

OC Type Multiplier Crystal Oscillator

RoHS Compliant Standard

FEATURE

1. Typical 7.5 x 5.0 x 1.65mm ceramic SMD package.
2. Output frequency up to 200MHz.
3. Good shock resistance and reliability.
4. Packing: Tape & Reel, 1000/3000 pcs per Reel, 1~99 pcs per Bulk.



Actual Size

ORDERING INFORMATION

O	C	E	M	D	C	J			-	N	F	-	?
XO	Package (mm)	Supply Voltage (V)	Tri-State Function	Freq. Stability (ppm)	Temp. Range (°C)	Output Logic and Symmetry			Dash	Appearance	Lead Free	Dash	Freq.(MHz)
	7.5x5	E: 3.3	M: Multiplier Frequency with Tri-State	C: ± 20 D: ± 25 G: ± 50 H: ± 100	I: -10~+60 C: -20~+70 L: -40~+85	50±5%	50±10%			N: Normal	F: RoHS Compliant		xx.xxxxxx
						CMOS 15pF	J	K					
						CMOS 50pF	F	G					

Ordering Example: OCEMDCJ-NF-157.000000 MHz

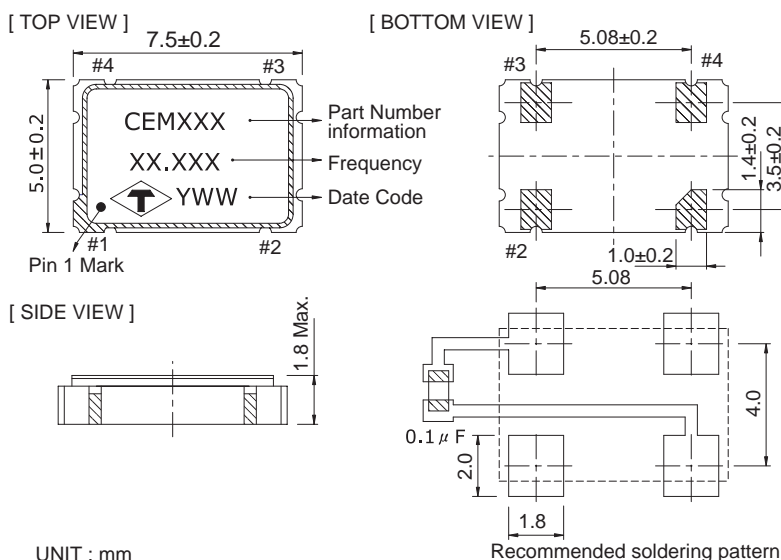
XO C-TYPE V_{DD}: 3.3V; Multiplier-Freq. with Tri-State; Freq. Stability: ±25ppm; Temp Range: -20°C to +70°C; Load: CMOS 15pF, Symmetry: 50±5%. Normal Appearance; RoHS Compliant; Freq. 157.000000MHz.

FREQ. STABILITY vs. TEMP. RANGE

Temp.(°C)	ppm	C: ±20	D: ±25	G: ±50	H: ±100
I -10~+60		○	○	○	○
C -20~+70		△	○	○	○
L -40~+85		X	△	○	○

○: Standard △: Available (case by case) X: Not available

OUTLINE DRAWING



Pin	Function
#1	Tri-State
#2	GND
#3	Output
#4	V _{DD}

ELECTRICAL SPECIFICATION

Parameter	Min.	Max.	Unit
	3.3		V
Supply Voltage Variation(V _{DD}) 10%	2.97	3.63	V
Frequency Range	100	200	MHz
Operating Temp. Range	Refer to Ordering Information		°C
Frequency Stability *	Refer to Ordering Information		ppm
Supply Current			
100MHz Fo < 160MHz	—	40	mA
160MHz Fo < 200MHz	—	50	
Output Level (CMOS)			
Output High (Logic "1")	V _{DD} -0.4	—	V
Output Low (Logic "0")	—	0.4	
Transition Time:Rise/Fall Time*			
100MHz Fo 200MHz	—	5	nSec
Start Time	—	8	mSec
Tri-State (Input to Pin 1)			
Output Active	2	—	V
Output in High Impedance State	—	0.5	
Absolute Clock Period Jitter	—	150	pSec
Storage Temp. Range	-55	125	°C

*Inclusive of calibration @ 25°C, operating temperature range, input voltage variation, load variation, aging, shock, and vibration.

*Transition times are measured between 10% and 90% of V_{DD}, with an output load of 15pF.