



High Stability Clock Oscillators Surface Mount Type

KC2520C-C2 Series



CMOS/ 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.)
- High Stability Output Frequency
 $\pm 10 \times 10^{-6}$ (–10 to +70°C)
 $\pm 15 \times 10^{-6}$ (–40 to +85°C)
- CMOS output
- Supply voltage V_{CC} = 2.5V/ 3.3V Compatible
Low Power Supply Consumption
- Wide Operating Voltage Range 2.25 to 3.63V

Applications

- Wi-Fi, Bluetooth® etc.

How to Order

KC2520C 40.0000 C 2 L 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 (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)

Table 1

Freq. Tol.		Operating Temperature Range (°C)	Note
Code	$\times 10^{-6}$		
Y	± 10	–10 to +70	With only certain frequencies
K	± 20	–40 to +85	
L	± 15		Standard specifications

Specifications

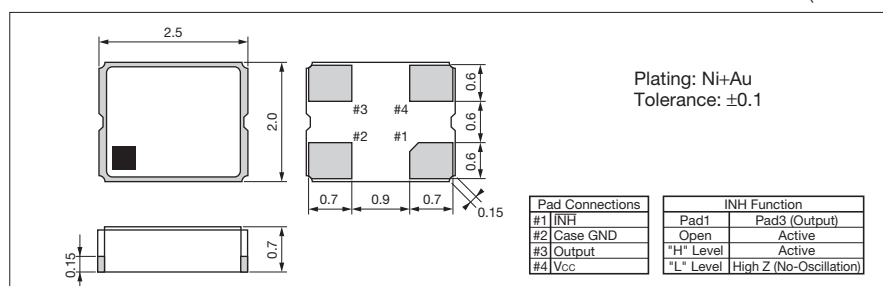
Item	Symbol	Conditions	Min.	Max.	Units
Output Frequency Range	fo		1.5	54	MHz
Frequency Tolerance	f _{tol}	Initial tolerance, Operating temperature range, Rated power supply voltage change, Aging (1 year @25°C), Shock and vibration	Op. Temp.: –40 to +85°C Op. Temp.: –40 to +85°C Op. Temp.: –10 to +70°C	–15 +15 +20 +10	$\times 10^{-6}$
Storage Temperature Range	T _{stg}		–55	+125	°C
Operating Temperature Range	T _{use}		–10 –40	+70 +85	°C
Max. Supply Voltage	—		–0.3	+4.0	V
Supply Voltage	V _{CC}		+2.25	+3.63	V
Current Consumption (Maximum Loaded)	I _{CC}	No-load	1.5 ≤ fo < 24MHz	—	3.0
			24 ≤ fo ≤ 40MHz	—	3.5
			40 ≤ fo ≤ 54MHz	—	4.0
		CL ≤ 15pF	1.5 ≤ fo < 24MHz	—	3.5
			24 ≤ fo ≤ 40MHz	—	5.0
			40 ≤ fo ≤ 54MHz	—	6.0
Stand-by Current	I _{std}		—	5	μA
Symmetry	SYM	@50% V _{CC}	45	55	%
Rise/ Fall Time (10% V _{CC} to 90% V _{CC} Maximum Loaded)	tr/ tf		—	4	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)

