








Murata Timing Devices

MEMS Resonator, Ceramic Resonators(CERALOCK), Crystal Units

This is a typical lineup. Contact Murata for compatible frequencies and specifications.


for Consumer/Industrial RoHS









	Size	Series		Oscillation Frequency [MHz]					Frequency Tolerance [ppm]				
				10	20	30	40	50	1	10	100	1000	
MEMS Resonator	0.9x0.6x0.3	WMRAG		32.768kHz					● ±20				
CERALOCK	3.2 x 1.3 x 1.0	CSTNE_VH3L											● ±0.07%
	3.2 x 1.3 x 0.8	CSTNE_GH5L											● ±0.07%
	4.5 x 2.0 x 1.2	CSTNR_GH5L											● ±0.07%
Crystal Units (Resin sealed)	2.0 x 1.6 x 0.7	XRCGB_F_S											● ±10
	2.0 x 1.6 x 0.7*	XRCGB_F_P											● ±20
	2.0 x 1.6 x 0.7*	XRCGB_F_M											● ±30
	2.0 x 1.6 x 0.7*	XRCGB_F_L											● ±45
	2.0 x 1.6 x 0.7*	XRCGB_F_L											● ±100
	2.5 x 2.0 x 0.8	XRCHA_F_L											● ±100

*1) Low profile products with equivalent specifications are available.

for Automotive RoHS AEC-Q200



	Size	Series		Oscillation Frequency [MHz]					Frequency Tolerance [ppm]				
				10	20	30	40	50	1	10	100	1000	
CERALOCK	3.2 x 1.3 x 1.0	CSTNE_VH3C CSTNE_VH5T											● ±0.07%
	3.2 x 1.3 x 0.8	CSTNE_GH5C											● ±0.07%
	4.5 x 2.0 x 1.2	CSTNR_GH5C											● ±0.07%
Crystal Units (Resin sealed)	2.0 x 1.6 x 0.7	XRCGB_F_G*											● ±45
		XRCGB_F_C											● ±30
	2.0 x 1.6 x 0.7	XRCGB_F_A											● ±20
		XRCGB_F_A											● ±50
		XRCGE_F_A											● ±30
		2.5 x 2.0 x 0.8	XRCHA_F_A										● ±15/20
												● ±100	

* AEC-Q200 non-compliant

● You can get more information about Timing Devices by visiting the URL below or right QR code.
<http://www.murata.com/en-global/products/timingdevice>

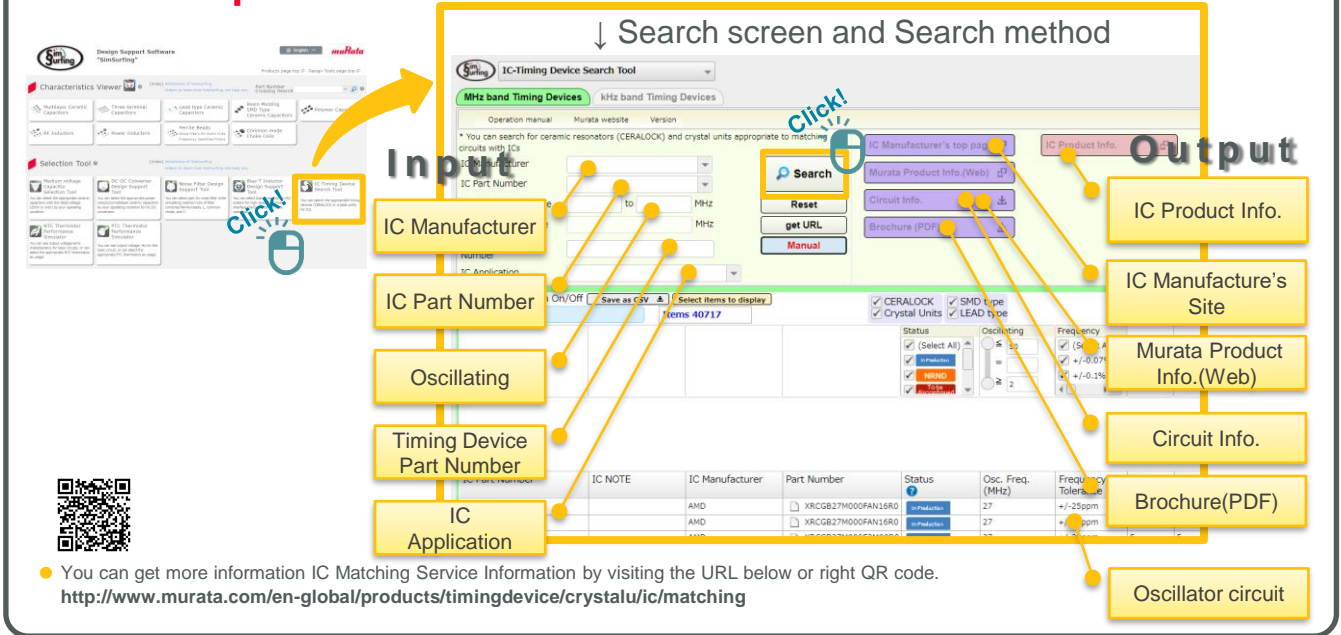


● IC Part Number –Timing Devices Search



Search for Timing Devices by IC part number or search for IC part number by Timing Devices on our website. It is possible to search by either oscillating frequency or frequency range, too.

<http://www.murata.com/simsurf/ic-td/>



Search screen and Search method

Input: IC Manufacturer, IC Part Number, Oscillating, Timing Device Part Number, IC Application











Output: IC Product Info., IC Manufacturer's Site, Murata Product Info.(Web), Circuit Info., Brochure(PDF), Oscillator circuit

● You can get more information IC Matching Service Information by visiting the URL below or right QR code.
<http://www.murata.com/en-global/products/timingdevice/crystalu/ic/matching>

● Murata Sound Components



This is a typical lineup. Contact Murata for other specifications.

Type	Frequency	Part Number	Size (mm)	Appearance ^{※1}	SPL(Typ.) (dB) [±1.5Vo-p, SquareWave,10cm]
Piezoelectric Diaphragms		7BB-20-6	φ20 x 0.42		-
Piezoelectric Sounders (Pin Type)	2kHz	PKM17EPP-2002-B0	φ17 x 9.8		79
		PKM22EPPH2001-B0 ^{※2}	φ22 x 12		79
	4kHz	PKM13EPYH4000-A0	φ12.6x6.9		78
		PKM22EPPH4012-B0	φ22 x 12		92
Piezoelectric Sounders (SMD Type)	2kHz	PKMCS1818E20A0-R1	18 x 18 x 8		100 [+12Vo-p, SquareWave,10cm]
		PKLCS1212E2000-R1 (For Consumer) PKLCS1212E20A0-R1 (For Automotive)			76
	2.4kHz	PKLCS1212E2400-R1 (For Consumer) PKLCS1212E24A0-R1 (For Automotive)	12 x 12 x 3		80
		PKLCS1212E4001-R1 (For Consumer) PKLCS1212E40A1-R1 (For Automotive)			84
		PKMCS0909E4000-R1	9 x 9 x 1.9		72

※1 Appearance is not a full scale.
 ※2 Another lead length is available.

● You can get more information about Sound Components by visiting the URL below or right QR code.
<http://www.murata.com/en-global/products/sound>



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