fs is available upon request.

This device supports a wide range of industry-standard frequencies from 0.5 to 160 MHz. It provides various frequency stability options across a wide operating temperature range, considering factors such as initial frequency calibration, supply and load variations, and one-year ageing effects. The RXO7050C is well-suited for diverse applications in consumer electronics, computing, networking, data centres, industries, and more.

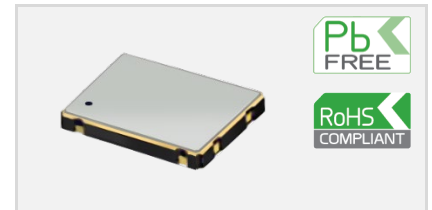
Features

- Frequency (Fn): 0.5 to 160 MHz
- Output: CMOS
- Wide frequency range
- Operating temperature: -40 to 125°C
- Low phase noise and RMS jitter

Applications

- Consumer electronics
- Computing, Networking
- Processing, Data storage
- Data centre
- Medical, Industrial

7.0 x 5.0 x 1.4 mm



Standard Specifications

Parameter	Min.	Typ.	Max.	Unit	Test Condition / Description
Nominal frequency (Fn)	0.5		160	MHz	
Temperature range	-40		70 ~ 125	°C	
Frequency stability			$\pm 25 \sim \pm 50$	ppm	Including frequency calibration, operating temperature range, supply and load variations, and 1 year ageing at 25°C
Supply voltage (VDD)		1.8/2.5/3.3		V	With a tolerance of $\pm 5\%$
Supply current	≤ 20 MHz ≤ 40 MHz ≤ 60 MHz ≤ 75 MHz ≤ 100 MHz ≤ 160 MHz		6 10 18 22 25 28	mA	
RMS phase jitter			1	ps	Integrated from 12kHz to 20MHz

Model Outline and Recommended Pad Layout

TOP VIEW

FRONT VIEW

BOTTOM VIEW

RECOMMENDED PAD LAYOUT - TOP VIEW

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

* Output Enabled: >70% of VDD on E/D, or E/D pin left open (Connected to internal pull-up resistor)
Output Disabled: <30% of VDD on E/D, or E/D pin to GND

NOTE: Outline unit is mm.