

Dip type LVDS output  
12.8 x 12.8 x 5.5 mm



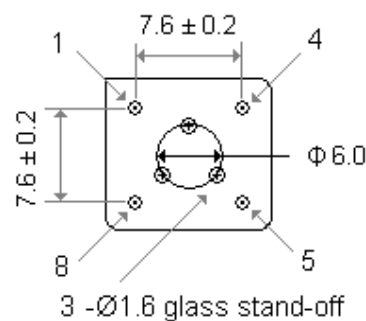
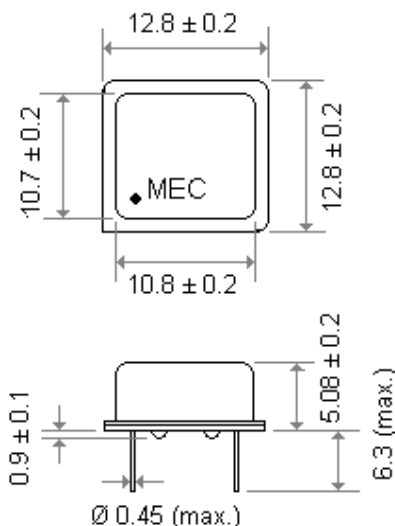
Applications

- HDK femto second integrated phase jitter ( 200 fs typical , 12 KHz to 20 MHz ) .
- HDK superior phase noise ( -138 dBc/Hz at 10 KHz and -144 dBc/Hz at 100 KHz offset ) .
- 2.5 V or 3.3 V supply voltage .

General Specifications

| Parameters                                  |  | Electrical Spec.                           |          |           |   |        |        |       |        |
|---|--|--|----------|-----------|---|--------|--------|-------|--------|
| Input Voltage ( V <sub>DD</sub> )           |  | 2.5 V ± 5 %                                |          |           |   |        |        |       |        |
| Frequency Range / Load                      |  | 13.5 MHz ~ 200,0 MHz                       |          |           |   |        |        |       |        |
| Output Wave Form                            |  | LVDS output                                |          |           |   |        |        |       |        |
| Output Logic High " 1 "                     | typical  | 1.43 V ( RL = 100 Ω )                      |          |           |   |        |        |       |        |
|   | max.   | 1.60 V ( RL = 100 Ω )                      |          |           |   |        |        |       |        |
| Output Logic Low " 0 "                      | min.   | 0.9 V ( RL = 100 Ω )                       |          |           |   |        |        |       |        |
|   | typical  | 1.1 V ( RL = 100 Ω )                       |          |           |   |        |        |       |        |
| Integrated Phase Noise ( 12 KHz to 20 MHz ) |  | 0.2 ps ( typical ) ; 0.5 ps ( max. )       |          |           |   |        |        |       |        |
| Rise Time ( Tr ) / Fall Time ( Tf )         |  | 0.3n sec.( typical ) ; 0.5 n sec. ( max. ) |          |           |   |        |        |       |        |
| Output Voltage Swing                        |  | 250 mV min. ( V <sub>DD</sub> = +2.5V )    |          |           |   |        |        |       |        |
| Duty Cycle                                  |  | 50% ± 10% [ 50% ± 5% is also available ]   |          |           |   |        |        |       |        |
| Load  |  | 50 Ω into Vcc - 2V or Thevenin equivalent  |          |           |   |        |        |       |        |
| Current Consumption ( 15 pF load )          |  | 30 mA ( typical ) , 50 mA ( max. )         |          |           |   |        |        |       |        |
| Start - Up Time (Ts)                        |  | 10 m sec.( typical )                       |          |           |   |        |        |       |        |
| Storage Temperature                         |  | - 50°C to 100°C                            |          |           |   |        |        |       |        |
| Aging                                       |  | ± 3 ppm per year (max.)                    |          |           |   |        |        |       |        |
| Frequency Stability <sup>(1)</sup> Codes    | Frequency Stability over Operating Temperature Range | ± 25 ppm                                   | ± 50 ppm | ± 100 ppm | If non-standard , please enter the desired stability after the " C " or " I " |        |        |       |        |
|   | Commercial ( -10°C to +70°C )                        | A  | B        | C         | For example :   |        |        |       |        |
|   | Industrial ( -40°C to +85°C )                        | D  | E        | F         | " C20 " ±20 ppm over -10°C to +70°C ;<br>" I20 " ± 20 ppm over -40°C to +85°C |        |        |       |        |
| Phase Noise ( typical ) [ 156.250 MHz ]     |  | Offset                                     | 10 Hz    | 100 Hz    | 1K Hz   | 10 KHz | 100KHz | 1 MHz | 10 MHz |
|   |  | dBc / Hz                                   | -75      | -90       | -120  | -135   | -142   | -147  | -155   |

Outline Dimensions ( Unit : mm )



Pin Connections :  
 Pin 1 : Complimentary output  
 Pin 4 : Ground  
 Pin 5 : Output  
 Pin 8 : Supply voltage