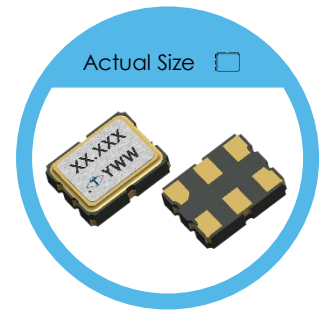


OA-M Type High Frequency up to 1.5GHz FASTXO 3.2 x 2.5 mm SMD Differential Output Crystal Oscillator

FEATURES

- Low Power Supply Voltage: 3.3V, 2.5V Supply Options
- Differential Output : LVPECL, LVDS
- Frequency Support from 10MHz to 1.5GHz
- Low Noise Typical: 0.6ps at 12kHz to 20MHz Frequency Offsets
- Temperature Range: -40 to 85°C Operation
- Pb-free/RoHS Compliant

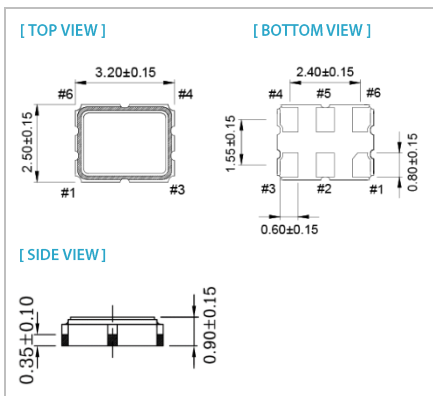


RoHS Compliant

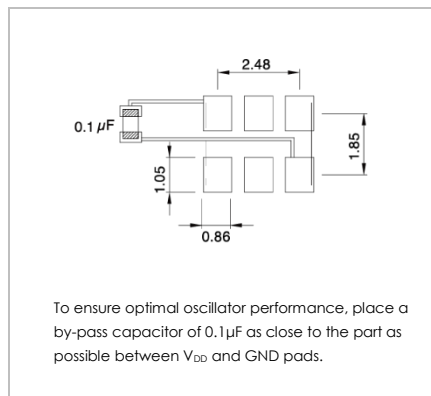
TYPICAL APPLICATION

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

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



PIN FUNCTION (mm)

PIN#	FUNCTION
1	NC/Tri-State
2	Tri-State/NC
3	GND
4	Output
5	Comp. Output
6	Supply Voltage

ELECTRICAL SPECIFICATION

Parameter	LVPECL				LVDS				Unit	Test Condition	
	3.3V		2.5V		3.3V		2.5V				
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.			
Supply Voltage Variation (V _{DD})	V _{DD} - 10%	V _{DD} + 10%	V _{DD} - 5%	V _{DD} + 5%	V _{DD} - 10%	V _{DD} + 10%	V _{DD} - 5%	V _{DD} + 5%	V		
Frequency Range	10	1500	10	1500	10	1500	10	1500	MHz		
Supply Current	50		45		45		35		mA		
Output Level	Output High	2.27	2.7	1.47	1.9	1.6		1.6	V		
	Output Low	1.45	1.7	0.65	0.9	0.9	0.9		V		
Transition Time (10%-90%)	Rise Time / Fall Time		1.0		1.0		1.0		nSec		
Duty Cycle	45		55		45		55		%		
Startup Time	10		10		10		10		mSec		
Tri-State Mode (Input to Pin 2)	Enable	0.7 x V _{DD}		0.7 x V _{DD}		0.7 x V _{DD}		0.7 x V _{DD}		V	
	Disable	0.3 x V _{DD}		0.3 x V _{DD}		0.3 x V _{DD}		0.3 x V _{DD}		V	
Stand by Current	18		18		18		18		mA		
Output Loading	50Ω into V _{DD} -2				100Ω						
Phase Noise	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.			
At V _{DD} =3.3V, f _{out} =250MHz	1kHz offset	-107		-107		-107		-107		dBc/Hz	
	10kHz offset	-111		-111		-111		-111		dBc/Hz	
	100kHz offset	-114		-114		-114		-114		dBc/Hz	
	1MHz offset	-125		-125		-125		-125		dBc/Hz	
	20MHz offset	-147		-147		-147		-147		dBc/Hz	
RMS Phase Jitter (12 kHz~20 MHz) (Fractional Mode)	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	pSec		
RMS Phase Jitter (12 kHz~20 MHz) (Integer Mode)	0.6	1.2	0.6	1.2	0.6	1.2	0.6	1.2	pSec		

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm	±25	±50
-10 ~ +60		○	○
-20 ~ +70		○	○
-40 ~ +85		△	○
-40 ~ +105		X	○

○: Available △: Conditional X: Not Available
 Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration

Note: not all combination of options are available. Other specifications may be available upon request.
 Specifications subject to change without notice.