



Features and Benefits

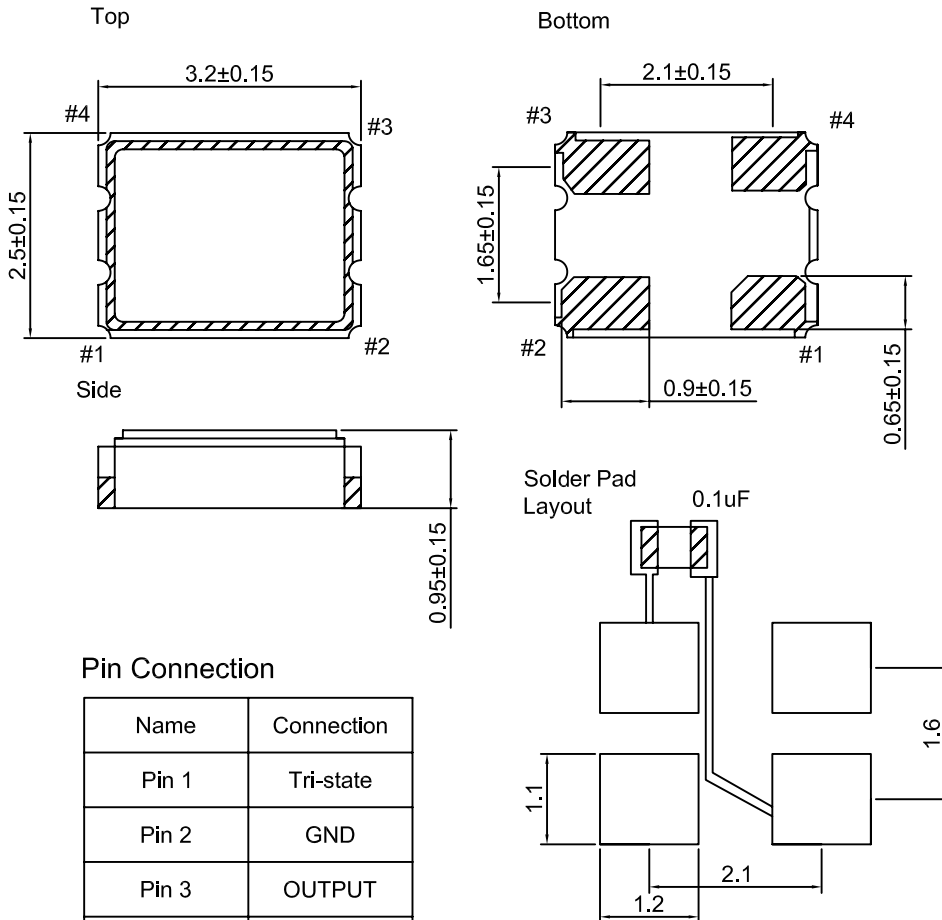
Typical 3.2x2.5x0.95 mm ceramic SMD package
 Tight symmetry(45 to 55%) available
 Operation voltage: 1.8V, 2.5V, 3.3V

Typical Applications

WIFI/WiMAX, WLAN
 DSC, Set-top Box, HDTV
 Mobile phone

Mechanical Drawing & Pin Connections

Drawing No: MD16002+-1



Pin Connection

Name	Connection
Pin 1	Tri-state
Pin 2	GND
Pin 3	OUTPUT
Pin 4	VDD

Unit in mm

1mm = 0.0394 inches

To ensure optimal oscillator performance, place a by-pass capacitor of 0.1µF as close to the part as possible between Vdd and GND pads.



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		1.25	125	1.25	125	1.25	125	MHz
Standard Frequency		24, 26, 32, 38.4, 40						MHz
Supply Current	$1.25\text{MHz} \leq F_o < 100\text{MHz}$	-	15	-	10	-	7	mA
	$100\text{MHz} \leq F_o \leq 125\text{MHz}$	-	25	-	20	-	12	
Duty Cycle		45	55	45	55	45	55	%
Output Level(CMOS)	Output High	2.97	-	2.25	-	1.62	-	V
	Output Low	-	0.33	-	0.25	-	0.18	
Transition Rise/Fall Time*	$1.25\text{MHz} \leq F_o < 20\text{MHz}$	-	4	-	4	-	5	nSec
	$20\text{MHz} \leq F_o < 80\text{MHz}$	-	3	-	3	-	4	
	$80\text{MHz} \leq F_o \leq 125\text{MHz}$	-	3	-	3	-	4	
Start Time		-	2	-	2	-	2	mSec
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 st 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	Not Available	Available	Available

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