

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.)
- Highly reliable with seam welding
- CMOS output
- Supply voltage 2.5/ 3.3V
Wide operating voltage range 2.25 to 3.63V
- Low current consumption
- High output frequency 160MHz

Table 1

| Freq. Tol. Code | × 10 ⁻⁶ | Operating Temperature Range (°C) | Note |
|-----------------|--------------------|----------------------------------|-------------------------------|
| 0 | ± 50 | -10 to +70 | Standard specifications |
| S | ± 30 | | |
| U | ± 25 | -40 to +85 | With only certain frequencies |
| F | ± 100 | | |
| G | ± 50 | | |
| 6 | ± 50 | -40 to +105 | |

How to Order

KC2520B 25.0000 C 2 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 (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)

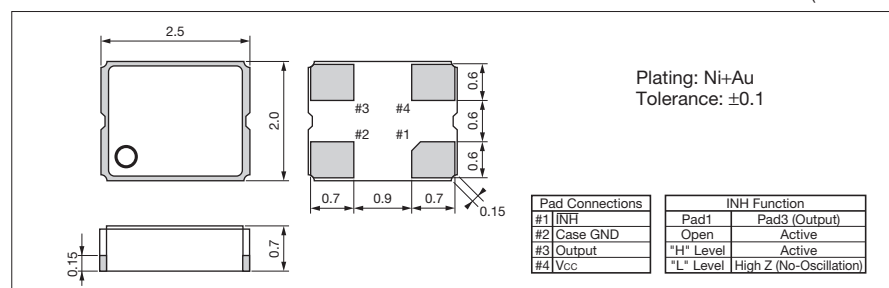
Specifications

| Item | Symbol | Conditions | Specifications | | Units | |
|---|--------------------|--|---|---------------------|-------|-------------------|
| | | | Min. | Max. | | |
| Output Frequency Range | fo | fo>125MHz | 125 | 160 | MHz | |
| Frequency Tolerance | f _{tol} | Over all conditions : initial tolerance, operating temperature range, rated power supply voltage change, load change, aging (1year @25°C), shock and vibration | Op. Temp. : -40 ~ +85°C | -100 | +100 | ×10 ⁻⁶ |
| | | | Op. Temp.: -10 to +70°C/ -40 to +85°C/ -40 to +105°C | -50 | +50 | |
| | | | Op. Temp. : -10 ~ +70°C | -30 | +30 | |
| Storage Temperature Range | T _{stg} | | -55 | +125 | °C | |
| Operating Temperature Range | T _{use} | Standard Specifications | -10 | +70 | °C | |
| | | Extend (Option) | -40 | +105 | | |
| Max. Supply Voltage | — | | -0.3 | +4.0 | V | |
| Supply Voltage | V _{cc} | | +2.25 | +3.63 | V | |
| Current Consumption (Maximum Loaded/ 2.25≤V _{cc} ≤2.75V) | I _{cc} | 125<fo≤160MHz | — | 25 | mA | |
| Current Consumption (Maximum Loaded/ 2.75≤V _{cc} ≤3.63V) | | 125<fo≤160MHz | — | 27 | | |
| 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) | tr/ tf | 125<fo≤160MHz | — | 2.5 | 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} | — | | |
| Output Load | L _{CMOS} | CMOS Output | — | 15 | pF | |
| Low Level Input Voltage | V _{IL} | | — | 30% V _{cc} | V | |
| High Level Input Voltage | V _{IH} | | 70% V _{cc} | — | | |
| 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 | — | 3 | ps | |
| Peak to Peak Jitter | J _{PK-PK} | 125<fo≤160MHz | — | 25 | | |

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)

