Dynamic Engineers Inc.

2550 Gray Falls Dr., Suite#128, Houston, TX, 77077
TEL: 1-281-870-8822 EMAIL: Sales@DynamicEng.com

Features and Benefits

Extended Operating Temperature Range -55°C to +125°C
1.8V, 2.5V or 3.3V supply
Frequency Range 1.25 MHz to 100 MHz
3.2 x 2.5 mm package
± 50 ppm total stability
Tight symmetry (45 to 55%) available
Low phase jitter: (25 pS Pk-Pk Period jitter, typical)
Tri-state enable / disable

Typical Applications

Extreme environment applications
Commercial space, car / aircraft engine and aerospace Oil drilling, geothermal
Industrial instrumentation

Description

A new series generation of extended temperature clock oscillators with the latest low jitter integrated circuit topologies.

## Mechanical Drawing & Pin Connections

Drawing No: **MD160027-1**

Unit:mm
1mm=0.0394nch

[TOP VIEW]

[BOTTOM VIEW]

[SIDE VIEW]
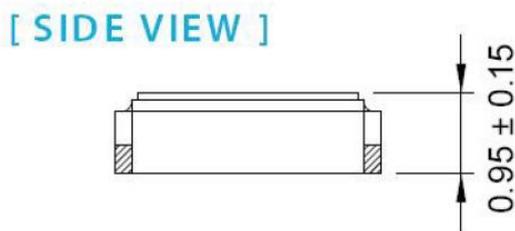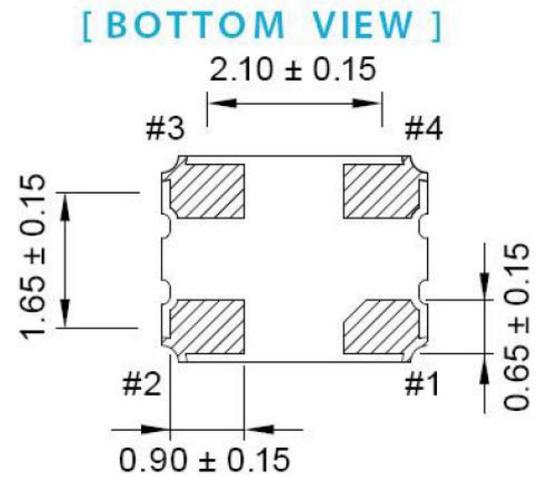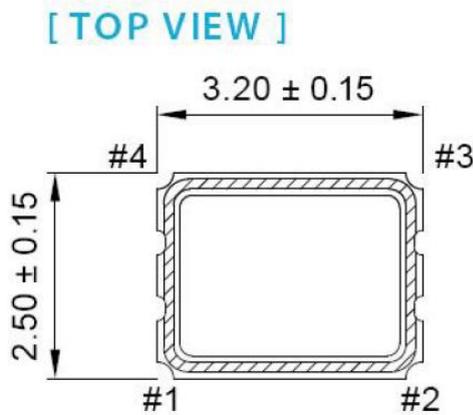
Pin#	Function
1	Tri-state
2	GND
3	Output
4	VDD

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Specifications

General Specifications						
Parameter	1.8V		2.5V		3.3V	
	Min.	Max.	Min.	Max.	Min.	Max.
Frequency Range	1.25 MHz	100 MHz	1.25 MHz	100 MHz	1.25 MHz	100 MHz
Power Supply Voltage (V_{DD}) ±10%	1.62V	1.98V	2.25V	2.75V	2.97V	3.63V
Supply Current Fo ≤ 80 MHz	-	5mA	-	8mA	-	10mA
Fo≥80 MHz	-	8mA	-	10mA	-	15mA
Duty Cycle	45%	55%	45%	55%	45%	55%
Output Level (CMOS) **Output High (Logic "1")**	1.62V	-	2.25V	-	2.97V	-
Output Low (Logic "0")	-	0.18V	-	0.25V	-	0.33V
Tri-State (Input to Pin 1) Enable (High voltage or floating)	1.26V	-	1.75V	-	2.31V	-
Disable (Low voltage or GND)	-	0.54V	-	0.75V	-	0.99V
Rise Time (Tr)/Fall Time (Tf) (10% V_{DD} – 90% V_{DD})	-	5 nSec	-	4 nSec	-	3 nSec
Output Load	15 pF					
Start-up Time	-	2 mSec	-	2mSec	-	2mSec
Period Jitter (pk-pk)	-	40 pSec	-	40 pSec	-	40 pSec
RMS Phase Jitter (Integrated 12 kHz – 20 MHz)	-	1 pSec	-	1 pSec	-	1 pSec
Aging (first year at 25°C)	-	±3 ppm	-	±3 ppm	-	±3 ppm
Storage Temp. Range	-55°C	+125°C	-55°C	+125°C	-55°C	+125°C

Stability vs. Temperature Range Availability	
	Temperature Range
Stability in ppm	-55°C to +125°C
±50	Available

Please contact Dynamic Engineers, Inc. for further details.