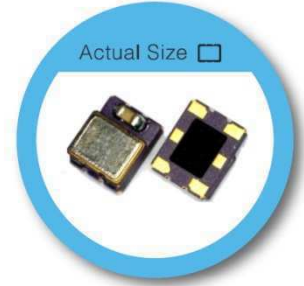


High Frequency Temperature Compensate Crystal Oscillator
3.2 x 2.5 mm SMD TCXO Frequency up to 1.5GHz

FEATURE

- Low power supply voltage: 3.3V and 2.5V options
- Clock output: CMOS, LVPECL, LVDS options
- CMOS output frequency support from 10MHz to 250MHz
- Differential output frequency support from 10MHz to 1.5GHz
- Low Phase Jitter typical 0.8 pS RMS at 12kHz to 20MHz frequency offsets
- Low current consumption.
- Frequency Stability ± 2.0 ppm over -40°C to 85°C
- Pb-free/RoHS compliant



RoHS Compliant

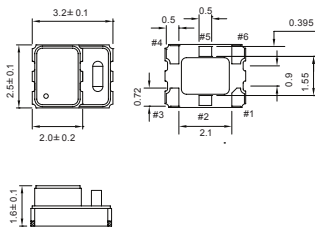
TYPICAL APPLICATION

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

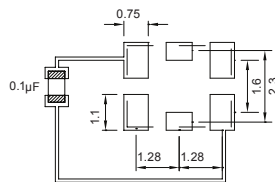
Part Numbering Example: CTXXPL3LBJC-61.3800

CTXXP	L	3	L	B	J	C	61.38
SERIES	OUTPUT	PACKAGING OPTIONS	VOLTAGE	ADDED FEATURES	OPERATING TEMP.	STABILITY	FREQUENCY
CTXXP	C=CMOS	3=3.2X2.5	L=3.3V	Blank=Bulk	B=0~+55	A= ± 0.5	
	L=LVDS		S=2.5V	Z=Tape and Reel	I=-10~+60	B= ± 1.0	
	E=LVPECL				J=-10~+70	P= ± 1.5	
					C=-20~+70	C= ± 2.0	
					H=-30~+75	D= ± 2.5	
					D=-30~+85		
					L=-40~+85		

DIMENSION (mm)



SOLDER PAD LAYOUT (mm)



PIN FUNCTION

Type	CMOS	Differential
Pad	Function	Function
1	No Connection	
2	Tri-State Control	
3	GND	
4	Output	Output
5	No Connection	Comp. Output
6	Supply Voltage (VDD)	

PIN ASSIGNMENTS

ELECTRICAL SPECIFICATION

Parameter		LVPECL		LVDS		CMOS		Unit
		Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage (VDD)		3.3V or 2.5V		3.3V or 2.5V		3.3V or 2.5V		V
Supply Voltage Variation		VDD-5%	VDD+5%	VDD-5%	VDD+5%	VDD-5%	VDD+5%	V
Frequency Range		10	1500	10	1500	10	250	MHz
Supply Current		-	54	-	45	-	40	mA
Output Level	Output High	VDD - 1.03	VDD - 0.6	-	1.6	90% VDD		V
	Output Low	VDD - 1.85	VDD - 1.6	0.9	-	10%VDD		V
Transition Time	Rise Time / Fall Time	-	0.5 (20% - 80%)	-	0.5 (20% - 80%)	3.0 (10% - 90%)		nSec
Duty Cycle		45	55	45	55	45	55	%
Startup Time		-	5	-	5	-	5	mSec
Tri-State mode (Input to Pin 2)	Enable	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	
Stand by Current		-	18	-	18	-	18	mA
Output Loading		50 Ω into VDD-2V		100 Ω		-	15pF	
Phase Noise		Typ.	Max.	Typ.	Max.	Typ.	Max.	
At VDD=3.3V, f _{out} =250MHz	1kHz offset	-107	-	-107	-	-111	-	dBc/Hz
	10kHz offset	-111	-	-111	-	-123	-	dBc/Hz
	100kHz offset	-114	-	-114	-	-125	-	dBc/Hz
	1MHz offset	-125	-	-125	-	-135	-	dBc/Hz
	20MHz offset	-147	-	-147	-	-155	-	dBc/Hz
RMS Phase Jitter (12KHz to 20MHz)		0.8	1.5	0.8	1.5	0.8	1.5	pSec

Frequency Stability vs. Temperature Range

Temp. (°C)	ppm	±1.0	±2.0	±2.5
		-30~+85	○	○
-40~+85	△	○	○	

* ○: Standard △: Conditional X: Not available
 *Inclusive of calibration @ 25°C, operating temperature load variation, aging (1st year), shock, and vibration