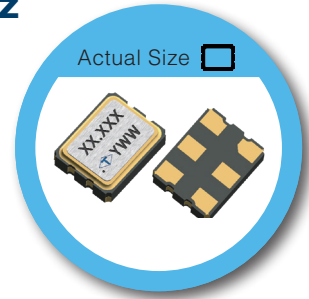


OA-M Type High Frequency up to 1.5GHz FASTXO 3.2 x 2.5 mm SMD Differential Output Crystal Oscillator



RoHS Compliant

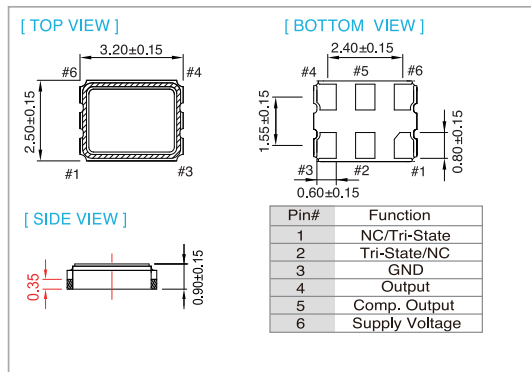
FEATURE

- Low power supply voltage: 3.3, 2.5 supply options
- Differential output : LVPECL, LVDS
- Frequency support from 10MHz to 1.5GHz
- Low noise typical: 0.6 ps at 12kHz to 20MHz frequency offsets
- Temperature range: -40 to 85 °C operation
- Pb-free/RoHS compliant

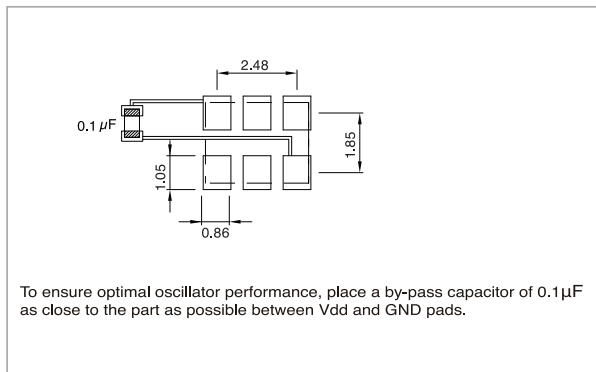
TYPICAL APPLICATION

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

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	LVPECL				LVDS				unit	
	3.3 V		2.5 V		3.3 V		2.5 V			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation (V _{DD})	VDD-10%	VDD+10%	VDD-5%	VDD+5%	VDD-10%	VDD+10%	VDD-5%	VDD+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	-	
Transition Time (10%-90%)	Rise Time / Fall Time	-	1.0	-	1.0	-	1.0	-	1.0	nSec
		-	-	-	-	-	-	-	-	-
Duty Cycle	-	45	55	45	55	45	55	45	55	%
Startup Time	-	-	10	-	10	-	10	-	10	mSec
Tri-State mode (Input to Pin 2)	Enable	0.7 x VDD	-	0.7 x VDD	-	0.7 x VDD	-	0.7 x VDD	-	V
	Disable	-	0.3 x VDD	-	0.3 x VDD	-	0.3 x VDD	-	0.3 x VDD	
Stand by Current	-	-	18	-	18	-	18	-	18	mA
Output Loading	50Ω into VDD-2V				100Ω					
Phase Noise	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.		
At VDD=3.3V, f _{out} =250MHz	1kHz offset	-107	-	-107	-	-107	-	-107	-	dBc/Hz
	10kHz offset	-111	-	-111	-	-111	-	-111	-	
	100kHz offset	-114	-	-114	-	-114	-	-114	-	
	1MHz offset	-125	-	-125	-	-125	-	-125	-	
	20MHz offset	-147	-	-147	-	-147	-	-147	-	
RMS Phase Jitter (12kHz to 20MHz)(fractional mode)	0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	pSec	
RMS Phase Jitter (12kHz to 20MHz)(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	△	○	○

* ○ : 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.