

Type TXP high frequency smd TCXO
(10 ~ 1500)MHz, (2.5 and 3.3)Vd.c.
supply options
(3.2 x 2.5)mm, height 1.6mm
tolerance from ±1.0ppm

A miniature, low profile, high frequency, smd voltage controlled TCXO manufactured over the frequency range of 10MHz to 1500MHz, low phase jitter, tolerance from ±1.0ppm, low ageing and low power consumption.

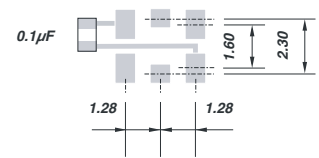
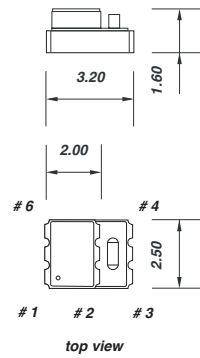
Standard package for new designs and volume applications combining small size and tight tolerance over an extended temperature range.

Supplied on tape and reel; 3000 pieces per reel, RoHS compliant.

Frequency stability -vs- temperature:

TEMP. RANGE			
(-30 +85)°C	±1.0ppm	±2.0ppm	±2.5ppm
(-40 +85)°C	-	±2.0ppm	±2.5ppm

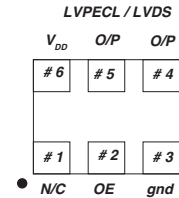
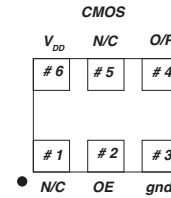
Dimensions(mm)



suggested land pattern
pads 1,3,4,6: size(0.75 x 1.1)mm
pads 2,5: size(0.75 x 0.7)mm
connect 0.1µF capacitor between V_{DD} and ground: pads 3 and 6

pad connections: CMOS
1 N/C
2 tri-state/ OE
3 ground
4 output
5 N/C
6 supply V_{DD}

pad connections: differential output
1 N/C
2 tri-state/ OE
3 ground
4 output
5 complimentary output
6 supply V_{DD}



Electrical specification:

	LVPECL		LVDS		CMOS			
	Min	Max.	Min.	Max.	Min.	Max.		
supply voltage ±5%	3.3 or 2.5		3.3 or 2.5		3.3 or 2.5		Vd.c.	
frequency range	10	1500	10	1500	10	250	MHz	
supply current		54		45		40	mA	
output level	High	V _{DD} -1.03	V _{DD} -0.6	-	1.6	90% V _{DD}	-	V
	Low	V _{DD} -1.85	V _{DD} -1.6	0.9	-	-	10%V _{DD}	
transition time: rise/ fall time	-	0.5(20 ~ 80)%	-	1(20 ~ 80)%	-	3(20 ~ 80)%	nsec	
duty cycle	45	55	45	55	45	55	%	
start up time	-	5	-	5	-	5	milli sec	
tri - state mode input to pin 2	enable	0.7 x V _{DD}	-	0.7 x V _{DD}	-	0.7 x V _{DD}	-	V
	disable	-	0.3V _{DD}	-	0.3V _{DD}	-	0.3V _{DD}	
standby current	-	20	-	20	-	20	mA	
output loading	50 ohms into V _{DD} -2V		100 ohms		-	15pF		
phase noise	Typ.	Max.	Typ.	Max.	Typ.	Max.		
at V _{DD} = 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)								
fractional mode	0.8	1.5	0.8	1.5	0.8	1.5	pico sec	
integer mode	0.6	1.2	0.6	1.2	0.6	1.2	pico sec	

* frequency at +25°C one hour after reflow

Ordering information:

EXAMPLE	type TXP smd TCXO, +3.3Vd.c., 100MHz, $\pm 2.0\text{ppm}(-30 +85)^{\circ}\text{C}$, CMOS
TFC PART NUMBER	TXP 100M E T C D J
TXP	type: TXP = TCXO type TXP
100M	frequency: 100MHz, frequency range (10 ~ 1500)MHz LVPECL and LVDS, (10 ~ 250)MHz CMOS
E	supply voltage: E = +3.3Vd.c.
T	TCXO
C	frequency stability: C = $\pm 2\text{ppm}$
D	temperature range: D = $(-30 +85)\text{Deg C}$
J	CMOS 15pF
OPTIONS	
supply voltage	J: +2.5Vd.c., E: +3.3Vd.c.
frequency stability	B: $\pm 1.0\text{ppm}$, C: $\pm 2.0\text{ppm}$, D: $\pm 2.5\text{ppm}$, E: $\pm 3.0\text{ppm}$
temperature range	D: $(-30 +85)^{\circ}\text{C}$, L: $(-40 +85)^{\circ}\text{C}$
output	L = LVPECL, V = LVDS, J = CMOS