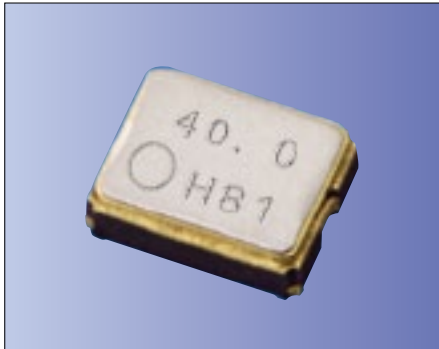


CMOS/ 1.8V, 2.5V, 3.3V Compatible/ 2.0×1.6mm



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<sub>cc</sub>=1.8V/ 2.5V/ 3.3V  
Wide operating voltage range 1.6 to 3.63V
- Low current consumption

Table 1

Freq. Tol. Code	Tol. × 10 <sup>-6</sup>	Operating Temperature Range (°C)	Note
O	± 50	-10 to +70	Standard specifications
S	± 30		
U	± 25		
F	± 100	-40 to +85	With only certain frequencies
G	± 50		

### 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)

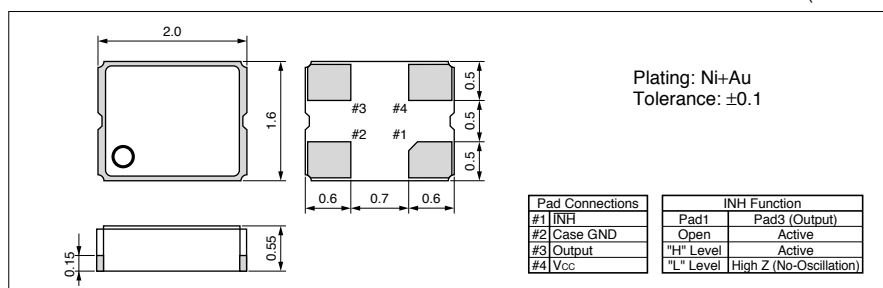
### Specifications

Item	Symbol	Conditions	Min.	Max.	Units	
Output Frequency Range	f <sub>o</sub>		1.5	50	MHz	
Frequency Tolerance	f <sub>tol</sub>	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 <sup>-6</sup>
			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 <sub>stg</sub>		-55	+125	°C	
Operating Temperature Range	T <sub>use</sub>	Standard Specifications	-10	+70	°C	
		Extend (Option)	-40	+85		
Max. Supply Voltage	—		-0.5	+6	V	
Supply Voltage	V <sub>cc</sub>		+1.6	+3.63	V	
Current Consumption (Maximum Loaded/ 1.6≤V <sub>cc</sub> ≤2.0V)	I <sub>cc</sub>	1.5≤f <sub>o</sub> ≤24MHz	—	2.5	mA	
		24<f <sub>o</sub> ≤40MHz	—	3.5		
		40<f <sub>o</sub> ≤50MHz	—	4.5		
Current Consumption (Maximum Loaded/ 2.0<V <sub>cc</sub> ≤2.8V)	1.5≤f <sub>o</sub> ≤24MHz	—	3			
	24<f <sub>o</sub> ≤40MHz	—	4.5			
	40<f <sub>o</sub> ≤50MHz	—	5			
Current Consumption (Maximum Loaded/ 2.8<V <sub>cc</sub> ≤3.63V)	1.5≤f <sub>o</sub> ≤24MHz	—	3.5			
	24<f <sub>o</sub> ≤40MHz	—	5			
	40<f <sub>o</sub> ≤50MHz	—	6			
Stand-by Current	I <sub>std</sub>		—	10	μA	
Symmetry	SYM	@50% V <sub>cc</sub>	45	55	%	
Rise/ Fall Time (10% V <sub>cc</sub> to 90% V <sub>cc</sub> Maximum Loaded)	tr/ tf		—	5	ns	
Low Level Output Voltage	V <sub>OL</sub>	I <sub>oL</sub> =4mA	—	10% V <sub>cc</sub>	V	
High Level Output Voltage	V <sub>OH</sub>	I <sub>oH</sub> =-4mA	90% V <sub>cc</sub>	—	V	
CMOS Load	L <sub>CMOS</sub>	CMOS Output	—	15	pF	
Input Voltage Range	V <sub>IN</sub>		0	V <sub>cc</sub>	V	
Low Level Input Voltage	V <sub>IL</sub>		—	30% V <sub>cc</sub>	V	
High Level Input Voltage	V <sub>IH</sub>		70% V <sub>cc</sub>	—	V	
Disable Time	t <sub>dis</sub>		—	100	ns	
Enable Time	t <sub>ena</sub>		—	5	ms	
Start-up Time	t <sub>str</sub>	@Minimum operating voltage to be 0 sec.	—	10	ms	
1 Sigma Jitter	J <sub>Sigma</sub>	Measured with Wavecrest DTS-2079 VISI 6.3.1	—	8	ps	
Peak to Peak Jitter	J <sub>PK-PK</sub>		—	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)

