

OB-K Type High Frequency up to 1.5GHz

2.5 x 2.0 mm SMD

Differential Crystal Oscillator

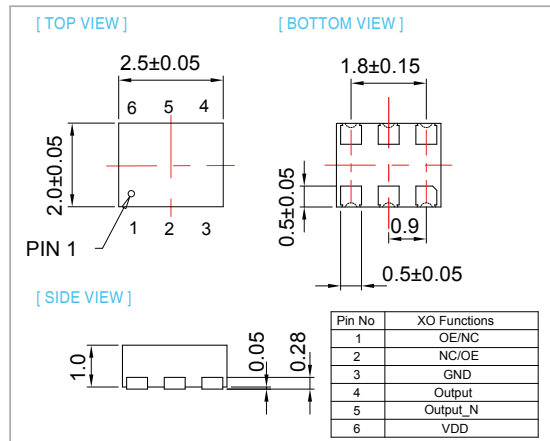
FEATURE

- Low power supply voltage: 3.3, 2.5 supply options
- Differential output : LVPECL, LVDS
- Frequency support from 10MHz to 1.5GHz
- RMS Phase Jitter, Typical: 0.5ps at 12kHz to 20MHz offset frequency integration
- Temperature range: -40 to 105 °C operation
- Pb-free/RoHS compliant
- MSL Level 1

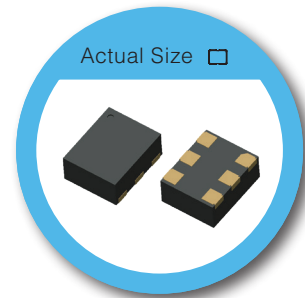
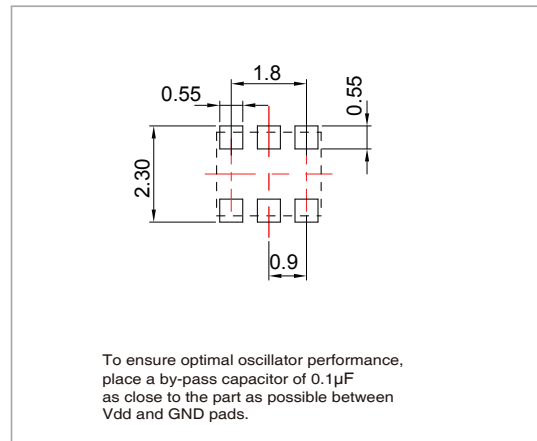
TYPICAL APPLICATION

- High-Speed Gigabit Ethernet, Fiber Channel, Storages Area Network, SONET
- Enter Sever, SAS/SATA
- Microprocessors/DSP/FPGA
- Broadband Access
- Smart Grid

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



RoHS Compliant

ELECTRICAL SPECIFICATION

Parameter	LVPECL								Unit	
	3.3V		2.5V		3.3V		2.5V			
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation (VDD)	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	-	V
Transition Time (20%-80%)	Rise Time / Fall Time	-	0.3	-	0.3	-	0.5	-	0.5	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	V
Stand by Current	-	18	-	18	-	18	-	18	mA	
Output Loading	50 Ω into VDD-2V				100 Ω					
Phase Noise	Typ.	Max.	Typ.	Max.	Typ.	Max.	Typ.	Max.		
	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 (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	0.5	1	0.5	1	0.5	1	0.5	1	pSec	
RMS Phase Jitter (12KHz to 20MHz) @100MHz, 125MHz, 156.25MHz VDD=3.3V	0.5	0.8	0.5	0.8	0.5	0.8	0.5	0.8	pSec	

Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.

FREQ. STABILITY vs. TEMP. RANGE

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

* O: Available Δ: Conditional X: Not available

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

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