

## 559 Series Hi-Rel Dual Output Space Clock

MTI's 559 Series Hi-Rel Space Clock features hermetic case and small size with RAD hardness and rugged high grms capability. The 559 Series is designed to operate in typical aerospace high acceleration and vibration environments up to 40grms, 20Hz to 2KHz. Available options include internal precision temperature sensor, thermistor temperature sensor, dual LVPECL outputs with frequency division to 1/8, internal frequency multiplier to 5x and high signal level sine output.

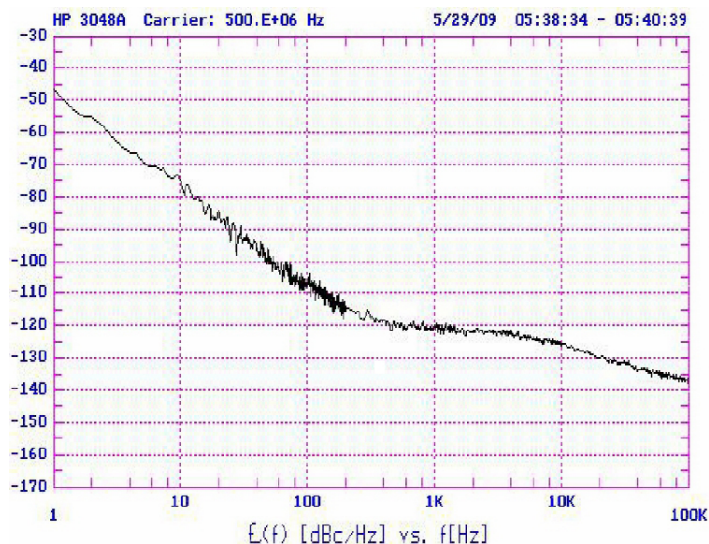
### Features

- Dual frequency outputs, 500MHz and 125MHz
- Supply voltage 3.0 to 3.6V, 195mA Max
- Dual differential PECL outputs
- Low jitter, 3.5PS @ 500MHz
- Optional sleep mode low power function
- Optional sine output @ up to +14dBm
- Optional precision temperature sensor (Current)
- Optional precision thermistor sensor
- Rad Hardness to 50Krad Si
- Vibration endurance to 40grms, 20Hz to 2KHz
- Screening to MIL-PRF-55310 Class S

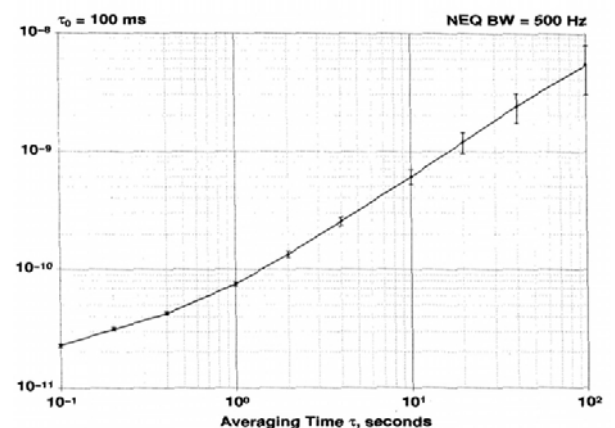


### Phase Noise and Short-Term Stability

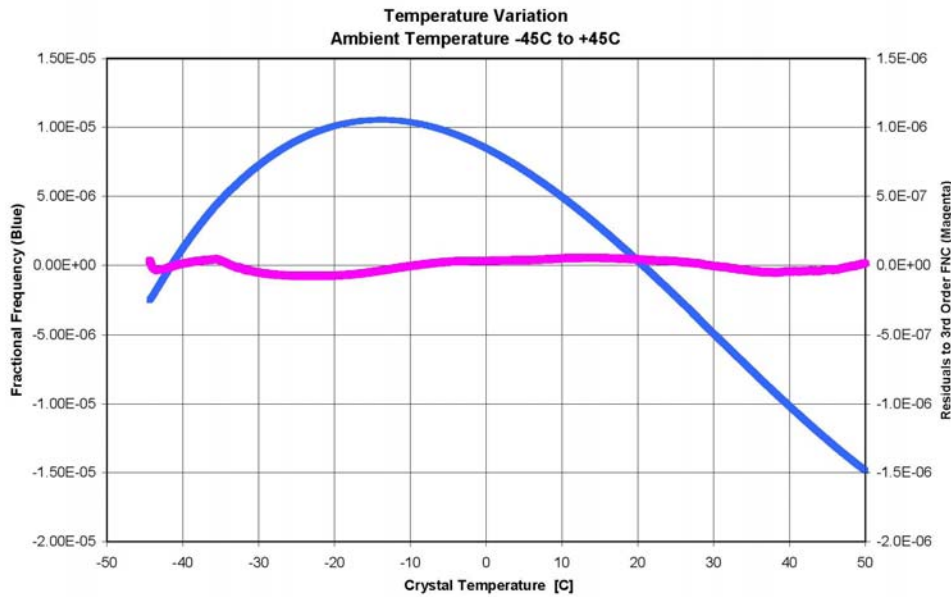
Single Sideband Phase Noise @500MHz



Allan Deviation  $\sigma_y(\tau)$



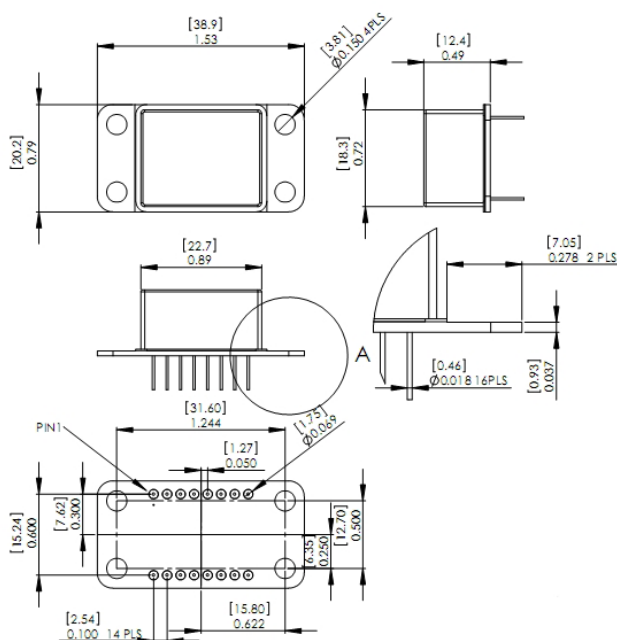
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### Applications

- Beacon Frequency Ref
- DDS clocks
- Hi-Perf uP clocks
- Master Reference
- ADC-DAC clocks

### 559 Series Flange Mount Interface Drawing



### 559 Series PCB Pin Mount Interface Drawing

