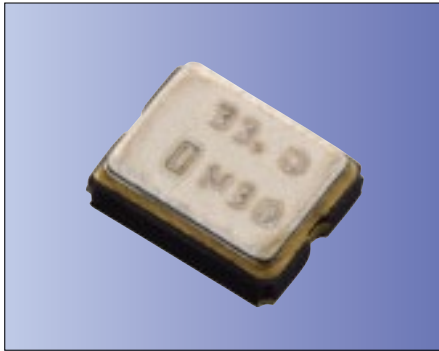


CMOS/ 1.8V, 2.5V, 3.3V Compatible/ 2.5×2.0mm



RoHS Compliant

### Features

- Miniature ceramic package  
2.5 (L) × 2.0 (W) × 0.7 (H) mm (Typ.)
- Highly reliable with seam welding
- CMOS output
- Supply voltage 1.8/ 2.5/ 3.3V  
Wide operating voltage range 1.6 to 3.63V
- Low current consumption
- AEC-Q100 compliant
- \* Please contact us for automotive specifications

### Table 1

Freq. Tol. Code	Tol. × 10 <sup>-6</sup>	Operating Temperature Range (°C)	Note
X	±100	-40 to +125	Standard specifications With only certain frequencies

### How to Order

KC2520M 25.0000 C 1 X E 00  
 ① ② ③ ④ ⑤ ⑥ ⑦

- ① Type (2.5×2.0mm 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)

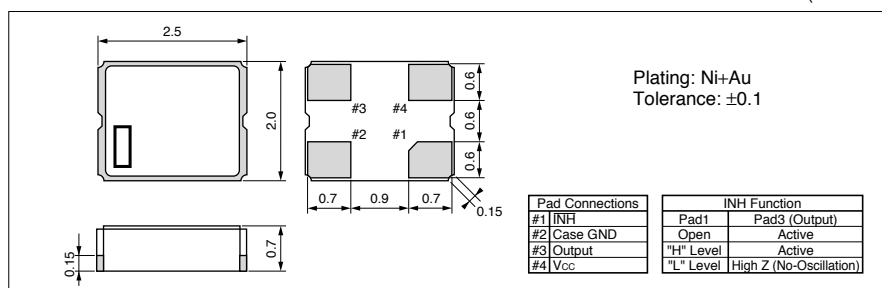
### Specifications

Item	Symbol	Conditions	Specifications		Units
			Min.	Max.	
Output Frequency Range	f <sub>o</sub>		1.5	60	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	-100	+100	×10 <sup>-6</sup>
Storage Temperature Range	T <sub>stg</sub>		-55	+125	°C
Operating Temperature Range	T <sub>use</sub>		-40	+125	°C
Max. Supply Voltage	—	1.5≤f <sub>o</sub> ≤60MHz	-0.5	+6.5	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	
		40<f <sub>o</sub> ≤60MHz	—	4.5	
Current Consumption (Maximum Loaded/ 2.0<V <sub>CC</sub> ≤2.8V)	I <sub>CC</sub>	1.5≤f <sub>o</sub> ≤24MHz	—	3	
		24<f <sub>o</sub> ≤40MHz	—	4.0	
		40<f <sub>o</sub> ≤60MHz	—	5.0	
Current Consumption (Maximum Loaded/ 2.8<V <sub>CC</sub> ≤3.63V)	I <sub>CC</sub>	1.5≤f <sub>o</sub> ≤24MHz	—	3.5	
		24<f <sub>o</sub> ≤40MHz	—	5	
		40<f <sub>o</sub> ≤60MHz	—	6.5	
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	1.6≤V <sub>CC</sub> ≤2.0V	—	6.5	ns
		2.0<V <sub>CC</sub> ≤2.8V	—	5.5	
		2.8<V <sub>CC</sub> ≤3.63V	—	4.5	
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
Output Load	L <sub>CMOS</sub>	CMOS Output	—	15	pF
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 VIS/ 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)

