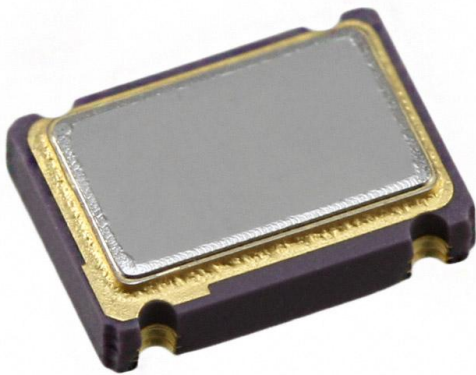


# K50-3C1E20.0000M Datasheet

[www.digi-electronics.com](http://www.digi-electronics.com)



<https://www.DiGi-Electronics.com>

DiGi Electronics Part Number	K50-3C1E20.0000M-DG
Manufacturer	<a href="#">KYOCERA AVX</a>
Manufacturer Product Number	K50-3C1E20.0000M
Description	XTAL OSC XO 20.0000MHZ CMOS SMD
Detailed Description	20 MHz XO (Standard) CMOS Oscillator 3.3V Standby (Power Down) 4-SMD, No Lead

This model K50-3C1E20.0000M is available at DiGi Electronics.

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We welcome your inquiries regarding pricing, lead time, or other product-related questions.

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RFQ Email: [Info@DiGi-Electronics.com](mailto:Info@DiGi-Electronics.com)

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## Purchase and inquiry

Manufacturer Product Number:

K50-3C1E20.0000M

Series:

K50-3C

Base Resonator:

Crystal

Frequency:

20 MHz

Output:

CMOS

Frequency Stability:

-

Operating Temperature:

-10°C ~ 70°C

Ratings:

-

Package / Case:

4-SMD, No Lead

Height - Seated (Max):

0.063" (1.60mm)

Manufacturer:

KYOCERA AVX

Product Status:

Obsolete

Type:

XO (Standard)

Function:

Standby (Power Down)

Voltage - Supply:

3.3V

Absolute Pull Range (APR):

-

Current - Supply (Max):

10mA

Mounting Type:

Surface Mount

Size / Dimension:

0.276" L x 0.197" W (7.00mm x 5.00mm)

Current - Supply (Disable) (Max):

10µA

## Environmental & Export classification

RoHS Status:

ROHS3 Compliant

REACH Status:

REACH Unaffected

HTSUS:

8542.39.0001

Moisture Sensitivity Level (MSL):

1 (Unlimited)

ECCN:

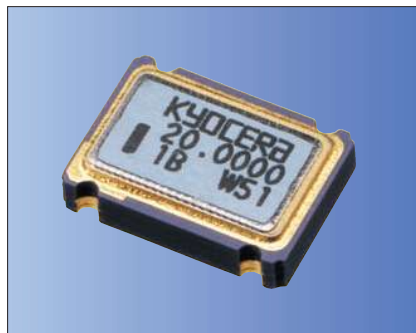
EAR99

# Clock Crystal Oscillators Surface Mount Type K50-3C Series



CMOS/ 3.3V/ 7.0×5.0mm

**This product is NOT recommended for new designs.**



Pb Free

RoHS Conforming

## Features

- Miniature ceramic package
- Highly reliable with seam welding
- CMOS output
- Supply voltage  $V_{DD}=3.3V$
- $\pm 25ppm$  available

## How to Order

K50-3C 0 - S E 25.0000  
① ② ③ ④ ⑤

- ① Type(7×5 SMD, 3.3V)
- ② Frequency Stability Code(See Table1)
- ③ Duty Ratio(S: 45% to 55% STD)
- ④ Enable/Disable Function(STD)
- ⑤ Oscillation Frequency(Ex.: 25.0000MHz)

Packaging(Tape & Reel 1Kpcs/reel)

Table 1

Stability Code	(ppm)	$T_{OPR}$ (°C)	Note
0	$\pm 50$	-10 to +70 (Standard)	Standard specifications
S	$\pm 30$		With only certain frequencies
U	$\pm 25$		With only certain frequencies
F	$\pm 100$	-40 to +85 (Extend)	With only certain frequencies
G	$\pm 50$		With only certain frequencies

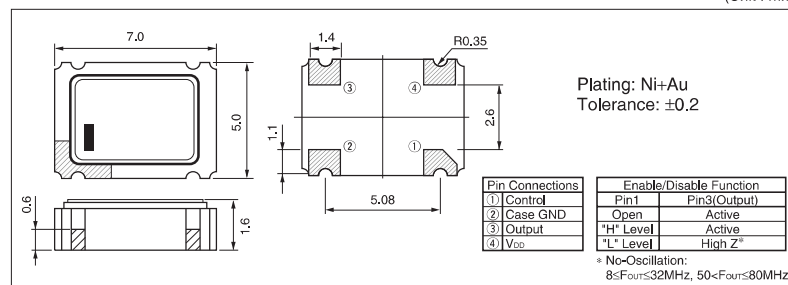
## Specifications

Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	$F_{OUT}$		1.5	80	MHz
Frequency Stability	$F_{SBY}$	Overall conditions: initial tolerance, operating temperature range, rated power supply voltage change, load change, aging(1year @25°C), shock and vibration	-25 -30 -50	+25 +30 +50	ppm
Storage Temperature Range	$T_{STG}$		-55	+125	°C
Operating Temperature Range	$T_{OPR}$	Standard Extend(option)	-10 -40	+70 +85	
Max. Supply Voltage	—		-0.5	7.0	Volt
Supply Voltage	$V_{DD}$	Stability: $\pm 50ppm, \pm 30ppm, \pm 100ppm$ (Ext Temp) Stability: $\pm 25ppm, \pm 50ppm$ (Ext Temp)	2.97 3.14	3.63 3.46	
Current Consumption (Maximum Loaded)	$I_{DD}$	$1.5 \leq F_{OUT} \leq 20MHz$ $20 < F_{OUT} \leq 40MHz$ $40 < F_{OUT} \leq 60MHz$ $60 < F_{OUT} \leq 80MHz$	— — — —	10 15 20 30	mA
Standby/Disable Current	$I_{ST}/I_{DE}$	$8 \leq F_{OUT} \leq 32MHz$ (Standby Function) $32 < F_{OUT} \leq 50MHz$ (Disable Function) $50 < F_{OUT} \leq 80MHz$ (Standby Function)	— — —	10 15 10	$\mu A$ mA $\mu A$
Duty Ratio(Symmetry)	SYM	@ 50% $V_{DD}$	45	55	%
Rise/Fall Time (10% $V_{DD}$ to 90% $V_{DD}$ Maximum Loaded)	$T_r/T_f$	$8 \leq F_{OUT} \leq 26MHz$ $26 < F_{OUT} \leq 45MHz$ $45 < F_{OUT} \leq 80MHz$	— — —	10 8 5	nS
Output Voltage-"L"	$V_{OL}$	$I_{OL} = 8mA$	—	10% $V_{DD}$	Volt
Output Voltage-"H"	$V_{OH}$	$I_{OH} = -8mA$	90% $V_{DD}$	—	
Output Load	CL	CMOS	—	15	pF
Input Voltage Range	$V_{IN}$		0	$V_{DD}$	Volt
Input Voltage-"L"	$V_{IL}$		—	30% $V_{DD}$	
Input Voltage-"H"	$V_{IH}$		70% $V_{DD}$	—	
Output Disable Time	—		—	150	nS
Output Enable Time	—	$8 \leq F_{OUT} \leq 32MHz$ $32 < F_{OUT} \leq 50MHz$ $50 < F_{OUT} \leq 80MHz$	— — —	5 150 5	mS nS mS
Start-up Time	ST	@ Minimum operating Voltage to be 0sec.	—	10	mS

Note: Please contact us for inquires about extended operating temperature range, available frequencies and other conditions.  
All electrical characteristics are defined at the maximum load and operating temperature range.

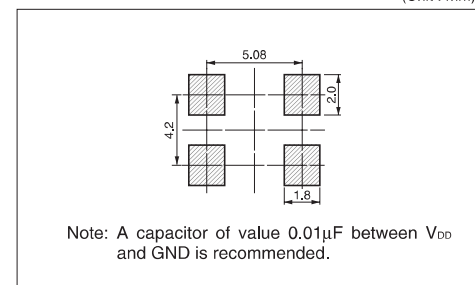
## Dimensions

(Unit : mm)



## Recommended Land Pattern

(Unit : mm)



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