

SMD Crystal Clock Oscillator

3.2 mm x 2.5 mm / 100 MHz to 1000 MHz / VDS, LVPECL / 2.5 V, 3.3 V

FCXO-04

FEATURES

- Wide output frequency range 100 MHz to 1000 MHz
- LVDS or LVPECL output formats
- Low phase jitter 0.5 ps Typ.
- OE function



(3.2 × 2.5 × 0.85 mm)



APPLICATIONS

- GbE, PCIe, Fibre channel, Server and storage, Computing, Multimedia, Test and measurement, etc.

STANDARD SPECIFICATIONS

Item			Symbol	Conditions	Specifications			Unit
					Min	Typ	Max	
Output frequency			fo	Select from the list below	-	-	-	-
Storage temperature range			T_stg	-	-55	-	+125	°C
Operating temperature range			T_use	-	-40	-	+85	°C
Frequency tolerance			f_tol	-	-50	-	+50	ppm
Supply voltage		Type L	V _{CC}	-	2.97	3.3	3.63	V
		Type N	V _{CC}	-	2.375	2.5	2.625	V
LVDS	Current consumption		I _{CC}	-	-	23	-	mA
	Output voltage		V _{OD}	-	175	350	-	mV
	VOD change		ΔV _{OD}	-	-	-	50	mV
	Offset voltage		V _{OS}	-	-	1.25	-	V
	VOS change		ΔV _{OS}	-	-	-	50	mV
	LVDS load condition		L_LVDS	Between Outputs	-	100	-	Ω
	Rise time		tr	20 % to 80 %	-	350	500	ps
	Fall time		tf	80 % to 20 %	-	350	500	ps
	Symmetry		SYM	-	45	-	55	%
LVPECL	Current consumption		I _{CC}	-	-	54	-	mA
	Output voltage		V _{OH}	-	V _{CC} - 1.03	-	V _{CC} - 0.6	V
			V _{OL}	-	V _{CC} - 1.85	-	V _{CC} - 1.6	V
	ECL load condition		L_ECL	Terminated to V _{CC} - 2 V	-	50	-	Ω
	Rise time		tr	20 % to 80 %	-	-	250	ps
	Fall time		tf	80 % to 20 %	-	-	250	ps
Symmetry		SYM	-	45	-	55	%	
OE Function	Input voltage	Output Enable	V _{IH}	-	0.7V _{CC}	-	1.1V _{CC}	V
		Output Disable	V _{IL}	-	-	-	0.3V _{CC}	V
	Disable current		I_dis	OE = GND	-	16	-	mA
	Enable time		-	OE = GND → V _{CC}	-	-	100	ns
	Disable time		-	OE = V _{CC} → GND	-	-	50	ns
Start-up time			T_str	-	-	-	10	ms
Phase jitter			-	12 kHz to 20 MHz	-	0.5	1	ps

SELECTABLE OUTPUT FREQUENCIES

100.000000 MHz	122.880000 MHz	125.000000 MHz	155.520000 MHz	156.250000 MHz
166.666667 MHz	200.000000 MHz	212.500000 MHz	250.000000 MHz	311.040000 MHz
312.500000 MHz	322.265625 MHz	400.000000 MHz	425.000000 MHz	491.520000 MHz
500.000000 MHz	622.080000 MHz	625.000000 MHz	644.531250 MHz	1000.000000 MHz

Please contact us for frequencies not listed here.

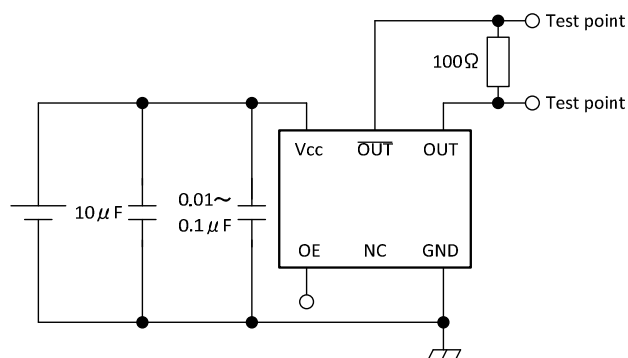
SMD Crystal Clock Oscillator

3.2 mm x 2.5 mm / 100 MHz to 1000 MHz / LVDS, LVPECL / 2.5 V, 3.3 V

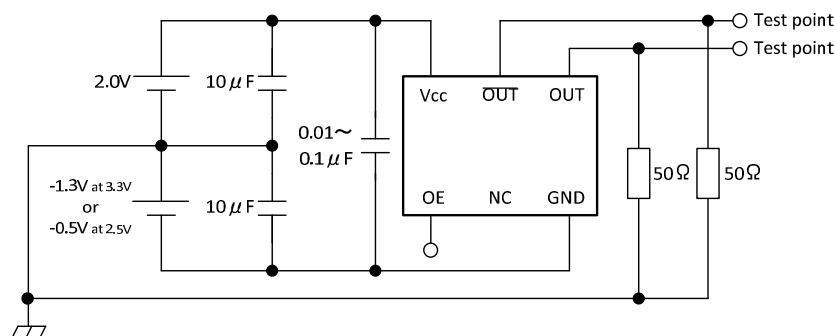
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MEASUREMENT CIRCUITS

LVDS

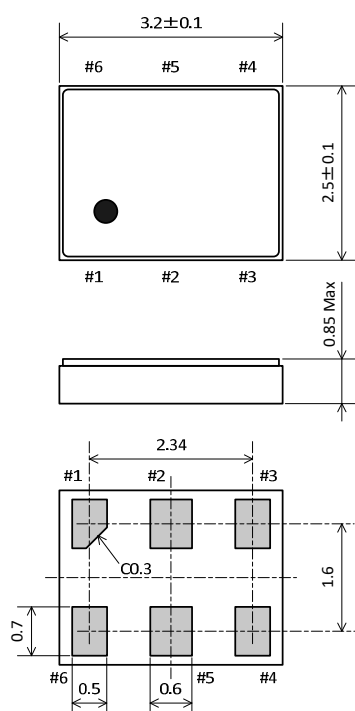


LVPECL



OUTLINE DIMENSIONS

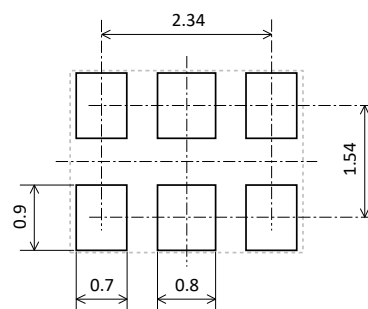
(Unit: mm)



Weight (TYP.)	21 mg
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RECOMMENDED LAND PATTERN

(Unit: mm)



#1	Output Enable = Logic High,"1", Vcc or Open Output Disable = Logic Low,"0", GND
#2	No Connect
#3	GND
#4	OUT
#5	OUT
#6	Vcc

GENERAL NOTES

- Certain combinations of standard options may be classified as high-spec models.
- Please contact us for specifications that do not match the standard specifications.
- The information in this document is subject to change without notice.
- For stable operation, a 0.01 µF to 0.1 µF bypass capacitor should be placed between V_{CC} and GND as close as possible to the product.