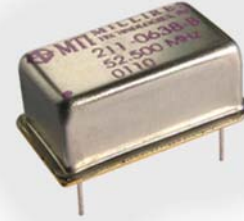


**AS9100 / ISO9001 Certified**

**Ultra Compact**

The 211 Series is one of the highest performance and most ultra compact Oven Controlled Crystal Oscillators (OCXO) in the industry. The 211 Series performs to STRATUM III and IIIe standards and is ideal for applications requiring fast warm-up and low power consumption. The low part count combined with a hermetically sealed package makes this part one of the most reliable in its class. The 211 Series has been specifically designed for your high volume applications.



## Key Features

- Compact size, approximately 4.6 grams
- Low power consumption
- Fast warm-up, 3 minutes to 1.0E-07
- Low part count
- Hermetically sealed package
- Thermal stability to 2.0E-08 over -40°C to +85°C
- Wide Frequency Range
- Low phase noise, -120dBc/Hz at 10Hz

## Applications

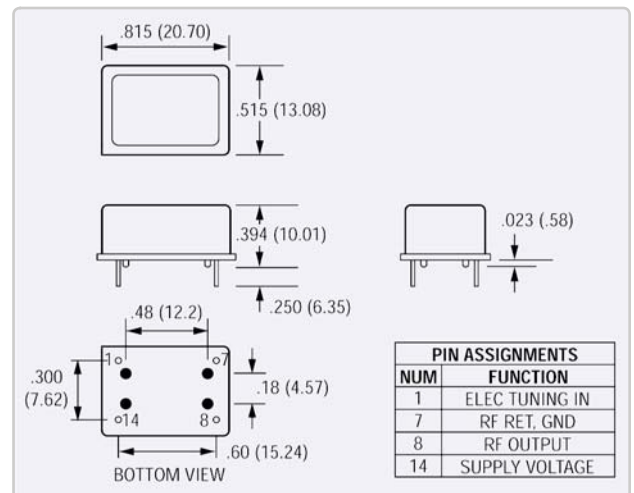
- Base Stations
- Telecommunications
- Instrumentation
- Battery powered applications
- Test Equipment

## Typical Performance

| Parameter                  | 10 MHz       | 100 MHz      | 200 MHz      |
|----------------------------|--------------|--------------|--------------|
| Temperature Range          | -30 to +70°C | -40 to +85°C | -30 to +70°C |
| Thermal Stability          | 2.0E-08      | 5.0E-08      | 5.0E-08      |
| Phase Noise (at 1Hz)       | -90dBc/Hz    | -70dBc/Hz    | -60dBc/Hz    |
| Phase Noise (at 100kHz)    | -155dBc/Hz   | -172dBc/Hz   | -172dBc/Hz   |
| Short Term Stability (1s)  | 2.0E-11      | 1.0E-10      | 2.0E-10      |
| Short Term Stability (10s) | 5.0E-11      | 5.0E-10      | 1.0E-09      |
| Aging (per year)           | 5.0E-08      | 3.0E-07      | 4.0E-07      |
| Warm-up Power              | 1.8W         | 2.8W         | 2.2W         |
| Continuous Power (25°C)    | 0.6W         | 1.0W         | 0.8W         |

\*RoHS compliant available

## Interface Control Drawing

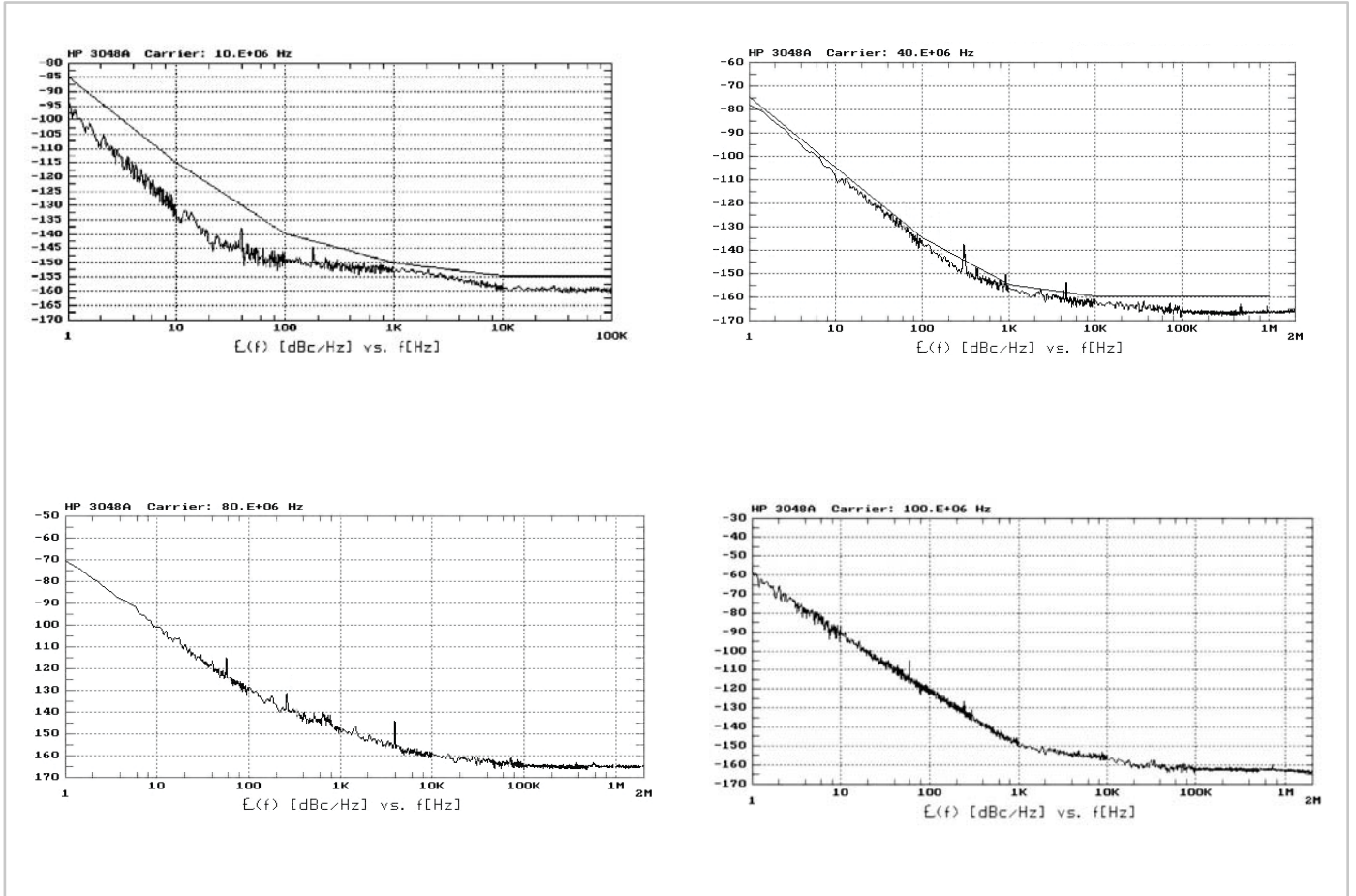


## Performance Range

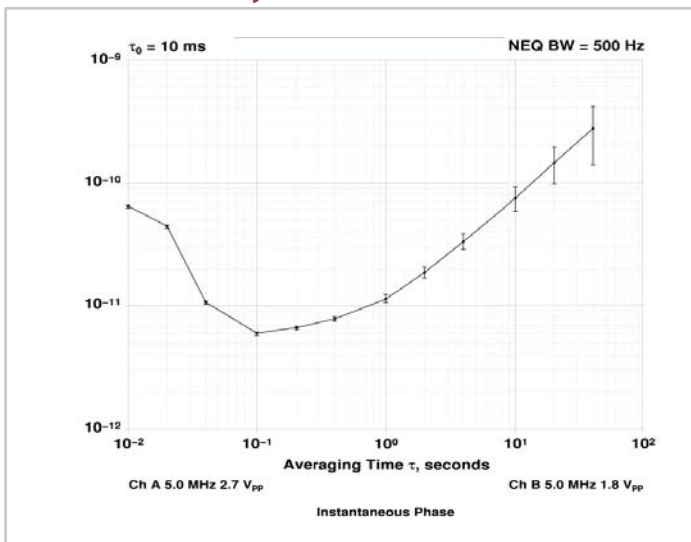
| Parameter                  | Available Range      |
|----------------------------|----------------------|
| Frequency                  | 5MHz to 200MHz       |
| Thermal Stability          | 2.0E-08 to 5.0E-07   |
| Operating Temperature      | -55 to +95°C         |
| Aging (per year)           | 5.0E-08 to 4.0E-07   |
| Supply Voltage             | 3.3V to 15V          |
| Supply Voltage Sensitivity | 5.0E-09              |
| Output                     | Sine(0 to +13dBm)    |
| Harmonics                  | Down to -40dBc       |
| Warm-up Time (25°C)        | 1 minute             |
| Warm-up Power              | 1.5W to 4.5W         |
| Continuous Power (25°C)    | 0.5W to 0.8W         |
| Tuning Range               | ±2.0E-06 to ±5.0E-06 |
| Tuning Voltage             | Within 0 to +10V     |

\*Parameters can be modified to meet specific requirements

## Phase Noise



## Allan Deviation $\sigma_y(\tau)$



## Thermal Stability

