

SMD Communication Crystal

Low profile SMD AT-cut quartz crystal with thermally coupled temperature sensor in a ceramic package with a 2.5 mm x 2.0 mm foot print.

Product description

Miniature low profile AT-cut quartz crystal with thermally coupled temperature sensor. True SMD style, ceramic package with nickel plated lid, seam welded. The product is supplied on tape and reel.

**Applications**

- Automotive
- Communications
- GPS
- Mobile Phones
- WiFi

Features

- Excellent shock and vibration performance
- Low aging
- Thermally coupled temperature sensor

Specifications**1.0 SPECIFICATION REFERENCE**

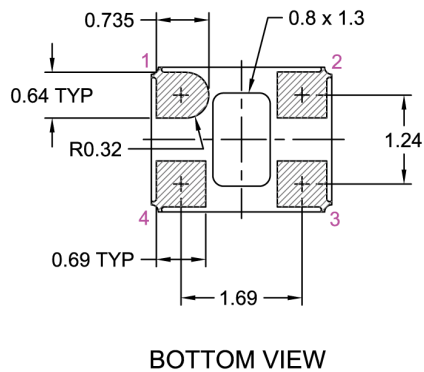
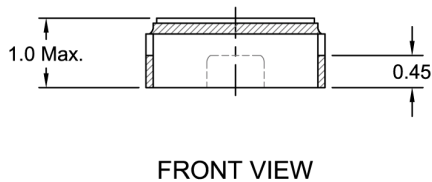
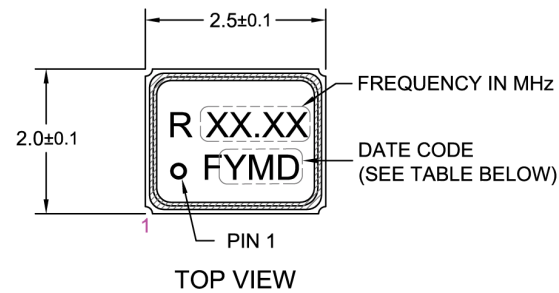
Line	Parameter	Description
1.1	Model description	RXT2520AT
1.2	RoHS compliant	Yes
1.3	Reference number	
1.4	Rakon part number	

2.0 FREQUENCY CHARACTERISTICS

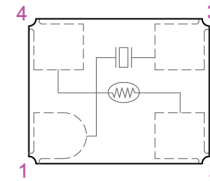
Line	Parameter	Test Condition	Value	Unit
2.1	Frequency		16.368 to 52	MHz
2.2	Calibration tolerance	Frequency at 25°C $\pm 2^{\circ}\text{C}$ and specified load capacitance	± 10 to 50	ppm
2.3	Reflow shift	Frequency shift after reflow with 4 hours settling at 25°C	± 1 max	ppm
2.4	Frequency stability over temperature	Referenced to frequency reading at 25°C and the specified load capacitance	± 12 to 50	ppm
2.5	Temperature range	Operating temperature	-40 to 85	$^{\circ}\text{C}$
2.6	Frequency perturbations	Residual error from the frequency versus temperature curve fit 5th order. Minimum of 1 frequency reading every 3°C over the operating temperature range	± 0.5 max	ppm
2.7	Long term stability	Frequency drift over 1 year at 25°C	± 1 max	ppm
2.8	G sensitivity	Gamma vector of all three axes from 30Hz to 1500Hz at 10 RMS	2 max	ppb/g

Drawing Name: RXT2520AT Model Drawing

MODEL OUTLINE



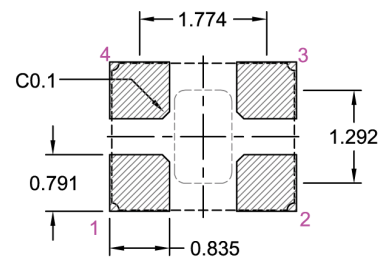
EQUIVALENT CIRCUIT - TOP VIEW



PIN CONNECTIONS

1	CRYSTAL
2	GND
3	CRYSTAL
4	THERM

RECOMMENDED PAD LAYOUT - TOP VIEW



Y - Year Code

Code	Year	Code	Year
A	2010	N	2023
B	2011	O	2024
C	2012	P	2025
D	2013	Q	2026
E	2014	R	2027
F	2015	S	2028
G	2016	T	2029
H	2017	U	2030
I	2018	V	2031
J	2019	W	2032
K	2020	X	2033
L	2021	Y	2034
M	2022	Z	2035

M - Month Code

Code	Month
1	Jan
2	Feb
3	Mar
4	Apr
5	May
6	Jun
7	Jul
8	Aug
9	Sep
A	Oct
B	Nov
C	Dec

D - Day Code

Code	Day	Code	Day	Code	Day
1	1	E	14	R	27
2	2	F	15	S	28
3	3	G	16	T	29
4	4	H	17	U	30
5	5	I	18	V	31
6	6	J	19		
7	7	K	20		
8	8	L	21		
9	9	M	22		
A	10	N	23		
B	11	O	24		
C	12	P	25		
D	13	Q	26		

TITLE: RXT2520AT MODEL

RELATED DRAWINGS:

FILENAME: CAT625

REVISION: D

DATE: 19-Jan-12

SCALE: 10 : 1

Millimetres

TOLERANCES:

XX =

X.X =

X.XX = ±0.10

X.XXX = ±0.05

X° =

Hole =

rakon

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