



### Features and Benefits

- Any frequency between 8 MHz to 1500 MHz
- 5.0 mm x 3.2 mm ceramic hermetically sealed package
- Low phase jitter: <1 pS (0.6 pS, typical) RMS
- Tri-state enable/disable
- Fast delivery

### Typical Applications

- Fiber Channel, Storage Area Network, High-Speed Gigabit Ethernet, SONET
- Smart Grid
- Enterprise Server, SAS / SATA
- Microprocessor / DSP / FPGA
- Broadband Access

### Description

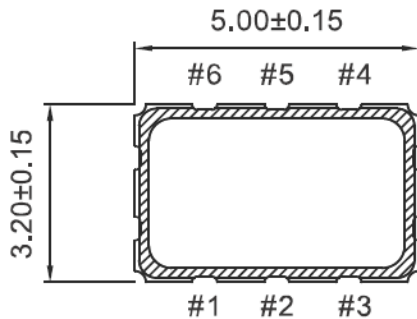
A new generation of low jitter clock oscillators with the latest low noise integrated circuit topologies.

### Mechanical Drawing & Pin Connections

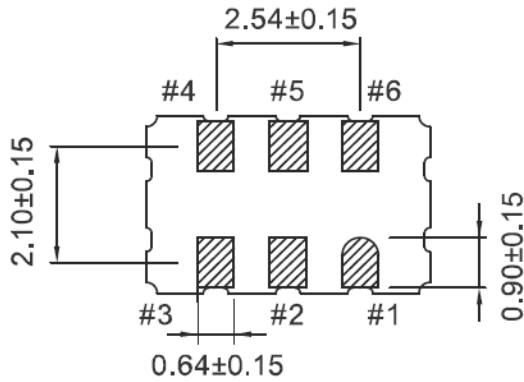
Drawing No:MD160024-1

Unit: mm  
1mm=0.0394inch

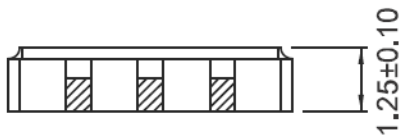
[ TOP VIEW ]



[ BOTTOM VIEW ]



[ SIDE VIEW ]



Pin#	Function
1	NC/Tri-State
2	Tri-State/NC
3	GND
4	Output
5	Comp.Output
6	VDD



Specifications

General Specifications										
Output Logic Type		LVPECL				LVDS				
		2.5V		3.3V		2.5V		3.3V		
Parameter		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Frequency Range		8 MHz	1500 MHz	8 MHz	1500 MHz	8 MHz	1500 MHz	8 MHz	1500 MHz	
Standard Frequency		106.25MHz, 125.00MHz, 133.33MHz, 150.00MHz, 155.52MHz, 156.25MHz, 187.50MHz, 212.50MHz, 312.50MHz, 622.08MHz								
Power Supply Voltage (V <sub>DD</sub> ) ±5%		2.375V	2.625V	3.135V	3.465V	2.375V	2.625V	3.135V	3.465V	
Supply Current 8 MHz ≤ F <sub>0</sub> ≤ 250 MHz		-	50mA	-	50mA	-	50mA	-	50mA	
Output "High" Voltage; V <sub>OH</sub>		1.475V	-	2.275	-	-	1.6V	-	1.6V	
Output "Low" Voltage; V <sub>OL</sub>		-	0.88V	-	1.68V	0.9V	-	0.9V	-	
Tri-State (Input to Pin 2 or Pin 1) Enable (High voltage or floating) Disable (Low voltage or GND)		1.75V	-	2.31V	-	1.75V	-	2.31V	-	
		-	0.75V	-	0.99V	-	0.75V	-	0.99V	
Frequency Stability		±50 ppm over -20°C to +70°C or -40°C to +85°C ±25 ppm over -20°C to +70°C ±25 ppm over -40°C to +85°C (depends on operating frequency; case by case)								
Phase Noise @ 156.25 MHz	100 Hz	-	-85 dBc/Hz	-	-85 dBc/Hz	-	-85 dBc/Hz	-	-85 dBc/Hz	
	1 kHz	-	-105 dBc/Hz	-	-105 dBc/Hz	-	-105 dBc/Hz	-	-105 dBc/Hz	
	10 kHz	-	-115 dBc/Hz	-	-115 dBc/Hz	-	-115 dBc/Hz	-	-115 dBc/Hz	
Rise Time (Tr)/Fall Time (Tf) (20% V <sub>DD</sub> – 80% V <sub>DD</sub> )		1.0ns max								
Start-up Time		10 ms max.								
RMS Phase Jitter (Integrated 12 kHz – 20 MHz)		1.0 pSmax								
Aging (first year at 25°C)		±3 ppm max.								
Storage Temp. Range		-55°C to +125°C								

Stability vs. Temperature Range Availability		
	Temperature Range	
Stability in ppm	-20°C to +70°C	-40°C to +85°C
±50	Available	Available
±25	Available	Conditional (depends on operating frequency; case by case)

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