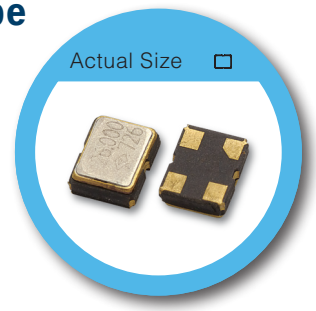
2.5 x 2.0 mm SMD Crystal Oscillator – OY Type



FEATURE

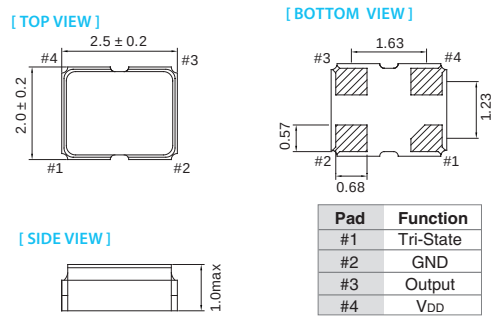
- Typical 2.5x2.0x0.9 mm ceramic SMD package.
- Tight symmetry (45 to 55%) available.
- Operation voltage: 1.8V, 2.5V, 3.3V
- Packing: Tape & Reel, 3000pcs per Reel.

TYPICAL APPLICATION

- WLAN/WiMax,
- Mobile Phone
- DSC,Set-top Box ,HDTV

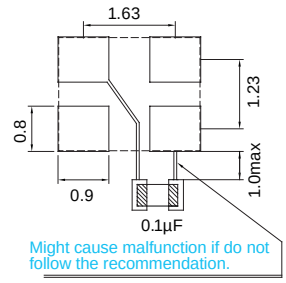
RoHS Compliant Standard

DIMENSION (mm)



Pad	Function
#1	Tri-State
#2	GND
#3	Output
#4	VDD

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3 V		2.5 V		1.8 V		unit
	Min.	Max.	Min.	Max.	Min.	Max.	
Supply Voltage Variation (VDD) 10%	2.97	3.63	2.25	2.75	1.62	1.98	V
Frequency Range	1	50	1	50	1	50	MHz
Standard Frequency	24, 26, 40						
Supply Current	–	15	–	10	–	7	mA
Duty Cycle	45	55	45	55	45	55	%
Output Level (CMOS)							
Output High (Logic "1")	90%VDD	–	90%VDD	–	90%VDD	–	V
Output Low (Logic "0")	–	10%VDD	–	10%VDD	–	10%VDD	
Transition Time:Rise/Fall Time+							
1MHz ≦ Fo < 20MHz	–	3	–	4	–	5	nSec
20MHz ≦ Fo < 50MHz	–	2	–	3	–	4	
Start Time	–	2	–	2	–	2	mSec
Tri-State(Input to Pin 1)							
Enable	0.7 VDD	–	0.7 VDD	–	0.7 VDD	–	V
Disable	–	0.3 VDD	–	0.3 VDD	–	0.3 VDD	
Absolute Clock Period Jitter	–	40	–	40	–	40	pSec
RMS Phase Jitter (Integrated 12KHz ~ 20MHz)	–	1	–	1	–	1	pSec
Standby Current	–	15	–	15	–	15	µA
Aging	–	±3	–	±3	–	±3	ppm
Storage Temp. Range	-55	125	-55	125	-55	125	°C

Standard frequencies are frequencies which the crystal has been designed and does not imply a stock position.
+ Transition times are measured between 10% and 90% of VDD, with an output load of 15pF.

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C) \ ppm	±20	±25	±50
-10 ~ +60	○	○	○
-20 ~ +70	△	○	○
-40 ~ +85	×	△	○

* ○: Available △:Conditional X: Not available
* Inclusive of calibration @ 25 °C, operating temperature range, input voltage variation, load variation, aging (1st year), shock, and vibration