

# DIP QUARTZ CRYSTAL RESONATOR



## Dip Crystal 11.4×4.8 mm

- Package Height 3.5 mm max
- Wave Soldering Temperature: 265 °C max
- highly stable and reliable crystal unit with a metallic package
- Taped Version Available

RoHS  
2002/95/EC

RoHS compliant

### ★ PARAMETERS

PARAMETERS	SPECIFICATION
Frequency Range	3.200~100MHz
Operation Mode	(3.2~40MHz) Fundamental (27~100MHz) 3rd /5rd Overtone
Loading Capacitance	20pF Std. 8 to 33pF, Series available
Drive Level	10 μ W (300 μ W Max)
Frequency Tolerance	±10ppm~±30ppm (at 25°C)
Equivalent Resistance	See Below
Frequency Stability	±2.5ppm~±50ppm
Operating Temp. Range:	0~+50°C to -40~+85°C
Storage Temp. Range:	-55~+125°C

○ All specification subject change without notice.

### ★ FREQUENCY STABILITY VS. TEMPERATURE

Operation Temperature Range	Frequency Stability					
	±2.5ppm	±5ppm	±10ppm	±20ppm	±30ppm	±50ppm
0°C~+50°C	○	○	○	●	○	○
-10°C~+60°C		○	○	●	○	○
-20°C~+70°C			○	○	●	○
-40°C~+85°C				○	○	●

● standard ○ available

### ★ ESR (SERIES RESISTANCE RS)

Frequency	Vib. Mode	ESR
3.2-3.999MHz	AT CUT/FUND.	150Ω(MAX)
4.000-4.499MHz	AT CUT/FUND.	120Ω(MAX)
4.500-5.999MHz	AT CUT/FUND.	100Ω(MAX)
6.000-7.999MHz	AT CUT/FUND.	80Ω(MAX)
8.000-9.999MHz	AT CUT/FUND.	60Ω(MAX)
10.000-11.999MHz	AT CUT/FUND.	50Ω(MAX)
12.000-13.999MHz	AT CUT/FUND.	40Ω(MAX)
14.000-40.000MHz	AT CUT/FUND.	30Ω(MAX)
27.000-100MHz	AT 3rd /OT	100Ω(MAX)

### ★ PART NUMBER GUIDE

	Quartz Crystal Resonator	Frequency	Load Capacitance	Package
FT	X	16.000M	20	S