

KoT cut OP AW Crystal Oscillator

Low phase noise / Low phase jitter / High precision / 500 MHz to 1000 MHz / 14.2 mm × 9.2 mm

PRELIMINARY

KCRO-1409

FEATURES

- OPAW® oscillator using the new patent pending “KoT cut®” resonator
KoT: Kerfed orthogonal plate waves for zero Temperature coefficient OPAW: Orthogonal Plate Acoustic Waves
- Frequency stability over temperature twice as good as AT-cut oscillators
- Fundamental frequency available from 500 MHz to 1000 MHz
- Excellent phase noise characteristics
→ -140 dBc/Hz @10 kHz offset
- Two configurations: Fixed frequency (SPXO) and Voltage Controlled (VCXO)



(14.2 × 9.2 × 5.3 mm)

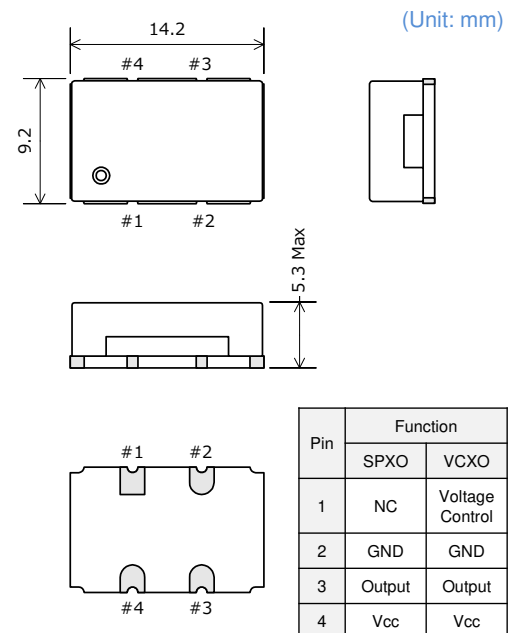
APPLICATIONS

5G communication equipment, Base stations, ADC / DAC, Jitter Cleaner, Optical modules, Avionics / Satellite, Measurement equipment, etc.

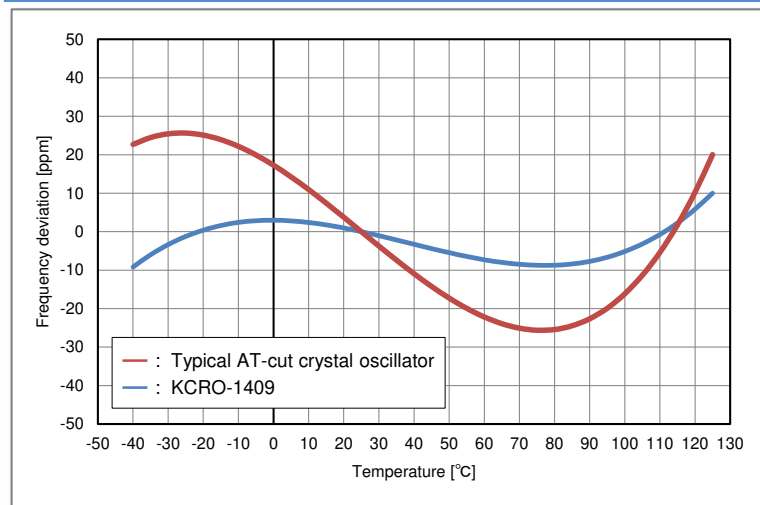
STANDARD SPECIFICATIONS

Item	Specifications			Unit	Conditions / Remarks	
	MIN	TYP	MAX			
Nominal frequency	500	640	1000	MHz		
Storage temperature	-40	-	+125	°C		
Operating temperature	-40	-	+125	°C		
Frequency tolerance	-20	-	+20	ppm	High precision, -40 °C to +85 °C	Includes initial accuracy, frequency versus temperature characteristics and aging over ten years
	-30	-	+30	ppm	High precision, -40 °C to +125 °C	
	-50	-	+50	ppm	Standard, -40 °C to +125 °C	
Supply voltage	4.75	5.00	5.25	V		
Current consumption	-	70	100	mA		
Output waveform	Sine wave					
Output level	+3	-	-	dBm	50 Ω	
Absolute pull range	-50	-	+50	ppm	VCXO, Vcontrol = 0 V to 5 V	
Phase noise	-	-140	-	dBc/Hz	SPXO, fo = 640 MHz	10 kHz offset
	-	-135	-	dBc/Hz	VCXO, fo = 640 MHz	
Phase jitter	-	5	10	fs	SPXO, fo = 640 MHz	12 kHz to 20 MHz offset
	-	7	14	fs	VCXO, fo = 640 MHz	
g-sensitivity	-	-	2	ppb/g		

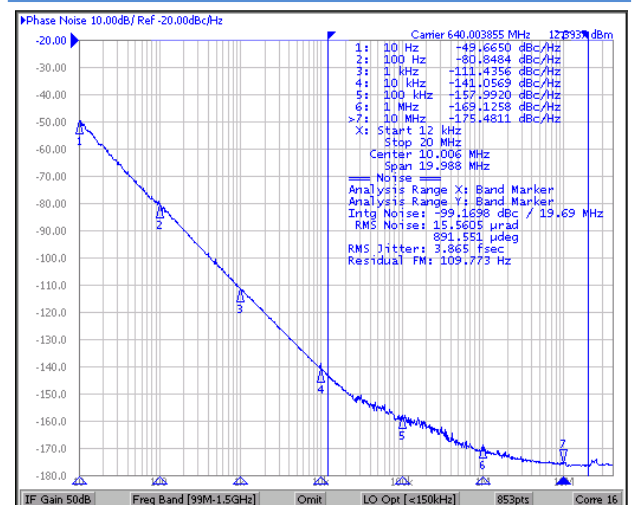
OUTLINE DIMENSIONS



FREQUENCY TEMPERATURE CHARACTERISTICS



PHASE NOISE CHARACTERISTICS



※SPXO, Vcc = 5.0 V

GENERAL NOTES

- The information in this document is subject to change without notice.
- Please contact us for specifications that do not match the standard specifications.



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