

Typical Applications

SONET/SDH Transmission Systems

Features

Low Profile, Compact Package
 Stratum 3E Stability
 SC-Cut Crystal



Nominal Frequency:

12.800 MHZ, 20.000 MHZ

Initial Accuracy (Time of Shipment) :

± 1.5 ppm @ Time of Shipment

Frequency stabilities

| Parameter | Value | Condition |
|---------------------------------|-------------|---------------------------|
| vs. operating temperature range | ± 10 ppb | See Ordering Information. |
| vs. supply voltage | < ± 2 ppb | 1% change in voltage |
| vs. short-term | 1e-11/sec | Allan Variance 1 sec Tau |
| vs. holdover / Day | < ± 1 ppb | <±3°C change in 24hrs |
| vs. aging / 20 Years | < ± 2.0 ppm | |

RF output

| Parameter | Value | Condition |
|----------------|---------|------------------|
| Waveform | HCMOS | |
| Load | 15 pF | |
| Duty Cycle | 40/60% | @50% level |
| Rise/Fall Time | <10nSec | 10% to 90% level |

Supply Voltage

| Parameter | Value | Condition |
|----------------------------------|---------------------------|--------------|
| Supply voltage (Vs) | See Ordering Information. | |
| Power consumption steady state | < 1 watts | @ 25°C |
| Power consumption during warm up | < 3 watts | (See Note 2) |

Additional Parameters

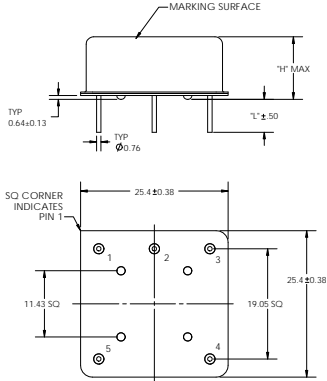
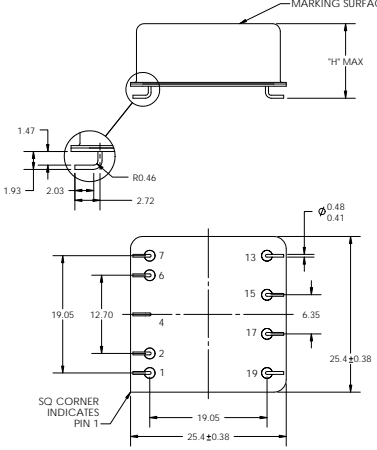
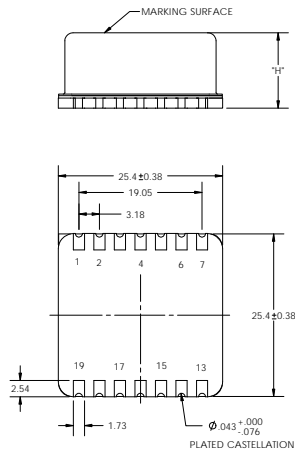
| Parameter | Value | Condition |
|--------------|--------------|--|
| Phase Noise | <-130 dBc/Hz | 100Hz |
| | <-145 dBc/Hz | 1KHz |
| | <-150 dBc/Hz | 10KHz |
| | <-150 dBc/Hz | 100KHz |
| Warm-up time | < 3min | @25°C to final frequency (1 Hour) within ± 0.1ppm |

Notes

- 1 Unless otherwise stated all values are valid after warm-up time and refer to typical conditions for supply voltage, frequency control voltage, load, temperature (25°C)
- 2 For -40 to +85C temperature ranges, 3.3 watts of power is required.

Enclosures (See ordering Information)

| Type A | | | Type B | | | Type C | | |
|-----------------|------------|----------------|--------|------------|----------------|--------|------------|----------------|
| Package Codes: | | | | | | | | |
| Code | Height "H" | Pin Length "L" | Code | Height "H" | Pin Length "L" | Code | Height "H" | Pin Length "L" |
| A1 | 11.25 | 6.35 | B1 | 12.70 | NA | C1 | 15.24 | NA |
| A2 | 13.40 | 6.35 | B2 | 15.24 | NA | C2 | 13.00 | NA |
| A3 ⁵ | 10.00 | 6.35 | B3 | 11.30 | NA | C3 | 11.70 | NA |

| | | |
|---|--|---|
|  <p style="text-align: center;">Dimensions: mm</p> |  <p style="text-align: center;">Dimensions: mm</p> |  <p style="text-align: center;">Dimensions: mm</p> |
| Pin Connections | Pin Connections | Pin Connections |
| 1 RF Output 2 Ground (Case) 3 NC 4 NC 5 Supply Voltage Input (Vs) | 1 RF Output 2 N/C* 4 Ground (Case) 6 N/C 7 N/C 13 NC 15 N/C 17 N/C 19 Supply Voltage Input (Vs) | 1 RF Output 2 N/C 4 Ground (Case) 6 N/C 7 N/C 13 NC 15 N/C 17 N/C 19 Supply Voltage Input (Vs) |

Note: Contact factory for additional options.