



### Features and Benefits

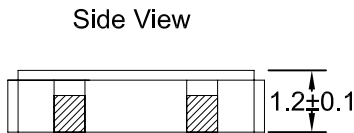
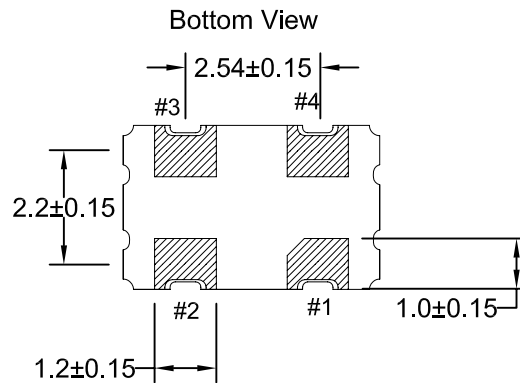
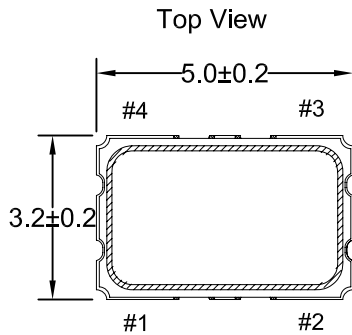
Typical 5.0x3.2x1.2 mm ceramic SMD package  
 Tight symmetry (45 to 55%) available

### Typical Applications

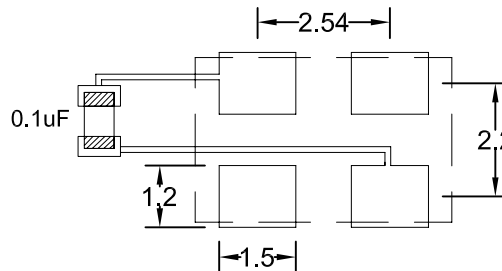
Wireless, WLAN, Fiber/10Gbit Ethernet  
 DSC, PDA, Notebook  
 Mobile phone, GPS

### Mechanical Drawing & Pin Connections

Drawing No: MD1+002, -1



#### Recommended Soldering Pattern



#### Pin Connection:

Pin#	Function
1	Tri-state
2	GND
3	Output
4	VDD

Unit in mm  
 1mm = 0.0394 inches



### Specifications

Specification	Conditon	3.3V		2.5V		1.8V		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation	$V_{DD} \pm 10\%$	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range		0.0137	160	0.0137	160	0.0137	135	MHz
Standard Frequency		2.048,25,26,27,50,66.667,100,125						MHz
Supply Current	$13.7\text{KHz} \leq F_o \leq 93\text{KHz}$	-	1	-	1	-	1	mA
	$0.3125\text{MHz} \leq F_o < 50\text{MHz}$	-	10	-	8	-	7	
	$40\text{MHz} \leq F_o < 75\text{MHz}$	-	20	-	18	-	15	
	$75\text{MHz} \leq F_o < 135\text{MHz}$	-	35	-	30	-	25	
	$135\text{MHz} \leq F_o$	-	45	-	40	-	-	
Output Level(CMOS)	Output High	2.97	-	2.25	-	1.62	-	V
	Output Low	-	0.33	-	0.25	-	0.18	
Transition Rise/Fall Time*	$13.7\text{KHz} \leq F_o \leq 93\text{KHz}$	-	50	-	50	-	50	nSec
	$0.3125\text{MHz} \leq F_o < 100\text{MHz}$	-	5	-	5	-	5	
	$100\text{MHz} \leq F_o$	-	3	-	3	-	3	
Start Time		-	5	-	5	-	5	mSec
Output Drive Capability(CL)		-	15	-	15	-	15	pF
Tri-State(Input to Pin1)	Enable (High voltage or floating)	2.31	-	1.75	-	1.26	-	V
	Disable (Low voltage or GND)	-	0.99	-	0.75	-	0.54	
Period Jitter(Pk-Pk)		-	40	-	40	-	40	pSec
RMS Phase Jitter	Integrated 12KHz to 20MHz	-	1	-	1	-	1	pSec
Standby Current		-	10	-	10	-	10	uA
Aging	@25°C 1 <sup>st</sup> year	-	±3	-	±3	-	±3	ppm
Storage Temp. Range		-55°C to +125°C						°C

Note: \*Transition times are measured between 10% and 90% of  $V_{DD}$  with an output load of 15pF

### Frequency Stability vs. Temperature

	±20PPM	±25PPM	±50PPM
-10°C to +60°C	Available	Available	Available
-20°C to +70°C	Conditional	Available	Available
-40°C to +85°C	Conditional	Available	Available
-40°C to +125°C	Not Available	Not Available	Available

Note: Inclusive of calibration @25°C, operating temperature range, input voltage variation, load variation, aging (1<sup>st</sup> year), shock and vibration.