

### Features

- ☒ Frequency range : 1MHz to 170MHz
- ☒ SMD seam sealing ceramic package
- ☒ Supply voltage : 1.8V ~ 3.3V
- ☒ CMOS output
- ☒ Tri-state function available
- ☒ External dimensions (mm)  
L : 5.0 x W : 3.2 x H : 1.2
- ☒ RoHS compliant & Pb free

### Applications

- ☒ Networking, Server, Storage
- ☒ Wireless communications
- ☒ Fibre channel, Ethernet, SATA, SAS, PCI-E, USB, WLAN, xDSL, xPON
- ☒ PC mainboard, Notebook, HDD, SSD, Graphics card, Computer peripherals
- ☒ Audio, Video, Gaming, Printer, DSC, IP CAM, Consumer products

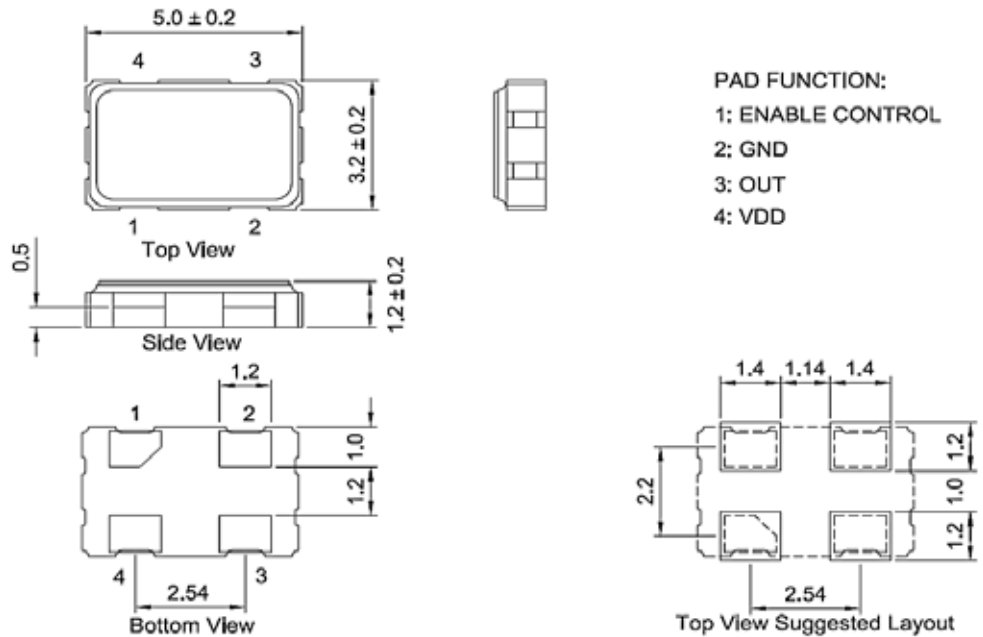
### Electrical Characteristics

| Item                                      | 7C                                            | Conditions                    |
|-------------------------------------------|-----------------------------------------------|-------------------------------|
| Frequency Range ( $F_0$ )                 | 1MHz ~ 170MHz                                 |                               |
| Frequency Stability ( $F_{stab}$ )        | $\pm 50$ , $\pm 25$ ppm                       | -10°C ~ +70°C; Note [1]       |
|                                           | $\pm 50$ , $\pm 30$ , $\pm 25$ , $\pm 15$ ppm | -40°C ~ +85°C; Note [1]       |
| Operating Temperature Range ( $T_{OTR}$ ) | -10°C ~ +70°C                                 |                               |
|                                           | -40°C ~ +85°C                                 |                               |
| Supply Voltage ( $V_{DD}$ )               | 1.8V, 2.5V, 2.8V, 3.3V                        | $V_{DD} \pm 10\%$             |
| Current Consumption ( $I_{DD}$ )          | 10 mA Max.                                    | 1MHz ~ 75MHz                  |
|                                           | 20 mA Max.                                    | 75MHz ~ 170MHz                |
| Output Type                               | CMOS                                          |                               |
| Output Load ( $C_L$ )                     | 15 pF                                         |                               |
| Output Voltage High ( $V_{OH}$ )          | 90% $V_{DD}$ Min.                             |                               |
| Output Voltage Low ( $V_{OL}$ )           | 10% $V_{DD}$ Max.                             |                               |
| Rise & Fall Time ( $T_r$ / $T_f$ )        | 8 ns Max.                                     | 10% ~ 90% of $V_{DD}$         |
| Duty Cycle                                | 40% ~ 60%                                     |                               |
| Start-up Time                             | 5 ms Max.                                     |                               |
| Enable Voltage High, Logic "1"            | 70% $V_{DD}$ Min.                             | Input to Pin1<br>Note [2]     |
| Enable Voltage Low, Logic "0"             | 30% $V_{DD}$ Max.                             |                               |
| Phase Jitter, RMS                         | 1 ps Max.                                     | Note [3]                      |
| Aging ( $F_{aging}$ )                     | $\pm 3$ ppm Max.                              | at 25°C $\pm$ 3°C, first year |
| Storage Temperature Range ( $T_{STR}$ )   | -55°C ~ +125°C                                |                               |

#### Notes:

- [1] Inclusive of frequency tolerance at 25°C, 1st year aging at 25°C, and variations over operating temperature, supply voltage, and load.
- [2] Output will be enabled if Pin1 is Logic "1" or open; Output will be disabled if Pin1 is Logic "0".
- [3] Freq. 10MHz~40MHz, integrated 12kHz~5MHz; Freq. >40MHz, integrated 12kHz~20MHz.

## Dimensions



(Unit: mm)

## Ordering Information

B ± 50 ppm (-10°C ~ +85°C)  
C ± 100 ppm (-10°C ~ +70°C)  
F ± 100 ppm (-40°C ~ +85°C)

**7C - 30.000M B E - T**

### Frequency in Hz

Please contact us for available frequencies

### Packaging Method

T Tape & Reel

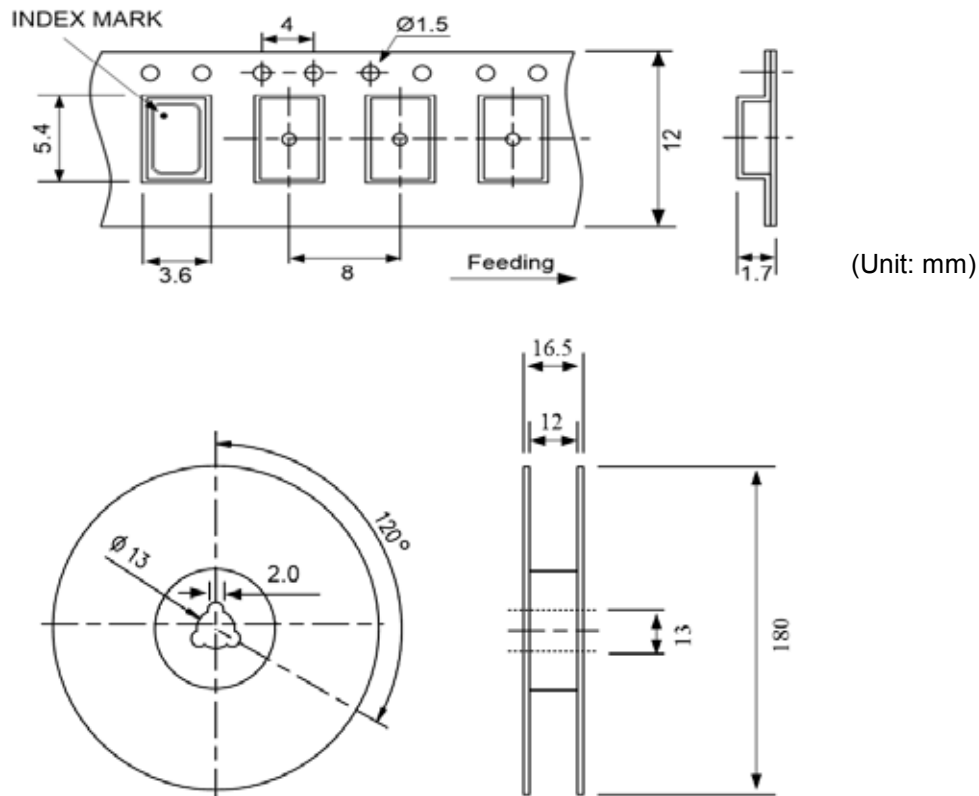
### Supply Voltage

B 3.3 V  
E 2.8 V  
C 2.5 V  
D 1.8 V

### Frequency Stability

A ± 25 ppm (-10°C ~ +70°C)  
D ± 25 ppm (-40°C ~ +85°C)  
E ± 50 ppm (-40°C ~ +85°C)

### Packing



### Reflow Profile

Solder melting point :  $220^\circ\text{C} \pm 10^\circ\text{C}$ , 60 sec. Min.

Peak temperature :  $260^\circ\text{C} \pm 10^\circ\text{C}$ , 10 sec. Min.

