



Features and Benefits

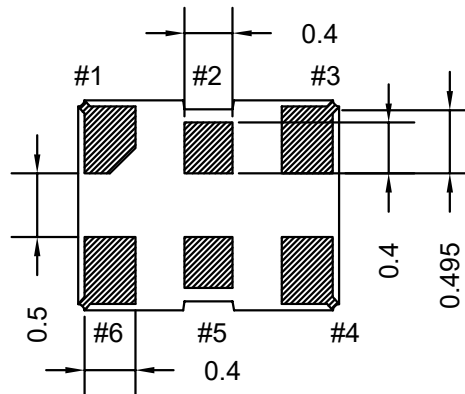
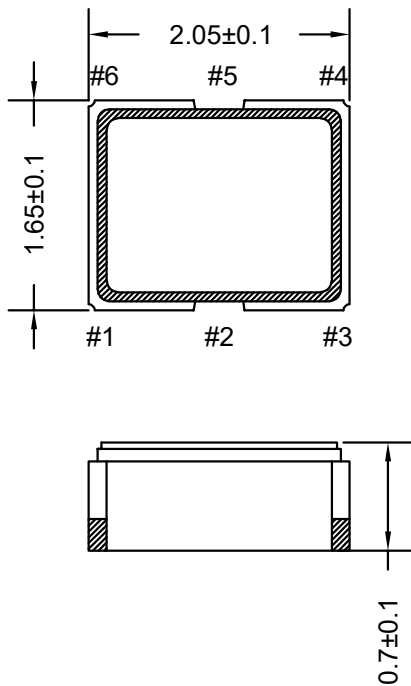
Frequency range: 100-170MHz
Output: HCSL
Supply voltage: 1.8/2.5/3.3V
Current: 38mA Max.
Frequency stability vs. temperature: ±20PPM
Aging: ±3PPM per year
Operating temperature: -40°C to +125°C
Size: 2.0x1.6x0.7 mm

Typical Applications

400Gbit/800Gbit/1.6Tbit Ethernet, MAN, SONET
Fiber Channel
Test Instrumentation

Mechanical Drawing & Pin Connections

Drawing No: MD240059-1



PIN	Function
#1	Tri-State
#2	N.C.
#3	GND
#4	Output
#5	Comp. Output
#6	Supply Voltage

Unit in mm
1mm = 0.0394 inches



Specifications

Specification	Condition	3.3V			2.5V			1.8V			Unit
		Min.	Typ.	Max.	Min.	Typ.	Max.	Min.	Typ.	Max.	
Supply Voltage Variation (Vcc)		Vcc - 10%	Vcc	Vcc+10%	Vcc - 10%	Vcc	Vcc+10%	Vcc - 5%	Vcc	Vcc+5%	V
Frequency Range		100		170	100		170	100		170	MHz
Standard Frequency		100,125,156.25									MHz
Supply Current	OE=Vcc		24	38		24	38		20	32	mA
Duty Cycle		45		55	45		55	45		55	%
Output Level (single ended)	Output High	0.55		0.9	0.55		0.9	0.5		1.0	V
	Output Low	-0.15		0.15	-0.15		0.15	-0.15		0.15	
Output Swing (single ended output signal)		0.55			0.55			0.5			V
Rise Time	Transition Time 20%-80%		0.3	0.6		0.3	0.6		0.3	0.6	nSec
Fall Time	Transition Time 20%-80%		0.3	0.6		0.3	0.6		0.3	0.6	nSec
Start-up Time	Start from t=0 to 90% Vcc			5			5			5	mSec
Tri-State	Enable	0.7x Vcc			0.7x Vcc			0.7x Vcc			V
	Disable			0.3x Vcc			0.3x Vcc			0.3x Vcc	
Standby Current	OE=GND			300			300			300	uA
Output Load	Terminated to GND	50 (to GND)									ohm
RMS Phase Jitter (Integrated 12kHz – 20MHz Offset)	F0= 156.25 MHz		55	100		55	100		55	100	fs
Aging / First Year	@+25°C			±3			±3			±3	PPM
Phase Noise, Fout=156.25MHz	@10KHz		-152			-152			-152		dBc/Hz
	@100KHz		-157			-157			-157		dBc/Hz
	@1MHz		-160			-160			-160		dBc/Hz
Operating Temperature		-40		+125	-40		+125	-40		+125	°C
Storage Temperature		-55		+150	-55		+150	-55		+150	°C

Note: not all combination of options is available. Other specifications may be available upon request. Specifications subject to change with notice.



Frequency Stability vs. Temperature

	±20PPM	±25PPM	±50PPM	±100PPM
-20°C to +70°C	Available	Available	Available	Available
-40°C to +85°C	Conditional	Available	Available	Available
-40°C to +105°C	Not Available	Not Available	Available	Available
-40°C to +125°C	Not Available	Not Available	Conditional	Available

Inclusive of Calibration @ 25°C, Operating Temperature Range, Input Voltage Variation, Load Variation, Aging (1st year), Shock, and Vibration

Ordering Information

XO2016BM-ULJ_HCSL	-	100MHz	-	x	x	x
Group				01	02	03

For example, XO2016BM-ULJ_HCSL-100MHz-1-1-1 denotes the XO has the following specifications:

Temperature Range: -20°C to +70°C
 Stability Over Temperature: ±20PPM
 Supply Voltage: 3.3V
 Frequency: 100MHz

01	Temperature Range
Code	Specification
1	-20°C to +70°C
2	-40°C to +85°C
3	-40°C to +105°C
4	-40°C to +125°C

02	Spec	Frequency Stability
Code	Spec	Temperature range code available
1	±20PPM	1
2	±25PPM	1,2,
3	±50PPM	1,2,3
4	±100PPM	1,2,3,4

03	Supply Voltage
Code	Specification
1	3.3V
2	2.5V
3	1.8V