

## Low Cost Temperature Compensated Crystal Oscillator Crystal Oscillator

Microwave Dynamics' Crystal Oscillators provide stability of +/- 3 ppm at frequency of 100 MHz. Parts are available at low cost and fast delivery.

Built to the same high standards as our Dielectric Resonator Oscillators, these TCXOs provide an excellent reference input complementing our DRO line.

These units feature high stability, fast warm-up, low power requirements, rugged military type housings and fast delivery.



### General Specifications:

|                                      |                          |
|--------------------------------------|--------------------------|
| Output Frequency Range               | 100 MHz (90-110 MHz)     |
| Output Level                         | + 3 dBm (+10 dBm option) |
| Output Waveform                      | Sine-wave                |
| Phase Noise                          | -155 dBc/Hz @ 10KHz      |
| Harmonic Distortion                  | <-15 dbc                 |
| Load                                 | 50 ohms                  |
| Input Supply Voltage                 | +12VDC <100 mA           |
| Frequency Adjustment<br>(Mechanical) | +/- 3 ppm                |

### Dual or triple output is available (optional)

|                       |                 |
|-----------------------|-----------------|
| Storage Temperature   | -55°C to + 85°C |
| Operating Temperature | 0°C to + 50°C   |

| Stability (ppm) | Temp Range (°C) |
|-----------------|-----------------|
| +/- 3 ppm       | 0°C to + 50°C   |
| +/- 1.5 ppm     | +15°C to + 50°C |
| +/- 8 ppm       | -10°C to + 65°C |

### Frequency Stability as a Function of

|               |   |
|---------------|---|
| Temperature   | < ± 3 ppm over 0° C<br>+ 50°C ambient                         |
| Input Voltage | < ± 3x10 <sup>-8</sup> for a ± 10 %<br>change in input supply |
| Load          | < ± 1x10 <sup>-8</sup> for a ± 10 %<br>change in load         |
| Time Domain   | Short-term 1 Second<br><3x10 <sup>-11</sup>                   |
| Aging         | < ± 1x10 <sup>-6</sup> / year                                 |

### Orientation

