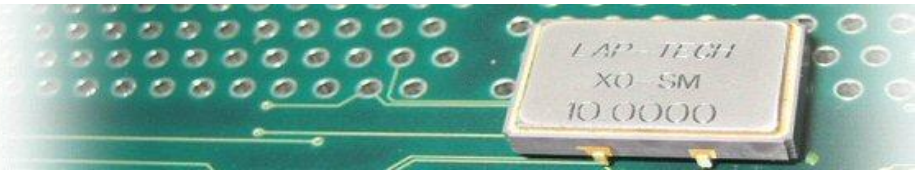




**LAP-TECH INC.**

"Focused on Frequency"



**STANDARD FREQUENCY COMPONENTS**

**LEADED**

**STA & STC**

**TCXO & TCVCXO**

**Description**

**TCXO, TCVCXO : STA, STC**

Temperature Compensated Oscillator

Temperature Compensated Voltage Controlled Oscillator

10.000 MHz ~ 155.520 MHz frequency range

RoHS Compliant

**Features**

Positive supply voltage 3.3 V & 5V

PECL, LVDS compatible

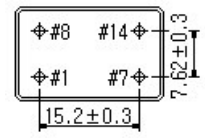
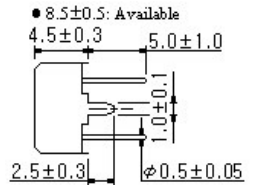
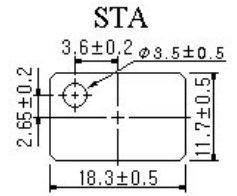
Wide frequency range

Fundamental crystals

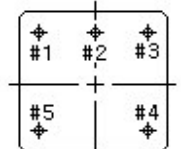
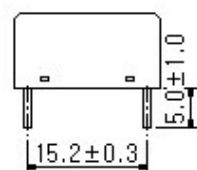
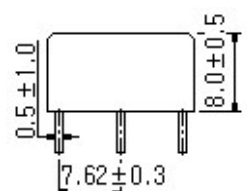
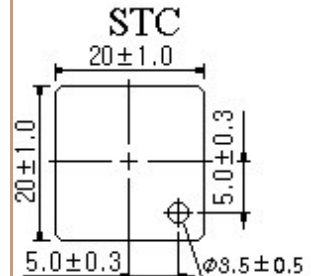
Exceptional Jitter performance

**Electrical Specifications**

|                                     |                                                                                                          |
|-------------------------------------|----------------------------------------------------------------------------------------------------------|
| <b>Type:</b>                        | TCXO & TCVCXO                                                                                            |
| <b>Frequency Range:</b>             | 10.000 MHz ~ 155.520 MHz                                                                                 |
| <b>Duty Cycle:</b>                  | 50 ± 10 %                                                                                                |
| <b>Internal Trim ( Top of Can):</b> | ± 3 ppm Min.                                                                                             |
| <b>Frequency Deviation:</b>         | ± 5 ppm or ± 10 ppm Min. Over Control Voltage                                                            |
| <b>Control Voltage External:</b>    | 2.5 VDC ± 2.0 VDC (VDD: 5 VDC)<br>1.65 VDC ± 1.0 VDC (VDD: 3.3 VDC)<br>Positive Transfer Characteristics |
| <b>Aging at 25 °C:</b>              | ± 1 ppm / Year Max.                                                                                      |

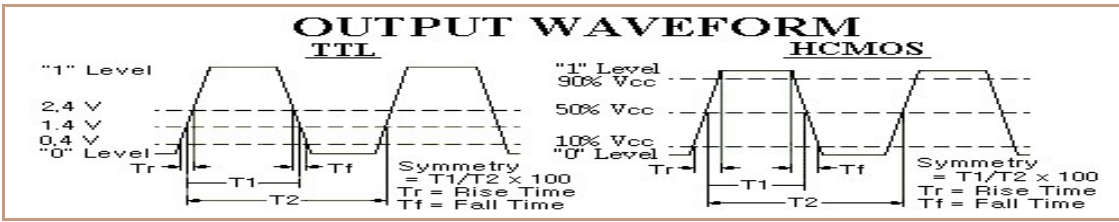


**CONNECTION**  
#1 V.C or N.C #7 GND  
#8 OUTPUT #14 VDD



**CONNECTION**  
#1 VDD #2 OUTPUT  
#3 V.C or GND  
#4 GND #5 GND

| Output                          | Parameters                           |               | Characteristics              |               |
|---------------------------------|--------------------------------------|---------------|------------------------------|---------------|
|                                 | TTL/ HCMOS                           |               | CLIPPED SINEWAVE             |               |
| Frequency Range                 | 1.200 MHz ~ 100.000 MHz              |               | 9.600 MHz ~ 35.000 MHz       |               |
| Load Drive Capability           | 10 TTL Load or 15 pF HCMOS Load Max. |               | 10 k W / 10 pF               |               |
| Output Voltage Logic High (VOH) | w/ TTL: 2.4 VDC Min.                 |               | 1.0 Vp-p Min. (VDD: 5.0 VDC) |               |
|                                 | w/ HCMOS: 90 % of VDD Min.           |               | 1.0 Vp-p Min. (VDD: 5.0 VDC) |               |
| Output Voltage Logic Low (VOL)  | w/ TTL: 2.4 VDC Min                  |               | 1.0 Vp-p Min. (VDD: 5.0 VDC) |               |
|                                 | w/ HCMOS: 90 % of VDD Min.           |               | 1.0 Vp-p Min. (VDD: 5.0 VDC) |               |
| Frequency Stability             | vs. Operating Temperature Range      |               | ± 1.5 ppm ~ 5.0 ppm Max.     |               |
|                                 | vs. Input Voltage (± 5 %)            |               | ± 0.3 ppm Max.               |               |
|                                 | vs. Load (± 10 %)                    |               | ± 0.3 ppm Max.               |               |
| Supply Voltage (VDD)            | 5.0 VDC ± 5 %                        | 3.3 VDC ± 5 % | 5.0 VDC ± 5 %                | 3.3 VDC ± 5 % |
|                                 | Input Current                        |               |                              |               |
| 20 mA Max. 15 mA Max.           | 1.200 MHz ~ 27.000 MHz               |               | 9.600 MHz ~ 27.000 MHz       |               |
|                                 | 27.001 MHz ~ 100.000 MHz             |               | 27.001 MHz ~ 35.000 MHz      |               |
|                                 | 35 mA Max. 30 mA Max.                |               | 3 mA Max. 1.5 mA Max.        |               |
| Rise / Fall Time                | 5 n sec Max                          |               | 4 n sec Max.                 |               |



**STA, STB TCXO & TCVCXO**  
**10.000 MHz ~ 155.520 MHz**