

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

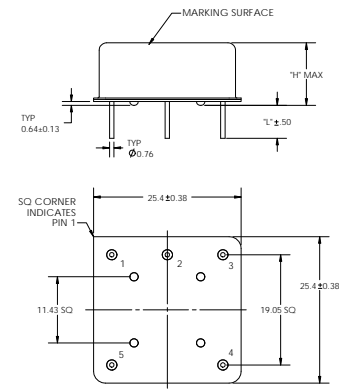
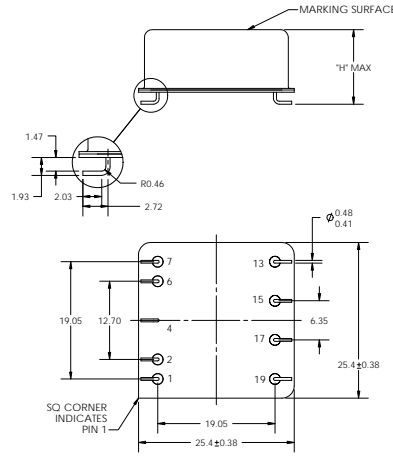
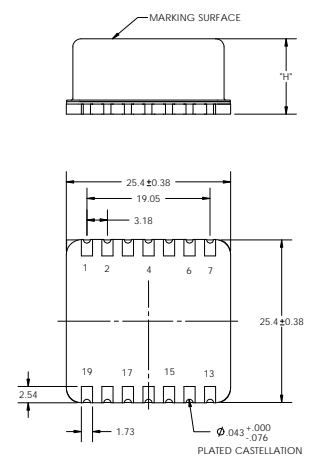
Parameter	Value	Condition
Phase Noise	<-130 dBc/Hz	100Hz
	<-145 dBc/Hz	1KHz
	<-150 dBc/Hz	10KHz
	<-150 dBc/Hz	100KHz
Warm-up time	< 3min	@25°C to final frequency (1 Hour) within ± 0.1ppm

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>Dimensions: mm</p>	 <p>Dimensions: mm</p>	 <p>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.