

Clock Oscillators Surface Mount Type

KC2016B-C1 Series



CMOS/ 1.8V, 2.5V, 3.3V Compatible/ 2.0×1.6mm



RoHS Compliant

Features

- Ultra Miniature ceramic package
2.0 (L) × 1.6 (W) × 0.55 (H) mm (Typ.)
- Highly reliable with seam welding
- CMOS output
- Supply voltage V_{CC} =1.8V/ 2.5V/ 3.3V
- Wide operating voltage range 1.6 to 3.63V
- Low current consumption

Table 1

Freq. Tol.		Operating Temperature Range (°C)	Note
Code	$\times 10^{-6}$		
O	± 50	-10 to +70	Standard specifications
S	± 30		With only certain frequencies
U	± 25		
F	± 100		
G	± 50	-40 to +85	

How to Order

KC2016B 40.0000 C 1 0 E 00
① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (2.0×1.6mm SMD)
- ② Output Frequency
- ③ Output Type (CMOS)
- ④ Supply Voltage (1.8V, 2.5V, 3.3V Compatible)
- ⑤ Frequency Tolerance (See Table 1)
- ⑥ Symmetry/ INH Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

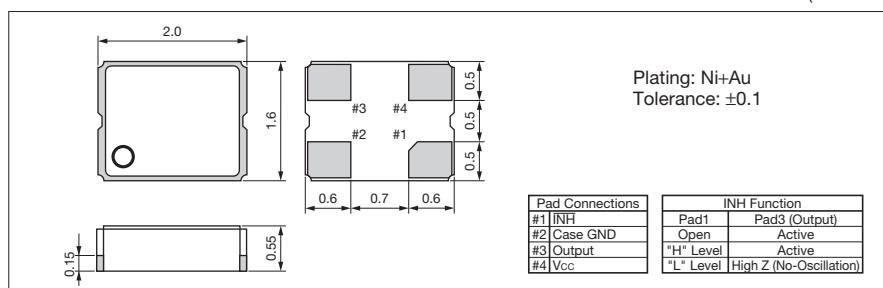
Specifications

Item	Symbol	Conditions		Min.	Max.	Units
Output Frequency Range	f _o			1.5	50	MHz
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	×10 ⁻⁶
			Op. Temp.: -10 to +70°C/ -40 to +85°C	-50	+50	
			Op. Temp.: -10 to +70°C	-30	+30	
			Op. Temp.: -10 to +70°C	-25	+25	
Storage Temperature Range	T _{stg}			-55	+125	°C
Operating Temperature Range	T _{use}	Standard Specifications		-10	+70	°C
		Extend (Option)		-40	+85	
Max. Supply Voltage	—			-0.6	+6.0	V
Supply Voltage	V _{CC}			+1.6	+3.63	V
Current Consumption (Maximum Loaded/ 1.6≤V _{CC} ≤2.0V)	I _{CC}	1.5≤f _o ≤24MHz		—	2.5	mA
		24<f _o ≤40MHz		—	3.5	
		40<f _o ≤50MHz		—	4.5	
1.5≤f _o ≤24MHz			—	3.0		
24<f _o ≤40MHz			—	4.5		
40<f _o ≤50MHz			—	5.0		
1.5≤f _o ≤24MHz			—	3.5		
24<f _o ≤40MHz			—	5.0		
40<f _o ≤50MHz			—	6.0		
Current Consumption (Maximum Loaded/ 2.0<V _{CC} ≤2.8V)						
Current Consumption (Maximum Loaded/ 2.8<V _{CC} ≤3.63V)						
Stand-by Current	I _{std}			—	10	μA
Symmetry	SYM	@50% V _{CC}		45	55	%
Rise/ Fall Time (10% V _{CC} to 90% V _{CC} Maximum Loaded)	t _r / t _f			—	5	ns
Low Level Output Voltage	V _{OL}	I _{OL} =4mA		—	10% V _{CC}	V
High Level Output Voltage	V _{OH}	I _{OH} =-4mA		90% V _{CC}	—	V
CMOS Load	L _{CMOS}	CMOS Output		—	15	pF
Input Voltage Range	V _{IN}			0	V _{CC}	V
Low Level Input Voltage	V _{IL}			—	30% V _{CC}	V
High Level Input Voltage	V _{IH}			70% V _{CC}	—	V
Disable Time	t _{dis}			—	100	ns
Enable Time	t _{ena}			—	5	ms
Start-up Time	t _{str}	@Minimum operating voltage to be 0 sec.		—	10	ms
1 Sigma Jitter	J _{Sigma}	Measured with Wavecrest SIA-3000		—	8	ps
Peak to Peak Jitter	J _{PK-PK}			—	80	ps

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

Dimensions

(Unit: mm)



Recommended Land Pattern

(Unit: mm)

