



Dynamic Engineers Inc.

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FXO5300BM-LVPECL

5.0x3.2mm SMD Crystal Oscillator

Features and Benefits

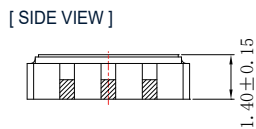
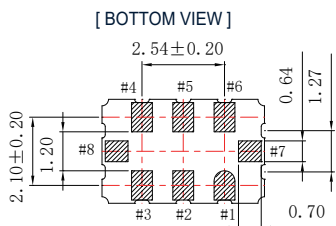
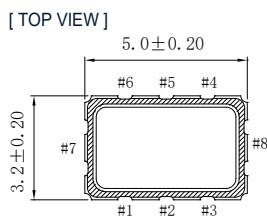
- Low Power Supply Voltage: 3.3, 2.5V supply options
- Clock Output: LVPECL
- Output frequency support from 15MHz to 2.1GHz
- Ultra Low Noise, Phase Jitter < 300 fs
- (Typical: 150 fs at 12kHz to 20MHz frequency offsets)
- Tri-state enable / disable mode.
- Temperature Range: -40°C to +85°C
- Pb-free/RoHS Compliant

Typical Applications

- SONET/SDH,. Gigabit Ethernet.
- Storage Area Networking (SAN)
- SD/HD video
- FPGA clock generation

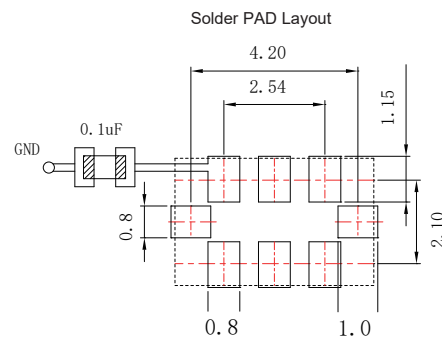
Mechanical Drawing & Pin Connections

Drawing No: MD200027-1



PIN#	FUNCTION
1	NC
2	OE
3	GND
4	Output
5	Comp.Output
6	VDD
7	NC
8	NC

Unit in mm
1mm = 0.0394 inches





Specifications

Specification	Condition	3.3V		2.5V		Unit
		Min.	Max.	Min.	Max.	
Supply Voltage Variation		V _{DD} -10%	V _{DD} +10%	V _{DD} -10%	V _{DD} +10%	V
Frequency Range		15	2100	15	2100	MHz
Standard Frequency		100, 106.25, 125, 156.25, 187.5, 200, 212.5, 266, 300, 312.5, 400, 491.52, 622.08, 644.531250				MHz
Supply Current		-	110	-	95	mA
Duty Cycle		45	55	45	55	%
Output Level	Output High	V _{DD} -1.165	V _{DD} -0.8	V _{DD} -1.165	V _{DD} -0.8	V
	Output Low	V _{DD} -2.0	V _{DD} -1.55	V _{DD} -2.0	V _{DD} -1.55	
Transition Rise/Fall Time		-	0.35	-	0.35	nSec
Start Time		-	8	-	8	mSec
Tri-State(Input to Pin2)	Enable	0.7xV _{DD}	-	0.7xV _{DD}	-	V
	Disable	-	0.3x V _{DD}	-	0.3xV _{DD}	
Standby Current		-	110	-	95	mA
RMS Phase Jitter (12KHz to 20MHz)		150	300	150	300	fs
Period Jitter		-	50	-	50	ps
Phase Noise, At V _{DD} =3.3V, f _{out} =873.515MHz		TYP	MAX	TYP	MAX	
	1KHz offset	-106	-	-106		dBc/Hz
	10KHz offset	-115	-	-115		dBc/Hz
	100KHz offset	-123	-	-123		dBc/Hz
	1MHz offset	-133	-	-133		dBc/Hz
	20MHz offset	-150	-	-150		dBc/Hz

Frequency Stability vs. Temperature

	±20PPM	±25PPM	±30PPM	±50PPM
-20°C to +70°C	Conditional	Available	Available	Available
-40°C to +85°C	Not Available	Conditional	Available	Available

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