



LV-PECL/ 3.3V/ 7.0×5.0mm



RoHS Compliant

**Features**

- Miniature ceramic package
- LV-PECL output
- High frequency to 170MHz
- Low Phase Noise

Table 1

| Freq. Code | Tol. × 10 <sup>-6</sup> | Operating Temperature Range (°C) | Note   |
|------------|-------------------------|----------------------------------|--|
| 0          | ±50                     | -10 to +70                       | Standard specifications                      |
| S          | ±30                     | -10 to +70                       | Please contact us for available frequencies. |
| G          | ±50                     | -40 to +85                       |  |

**How to Order**

**KV7050C 155.520 P 3 □ J 00**  
① ② ③ ④ ⑤ ⑥ ⑦

- ①Series
- ②Output Frequency
- ③Output Type (LV-PECL)
- ④Supply Voltage (3.3V)
- ⑤Frequency Tolerance (See Table 1)
- ⑥Symmetry/ INH Function/ APR (45/ 55%, Disable, APR50)
- ⑦Individual Specification (STD Specification is "00".)

Packaging (Tape & Reel 1000 pcs./ reel)

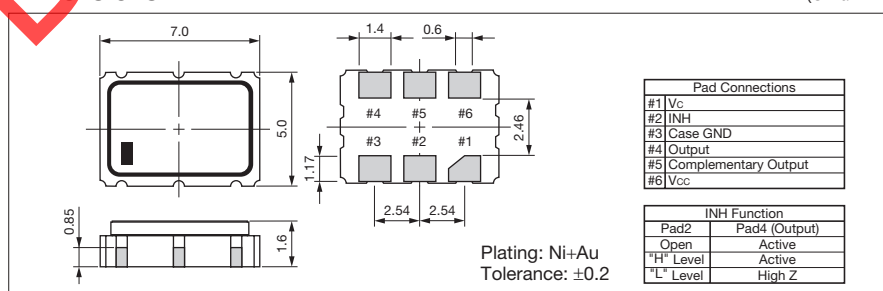
**Specifications**

| Item                                       | Symbol             | Conditions  | Min.                               | Max.                   | Unit               |                    |
|--|--------------------|---|------------------------------------|------------------------|--------------------|--------------------|
| Output Frequency Range <sup>Note1</sup>    | f <sub>o</sub>     |   | 80                                 | 170                    | MHz                |                    |
| Frequency Tolerance <sup>Note2</sup>       | f <sub>tol</sub>   | Initial tolerance, Operating temperature range, Rated power supply voltage change, Load change, Shock and vibration | Temp.: -10 to +70°C / -40 to +85°C | -50                    | +50                | × 10 <sup>-6</sup> |
|  |                    |   | Temp.: -10 to +70°C                | -30                    | +30                |                    |
| Absolute Pull Range                        | APR                | Standard Specifications<br>Extend (Option)  | ±50<br>±100                        | —                      | × 10 <sup>-6</sup> |                    |
| Frequency Aging                            | f <sub>age</sub>   | Per 20years @25°C   | -15                                | +15                    | × 10 <sup>-6</sup> |                    |
| Control Voltage                            | V <sub>c</sub>     |   | 0                                  | +3.3                   | V                  |                    |
| Storage Temperature Range                  | T <sub>stg</sub>   |   | -55                                | +125                   | °C                 |                    |
| Operating Temperature Range                | T <sub>use</sub>   | Standard Specifications   | 0                                  | +70                    | °C                 |                    |
|  |                    | Extend (Option)   | -40                                | +85                    |                    |                    |
| Max. Supply Voltage                        | —                  |   | -0.3                               | +5.0                   | V                  |                    |
| Supply Voltage                             | V <sub>cc</sub>    |   | +2.97                              | +3.63                  | V                  |                    |
| Current Consumption                        | I <sub>cc</sub>    |   | —                                  | 85                     | mA                 |                    |
| Disable Current                            | I <sub>dis</sub>   |   | —                                  | 5                      | mA                 |                    |
| Symmetry                                   | SYM                | 50ohm@crossing point  | 45                                 | 55                     | %                  |                    |
| Rise/ Fall Time (20% to 80% Output Level)  | Tr/ Tf             | 50ohm   | —                                  | 0.7                    | ns                 |                    |
| Low Level Output Voltage <sup>Note3</sup>  | V <sub>OL</sub>    |   | —                                  | V <sub>cc</sub> -1.620 | V                  |                    |
| High Level Output Voltage <sup>Note3</sup> | V <sub>OH</sub>    |   | V <sub>cc</sub> -1.025             | —                      | V                  |                    |
| Output Load                                | —                  | LV-PECL Output  | —                                  | 50                     | ohm                |                    |
| Input Voltage Range                        | V <sub>IN</sub>    |   | 0                                  | +3.3                   | V                  |                    |
| Low Level Input Voltage <sup>Note3</sup>   | V <sub>IL</sub>    |   | —                                  | 30% V <sub>cc</sub>    | V                  |                    |
| High Level Input Voltage <sup>Note3</sup>  | V <sub>IH</sub>    |   | 70% V <sub>cc</sub>                | —                      | V                  |                    |
| Input Resistance                           | —                  |   | 10                                 | —                      | Mohm               |                    |
| Disable Time                               | t <sub>dis</sub>   |   | —                                  | 200                    | ns                 |                    |
| Enable Time                                | t <sub>ena</sub>   |   | —                                  | 2                      | ms                 |                    |
| Start-up Time                              | t <sub>str</sub>   | @Minimum operating voltage to be 0 sec.   | —                                  | 10                     | ms                 |                    |
| Phase Jitter                               | J <sub>Phase</sub> | @122.88MHz  | BW : 12kHz to 20MHz                | —                      | 0.3                | ps                 |
|  |                    |   | @10Hz offset                       | Typ. -71               |                    |                    |
| Phase Noise                                | —                  | @122.88MHz  | @100Hz offset                      | Typ. -102              | dBc/ Hz            |                    |
|  |                    |   | @1kHz offset                       | Typ. -128              |                    |                    |
|  |                    |   | @10kHz offset                      | Typ. -146              |                    |                    |
|  |                    |   | @100kHz offset                     | Typ. -152              |                    |                    |
|  |                    |   | @1MHz offset                       | Typ. -156              |                    |                    |
|  |                    |   | @10MHz offset                      | Typ. -157              |                    |                    |

Note : All electrical characteristics are defined at the maximum load and operating temperature range.  
Note1: Please contact us for inquiry about operating temperature range, available frequencies and other conditions.  
Note2: Please contact us for the Frequency tolerance of -40 to +85°C.  
Note3: DC characteristic

**Dimensions**

(Unit: mm)



**Recommended Land Pattern**

(Unit: mm)

