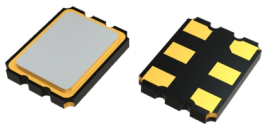
High Frequency up to 1.5GHz 3.2 x 2.5 mm SMD DifferentialOutput Voltage Controlled Crystal Oscillator

Feature

- Low power supply voltage: 3.3V, 2.5V supply options
- Differential output : LVPECL, LVDS
- Frequency support from 10MHz to 1.5GHz
- Low phase jitter typical: 0.8 ps RMS from 12KHz to 20MHz
- Wide frequency control range
- Pb-free/RoHS compliant

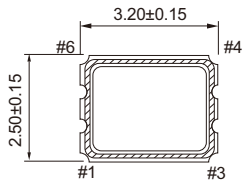


Electrical Specifications

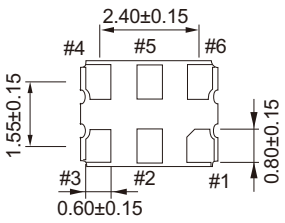
Parameter		LVPECL				LVDS				Unit
		3.3V		2.5V		3.3V		2.5V		
		Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation		VDD-10%	VDD+10%	VDD-5%	VDD+5%	VDD-10%	VDD+10%	VDD-5%	VDD+5%	V
Frequency Range		10	1500	10	1500	10	1500	10	1500	MHz
Supply Current		-	50	-	45	-	45	-	35	mA
Duty Cycle		45	55	45	55	45	55	45	55	%
Transition Time : Rise/Fall Time		-	1.0	-	1.0	-	1.0	-	1.0	nSec
Output Level	Out High(Logic"1")	2.27	2.7	1.47	1.9		1.6		1.6	V
	Out Low(Logic"0")	1.45	1.7	0.65	0.9	0.9		0.9		
Start Time		-	10	-	10	-	10	-	10	mSec
Tri-State (Input to Pin 2)	Enable(High Voltage or floating)	$0.7V_{DD}$	-	$0.7V_{DD}$	-	$0.7V_{DD}$	-	$0.7V_{DD}$	-	V
	Disable(Low Voltage or GND)	-	$0.3\ V_{DD}$	-	$0.3\ V_{DD}$	-	$0.3\ V_{DD}$	-	$0.3\ V_{DD}$	
Standby by Current		-	18	-	18	-	18	-	18	mA
Output Loading		50Ω into VDD-2V				100Ω				
RMS Phase Jitter (integrated12KHz to 20MHz)		0.8	1.5	0.8	1.5	0.8	1.5	0.8	1.5	pSec
Control Voltage Function on Pin1										
Control Voltage Center		1.65		1.25		1.65		1.25		V
Control Voltage Range		0.3	3	0.3	3	0.3	3	0.3	3	V
Absolute Pulling Range (APR)		±50	±150	±50	±150	±50	±150	±50	±150	ppm
Linearity		5	10	5	10	5	10	5	10	%
Modulation Bandwidth		10	-	10	-	10	-	10	-	kHz
VC Input Impedance		1	-	1	-	1	-	1	-	MΩ

Dimension(mm)

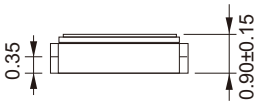
TOP VIEW



BOTTOM VIEW

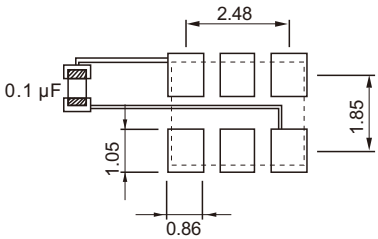


SIDE VIEW



PIN#	Function
1	VC
2	Tri-State
3	GND
4	Output
5	Comp. Output
6	Supply Voltage

Solder Pad Layout(mm)



To ensure optimal oscillator performance, place a by-pass capacitor of 0.1 μF as close to the part as possible between Vdd and GND pads.

FREQ. STABILITY vs. TEMP. RANGE

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

○: Available Δ:Conditional X: Not available

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