

OY Type

2.5 x 2.0 mm SMD Crystal Oscillator

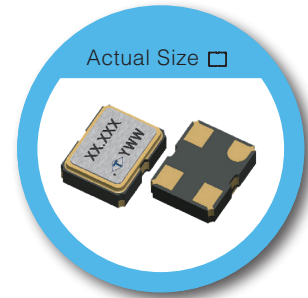
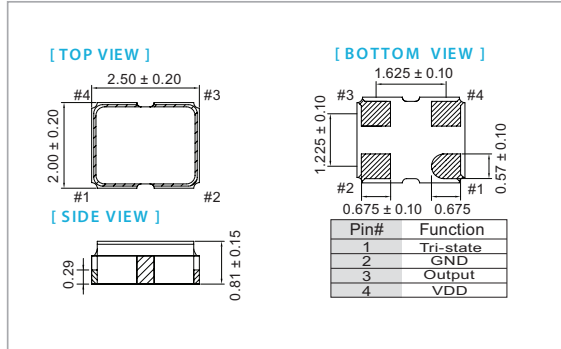
FEATURE

- Conforms to AEC-Q200
- Typical 2.5 x 2.0 x 0.81mm Ceramic SMD Package
- Tight Symmetry (45 to 55%) Available
- Operation Voltage: 1.8V, 2.5V, 3.3V
- Tri-State Enable/Disable

TYPICAL APPLICATION

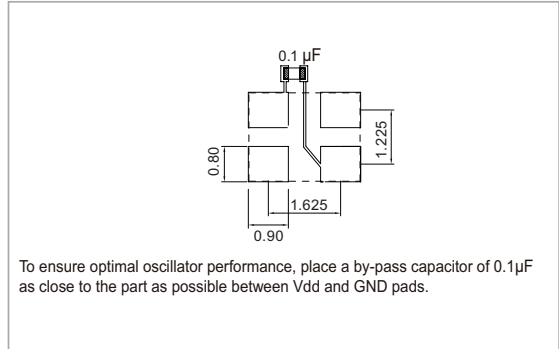
- WLAN/WiMAX
- Mobile Phone
- DSC, Set-Top Box, HDTV

DIMENSION (mm)



RoHS Compliant

SOLDER PAD LAYOUT (mm)



ELECTRICAL SPECIFICATION

Parameter	3.3V		2.5V		1.8V		Unit	
	Min.	Max.	Min.	Max.	Min.	Max.		
Supply Voltage Variation (V _{DD})	V _{DD} -5%	V _{DD} +5%	V _{DD} -5%	V _{DD} +5%	V _{DD} -5%	V _{DD} +5%	V	
Frequency Range	1.25	125	1.25	125	1.25	125	MHz	
Standard Frequency	24, 26, 30, 40						MHz	
Supply Current	At 15pF Load		-	15	-	10	7	mA
	No Load Condition, 1.25MHz ≤ Fo < 10MHz		-	1.5	-	1.5	1.2	mA
	No Load Condition, 10MHz ≤ Fo < 20MHz		-	2	-	2	1.5	mA
	No Load Condition, 20MHz ≤ Fo < 80MHz		-	3	-	2.5	1.5	mA
	No Load Condition, 80MHz ≤ Fo < 125MHz		-	8	-	7	5	mA
Duty Cycle	45	55	45	55	45	55	%	
Output Level	Output High	2.97	-	2.25	-	1.62	-	V
	Output Low	-	0.33	-	0.25	-	0.18	V
Transition Time: Rise / Fall Time ⁺	1.25MHz ≤ Fo < 10MHz	-	3	-	4	-	5	nSec
	10MHz ≤ Fo < 20MHz	-	3	-	3	-	4	nSec
	20MHz ≤ Fo < 80MHz	-	3	-	3	-	4	nSec
	80MHz ≤ Fo < 125MHz	-	3	-	3	-	4	nSec
Startup Time	-	2	-	2	-	2	mSec	
Tri-State (Input to Pin 1)	Enable (High Voltage or Floating)	2.31	-	1.75	-	1.26	-	V
	Disable (Low Voltage or GND)	-	0.99	-	0.75	-	0.54	V
Output Loading	15		15		15		pF	
Stand by Current (@-40°C to 85°C)	-	10	-	10	-	10	µA	
Stand by Current (@-40°C to 125°C)	-	20	-	20	-	20	µA	
Period Jitter (Pk-Pk)	-	40	-	40	-	40	pSec	
RMS Phase Jitter (12kHz to 20MHz)	-	1	-	1	-	1	pSec	
Aging (@ 25°C, 1 st Year)	-	±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 V_{DD} with an output load of 15pF

FREQ. STABILITY vs. TEMP. RANGE

Temp. (°C)	ppm		
	±20	±25	±50
-10~+60	○	○	○
-20~+70	△	○	○
-40~+85	×	○	○
-40~+125	×	×	○

* O: Available △: Conditional X: Not available

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

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

Specifications subject to change without notice.