

# Specification of Quartz Crystal Units

- 1 NDK Part Number NX2016SA-48M-EXS00A-CS05517
- 2 Chipset Maker Texas Instruments
- 3 Application BLE · Zigbee · Sub-GHz
- 4 Chipset Name CC13xx/CC26xx
- 5 NDK Specification Number EXS00A-CS05517
- 6 Type NX2016SA
- 7 Electrical Characteristics

	Parameters	SYM.	Electrical Spec.				Notes
			min	typ	max	Units	
1	Nominal Frequency (fnom)	fnom	48.000			MHz	
2	Overtone order	-	Fundamental			-	
3	Frequency tolerance	-	-10	-	+10	ppm	at +25°C
4	Frequency versus temperature characteristics *1.	-	-15	-	+15	ppm	at -30 to +85°C
		-	-30	-	+30	ppm	at -40 to +85°C
		-	-40	-	+40	ppm	at -40 to +105°C
		-	-85	-	+85	ppm	at -40 to +125°C
5	Equivalent Series Resistance	Rr	-	-	40	Ω	IECπ -Network Series
6	Load capacitance	CL	-	7	-	pF	IECπ -PI-Network
7	Level of drive	-	-	10	200	μW	
8	Shunt Capacitance	C0	-30%	0.63	+30%	pF	
9	Motional Capacitance	C1	-30%	2.20	+30%	fF	
10	Motional Inductance	L1	-30%	5.1	+30%	mH	
11	Insulation resistance	-	500	-	-	Ω	*2
12	Operating temperature range	-	-40	-	+125	°C	
13	Storage temperature range	-	-40	-	+125	°C	
14	Air-tightness	-	-	-	1.1x10 <sup>-9</sup>	Pa·m <sup>3</sup> /s	Helium leak detector
15	Recommended oscillation margin	-	300	-	-	Ω	*3

\*1. The reference temperature shall be +25°C

\*2. When terminal to terminal and terminal to cover were applied at DC100V ±15V.

\*3. When the circuit does not have enough value as above, please contact us.

## Dimension

