

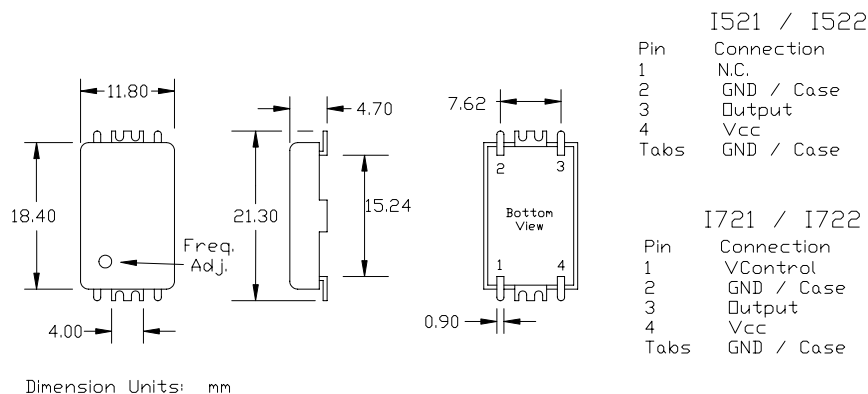


Surface Mount Oscillator, TCXO, TCVCXO  
Metal Package, 11 mm x 18 mm

I521 / I522 / I721 / I722 Series \*

|                               | I522 / I722                                                                                         | I521 / I721              |
|-------------------------------|-----------------------------------------------------------------------------------------------------|--------------------------|
| Frequency                     | 1.000 MHz to 40.000 MHz                                                                             | 10.000 MHz to 40.000 MHz |
| Output Level                  | HC-MOS / TTL                                                                                        | Clipped Sine             |
| Level                         | '0' = 0.1 Vcc Max., '1' = 0.9 Vcc Min.                                                              | 1.0 V p-p Min.           |
| Duty Cycle                    | 50% ± 10%                                                                                           |                          |
| Rise / Fall Time              | 10 nS Max.                                                                                          |                          |
| Output Load                   | 15 pF, Fo < 50 MHz = 10 TTL, Fo > 50 MHz = 5 LSTTL                                                  | 20K Ohms / 10 pF         |
| Frequency Stability           | See Frequency Stability Table                                                                       |                          |
| Frequency Stability at +25° C | ± 1 ppm (I521 and I522)                                                                             |                          |
| Aging                         | ± 1 ppm / Year Max.                                                                                 |                          |
| Supply Voltage                | See Supply Voltage Table, tolerance ±5 %                                                            |                          |
| Current                       | 50 mA Max. **                                                                                       | 3 mA Max.                |
| Control Voltage (I721 / I722) | 1.65 VDC ± 1.5 VDC, ±5 ppm Min. for Vcc = 3.3 VDC, 2.5 VDC ± 2.0 VDC, ±5 ppm Min. for Vcc = 5.0 VDC |                          |
| Slope                         | Positive                                                                                            |                          |
| Temperature                   |                                                                                                     |                          |
| Operating                     | See Operating Temperature Table                                                                     |                          |
| Storage                       | -40° C to +85° C                                                                                    |                          |
| Environmental                 | See Appendix B for information                                                                      |                          |
| Package Information           | MSL = 2a, Termination = e1                                                                          |                          |

\* I522 = HC-MOS TCXO, I521 = Clipped Sine TCXO, I722 = HC-MOS TCVCXO, I721 = Clipped Sine TCVCXO



| Part Number Guide                    |                       | Sample Part Number: I521 - 1Q3 - 20.000 |                |              |
|--------------------------------------|-----------------------|-----------------------------------------|----------------|--------------|
| Package and Output                   | Operating Temperature | Frequency Stability vs. Temperature     | Supply Voltage | Frequency    |
| I521 -<br>I522 -<br>I721 -<br>I722 - | 7 = 0° C to +50° C    | *O = ±1.5 ppm                           | 5 = 5.0 VDC    | - 20.000 MHz |
|                                      | 1 = 0° C to +70° C    | *P = ±2.0 ppm                           | 3 = 3.3 VDC    |              |
|                                      | 3 = -20° C to +70° C  | Q = ±2.5 ppm                            |                |              |
|                                      | 2 = -40° C to +85° C  | R = ±3.0 ppm                            |                |              |
|                                      |                       | J = ±5.0 ppm                            |                |              |

NOTE: A 0.01 µF bypass capacitor is recommended between Vcc (pin 4) and Gnd (pin 2) to minimize power supply noise.

\* Not available for all temperature ranges. \*\* Frequency, supply, and load related parameters.