

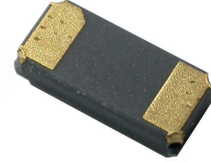
X21

32.768 kHz SURFACE-MOUNT CRYSTAL

FEATURES

- Ultra Miniature package size for 32.768 kHz
- Extended temperature -40/+85°C for industrial applications
- Applications: Wireless applications, Commercial and Industrial applications

2.0 x 1.2 x 0.6 mm



Item	Symbol	Specification
Nominal Frequency	Fo	32.768 kHz
Cut		XY-cut
Operating temperature Range	To	-40° to +85°C
Frequency Tolerance at 25°C	$\Delta f/F$	± 20 ppm standard (see options)
Temperature coefficient	β	-0.040 ppm/°C ² max
Load Capacitance (CL)	CL	12.5 pF standard (see options)
Equivalent Series Resistance	ESR	55 k Ω typ. , 70 k Ω max.
Insulation Resistance	Ri	500 M Ω min. (at 100Vdc)
Drive Level	DL	0.5 μ W max.
Aging	$\Delta f/F$	± 3 ppm max (at 25°C, first year)
Packing Unit		3000pcs / reel
Soldering Condition		260°C, 10 sec x2 max
		Customer specifications on request

OPTIONS & ORDERING INFORMATION

X21-

..... — —	32.768 kHz
Freq. Tolerance	Load Capacitance	
20 = ± 20 ppm	12.5 = 12.5 pF	
30 = ± 30 ppm	9 = 9.0 pF	
50 = ± 50 ppm	7 = 7.0 pF	
	6 = 6.0 pF	

OUTLINE DIMENSIONS

