

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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Actual Size

OW Type 5.0 x 3.2 mm SMD LVPECL/LVDS Crystal Oscillator

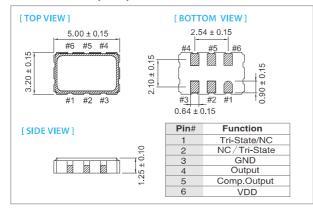
FEATURE

- Typical 5.0 x 3.2 x 1.25 mm hermetically sealed ceramic package.
- Very low jitter performance: typical 0.3 pS RMS from 12 k 20 MHz.
- Fundamental/3rd overtone crystal design.
- Output frequency up to 320 MHz.
- Operating temperature up to 125°C
- Tri-state enable/disable

TYPICAL APPLICATION

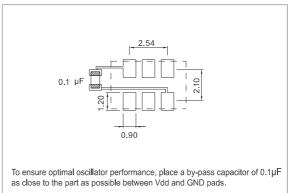
- 10Gbit Ethernet, Fiber Channel, Storage Area Network, SONET
- Enterprise Servers, Reference clocks for ADC and DAC
- Telecom

DIMENSION (mm)



RoHS Compliant

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	LVPECL				LVDS				
	3.3 V		2.5 V		3.3 V		2.5 V		unit
	Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) ±5%	3.135	3.465	2.375	2.625	3.135	3.465	2.375	2.625	V
Frequency Range	10	320	10	320	10	320	10	320	
Standard Frequency	25, 106.25, 125, 156.25, 161.1328, 212.5					MHz			
Supply Current 10 MHz ≤ Fo < 160 MHz		75	_	75	_	50	_	50	
160 MHz ≦ Fo < 250 MHz	_	100	_	100	_	50	_	50	mA
250 MHz ≦ Fo ≦ 320 MHz	_	100	-	100	_	65	_	65	
Output Level Output High (Logic "1")	2.275	_	1.475	-	_	1.6	_	1.6	V
Output Low (Logic "0")	_	1.68	_	0.88	0.9	_	0.9	_	
Transition Time: Rise/Fall Time+	_	1.0	_	1.0	_	1.0	_	1.0	nSed
Start Time	_	2	_	2	_	2	_	2	mSec
Tri-State(Input to Pin 2 or Pin 1)									
Enable (High voltage or floating)	2.31	_	1.75	_	2.31	_	1.75	_	V
Disable (Low voltage or GND)	_	0.99	-	0.75	_	0.99	_	0.75	v
RMS Phase Jitter (Integrated 12 KHz ~ 20 MHz)									
Fo < 80 MHz	_	1	_	1	_	1	_	1	pSec
80 MHz ≦ Fo <125 MHz	_	0.5	_	0.5	_	0.5	_	0.5	
125 MHz ≦ Fo <170 MHz	_	0.3	_	0.3	_	0.3	_	0.3	
170 MHz ≦ Fo <200 MHz	_	0.5	_	0.5	_	0.5	_	0.5	
200 MHz ≦ Fo	_	0.3	_	0.3	_	0.3		0.3	
Phase Noise@ 156.25 MHz 100 Hz	-95 -90 -125 -125		0	-90 -120		-90 -120		dBc/Hz	
1 kHz			-125						
10 kHz	-1-	40	-14	10	-1	40	-1	40	
Aging (@ 25°C 1st year)	_	±3	_	±3		±3	_	±3	ppm
Storage Temp. Range	- 55	125	-55	125	- 55	125	-55	125	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	±25	±50						
-10 ~ +60	0	0						
-20 ~ +70	0	0						
-40 ~ +85	\triangle	0						
-40 ~ +125	X	0						

^{* ○:} Available △:Conditional X: Not available

⁺ Transition times are measured between 20% and 80% of VDD.

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