

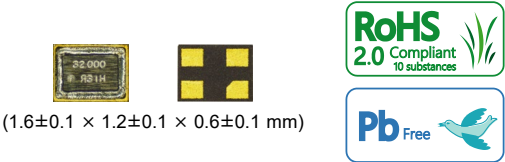
SMD Crystal Clock Oscillator (SPXO)

1.6 mm x 1.2 mm / 24 MHz to 54 MHz / CMOS / 0.9 V to 1.5 V

FCXO-07F

FEATURES

- Low supply voltage 0.9 V to 1.5 V (Typ. 1.2 V)
- 1612 size, CMOS crystal clock oscillator (24 MHz to 54 MHz)
- Robust ceramic package with metal lid sealed by electron beam
- RoHS compliant / Lead-free



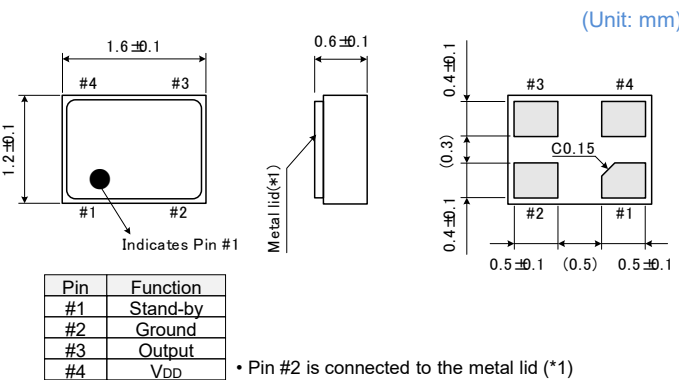
APPLICATIONS

- Mobile communication, wireless-modules

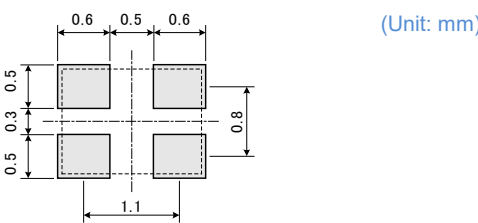
STANDARD SPECIFICATIONS

Item	Specifications	Unit	Conditions (Remarks)
Nominal frequency	24 to 54	MHz	-
Frequency tolerance	± 7	ppm	@25 °C (See below for more options)
Storage temperature	-40 to +125	°C	-
Operating temperature	-40 ~ +85 -40 ~ +125	°C	(See below for more options)
Frequency / temperature characteristics	± 20 (-40 °C to + 85 °C) ± 50 (-40 °C to +125 °C)	ppm	Refer to 25 °C (See below for more options)
Supply voltage	0.9, 1.2, 1.5	V	(See below for more options)
Current consumption (Max.)	3.5	mA	F = 54 MHz, V _{DD} = 0.9 V, CL = 15 pF
Stand-by current (Max.)	50	µA	Stand-by = "L"
Output voltage	V _{OH} (Min.)	0.9V _{DD}	I _{OH} = -1 mA, V _{DD} = 0.9 V
	V _{OL} (Max.)	0.1V _{DD}	I _{OL} = +1 mA, V _{DD} = 0.9 V
Output load (Max.)	15	pF	-
Output level	CMOS	-	-
Symmetry (Duty Cycle)	50 ± 5	%	V _{TH} = 0.5V _{DD}
Rise time / Fall time (Max.)	5.0	ns	0.1V _{DD} to 0.9V _{DD}
Start-up time (Max.)	5.0	ms	V _{DD} = 0.9 V
Disable time (Max.)	0.1	µs	V _{DD} = 0.9 V
Stand-by function (Pin #1)	V _{IH} (Min.)	0.8V _{DD}	V Output (Pin #3) enabled
	V _{IL} (Max.)	0.2V _{DD}	V Output (Pin #3) disabled = High-Z
Tape and reel	3000	pcs/reel	Reel diameter : ϕ180 mm

OUTLINE DIMENSIONS



RECOMMENDED LAND PATTERN



ORDERING NUMBER GUIDE

X7F 49152 12 B R3 X ##

Type

X7F	FCXO-07F(TBD)
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Nominal Frequency

Please specify (within 3 to 80 MHz)
e.g. "49152" = 49.152 MHz

Supply Voltage

09	0.9 V ± 10 %
12	1.2 V ± 10 %
15	1.5 V ± 10 %
NN	Other *2 (0.9 ~ 1.5 V)

Frequency Tolerance *1

A	±7 ppm
B	±10 ppm
C	±15 ppm
D	±20 ppm
E	±30 ppm
F	±50 ppm
G	Overall *1
N	Other *2

Frequency / Temperature Characteristics & Operating Temperature *1

Operating temperature	Frequency / temperature characteristics				
	±10 ppm	±15 ppm	±20 ppm	±30 ppm	±50 ppm
-20 ~ +70 °C	P1	P2**	P3**	P4**	P5**
-30 ~ +85 °C	-	Q2	Q3**	Q4**	Q5**
-40 ~ +85 °C	-	-	R3	R4**	R5**
-40 ~ +105 °C	-	-	-	S4	S5**
-40 ~ +125 °C	-	-	-	-	T5
その他 *2	NN				

RIVER use only (as needed)

Tape and Reel

X	3000 pcs/reel
N	Other *2

*1. For overall frequency stability inclusive of stability at 25 °C and an operating temp. range, please select "G (Overall)" from the table "Frequency Tolerance" followed by a code that is with " ** " from the table "Freq./Temp. Characteristics & Operating Temp". (e.g. GR5 = Overall ±50 ppm (-40 to +85 °C))

*2. Please consult us for your requirements.

1.6 mm x 1.2 mm / 24 MHz to 54 MHz / CMOS / 0.9 V to 1.5 V

May. 29. 2025