



Ph Free

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  $V_{CC}$ =1.8V/ 2.5V/ 3.3V  
Compatible Low Power Supply Consumption
- Wide Operating Voltage Range 1.6 to 3.63V

Table 1

Freq. Tol. Code	Freq. Tol. $\times 10^{-6}$	Operating Temperature Range (°C)	Note
0	$\pm 50$	-10 to +70	Standard specifications
S	$\pm 30$		
U	$\pm 25$		
F	$\pm 100$	-40 to +85	With only certain frequencies
G	$\pm 50$		

### How to Order

KC2520B 25.0000 C 1 0 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/ Enable Function (45/ 55%, Stand-by)
- ⑦ Customer Special Model Suffix (STD Specification is "00")

Packaging (Tape & Reel 2000 pcs./ reel)

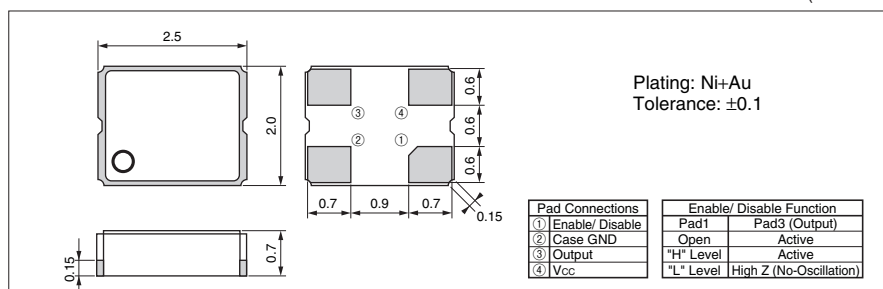
### Specifications

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, Load change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: -40 to +85°C	-100	+100	$\times 10^{-6}$
			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	—		-0.5	+6	V	
Supply Voltage	$V_{CC}$	Freq. Tol.Code: 0, S, U, F, G	1.6	3.63	V	
Current Consumption (Maximum Loaded/ 1.6< $V_{DD}$ <2.0V)	$I_{CC}$	1.5< $f_o$ <24MHz	—	2.5	mA	
		24< $f_o$ <40MHz	—	3.5		
		40< $f_o$ <50MHz	—	4.5		
Current Consumption (Maximum Loaded/ 2.0< $V_{DD}$ <2.8V)	$I_{CC}$	1.5< $f_o$ <24MHz	—	3	mA	
		24< $f_o$ <40MHz	—	4.5		
		40< $f_o$ <50MHz	—	5		
Current Consumption (Maximum Loaded/ 2.8< $V_{DD}$ <3.63V)	$I_{CC}$	1.5< $f_o$ <24MHz	—	3.5	mA	
		24< $f_o$ <40MHz	—	5		
		40< $f_o$ <50MHz	—	6		
Stand-by Current	$I_{std}$		—	10	$\mu$ A	
Symmetry	SYM	@ 50% $V_{CC}$	45	55	%	
		1.6< $V_{DD}$ <2.0V	—	6.5		
		2.0< $V_{DD}$ <2.8V	—	5		
Rise/ Fall Time (10% $V_{CC}$ to 90% $V_{CC}$ Maximum Loaded)	$t_r/ t_f$	2.8< $V_{DD}$ <3.63V	—	4.5	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 operation voltage to be 0 sec.	—	10	mS	

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)

