

OMD Type

SMD2520 Crystal Oscillator Series

Feature

- ◆ Frequency Range: 0.032768~156.25MHz
- ◆ Typical 5.0 x 3.2 x 1.2 mm ceramic SMD package.
- ◆ Tri-state enable/disable.
- ◆ Packing : Tape & Reel, 1000pcs / Reel.



Typical Application

- ◆ xDSL, WLAN, Fiber/10G-Bit Ethernet
- ◆ Notebook, PDA
- ◆ VGA card, PC main board.

Electrical Specifications

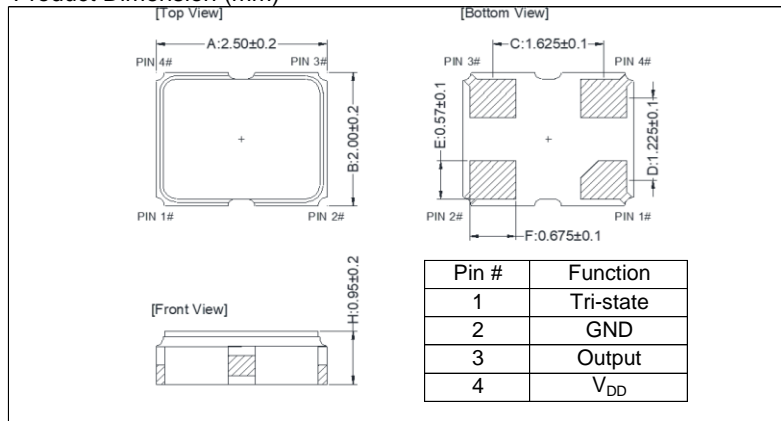
Parameter	Voltage						Unit	Remark	
	1.8V		2.5V		3.3V				
	Min	Max	Min	Max	Min	Max			
Supply Voltage Variation(V _{DD})	V _{DD} ± 10%V _{DD}		V _{DD} ± 10%V _{DD}		V _{DD} ± 10%V _{DD}		V	-	
Frequency Range	0.032768	125	0.032768	133	0.032768	156.25	MHz	-	
Standard Frequency	2.048, 12.288, 24, 25, 26, 27, 50, 66, 66.667, 100, 125						MHz	-	
Supply Current	F0 ≤ 1MHz	-	1	-	1	-	1	mA	Fundamental
	1MHz < F0 ≤ 70MHz	-	7	-	8	-	10	mA	Fundamental
	30MHz < F0 ≤ 70MHz	-	15	-	18	-	20	mA	3 rd Overtone
	70MHz < F0 < 133MHz	-	25	-	30	-	35	mA	3 rd Overtone
	133MHz ≤ F0	-	35	-	40	-	45	mA	3 rd Overtone
Output Level (CMOS) Output High ("1")	1.62	-	2.25	-	2.97	-	V	-	
Output Low ("0")	-	0.18	-	0.25	-	0.33	V	-	
Rise / Fall Time	F0 ≤ 1MHz	-	50	-	50	-	50	nSec	10%V _{DD} to 90%V _{DD}
	1MHz < F0 < 100MHz	-	5	-	5	-	5	nSec	Load CL: 15pF
	100MHz ≤ F0	-	3	-	3	-	3	nSec	
Start Time	-	5	-	5	-	5	mSec	-	
Output Drive Capability (CL)	-	15	-	15	-	15	pF	-	
Tri-State (Input to Pin 1) Enable	1.26	-	1.75	-	2.31	-	V	Or Floating	
Disable	-	0.54	-	0.75	-	0.99	V	Or GND	
Period Jitter (Pk - Pk)	-	40	-	40	-	40	pSec	-	
RMS Phase Jitter	-	1	-	1	-	1	pSec	12kHz ~20MHz	
Standby Current	-	10	-	10	-	10	uA	-	
Aging	-3	3	-3	3	-3	3	ppm	@25°C 1st Year	
Storage Temperature	-55	125	-55	125	-55	125	°C	-	

Frequency Stability Vs. Operation Temperature Range

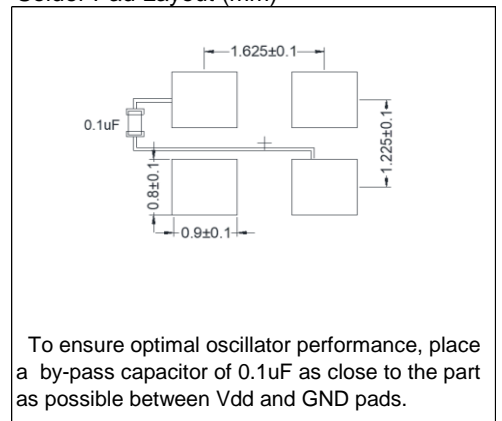
Operation Temp. (°C)	ppm				Remark
	±20	±25	±50	±100	
-10~60	√	√	√	√	Note 1: √:Available, Δ:Conditional, X:Not available Note 2: Freq stability is inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration.
-20~70	√	√	√	√	
-40~85	X	√	√	√	
-40~105	X	Δ	√	√	
-40~125	X	X	Δ	√	

Dimension

Product Dimension (mm)



Solder Pad Layout (mm)



Note: not all combination of options are available. Other specifications may be available upon request.

Specifications subject to change without notice.