

Typical Applications

*PCS Base Stations
Cellular Base Stations
Digital Switching
Synthesizers
Test Equipment*

Features

*High Stability
Economical
Low Aging
AT-Cut Crystal*

Frequency range

2 MHz – 18 MHz

Standard frequencies

10 MHz

Frequency stabilities

Parameter	Frequency stability	Operating temp range
vs. operating temperature range	± 40 ppb	0....50°C
	± 20 ppb	
	± 50 ppb	0.....70°C
	± 30 ppb	
	± 100 ppb	-20....+70°C
	± 50 ppb	
	± 100 ppb	-40....+70°C
	± 70 ppb	
Parameter	Value	Condition
vs. aging /daily ¹	$< \pm 2$ ppb	after 48 hours of operation
vs. aging /1 Year	$< \pm 1$ ppm	10 MHz
	$< \pm 0.5$ ppm	> 10 MHz

Frequency tuning

Parameter	Value	Condition
Electrical frequency control (EFC):	± 4 ppm Typ	Sufficient for >15 yrs.
Voltage range	1 V to 5 V	
Pulling slope	Positive	
Optional Control:	Electrical or Electrical + Mechanical	

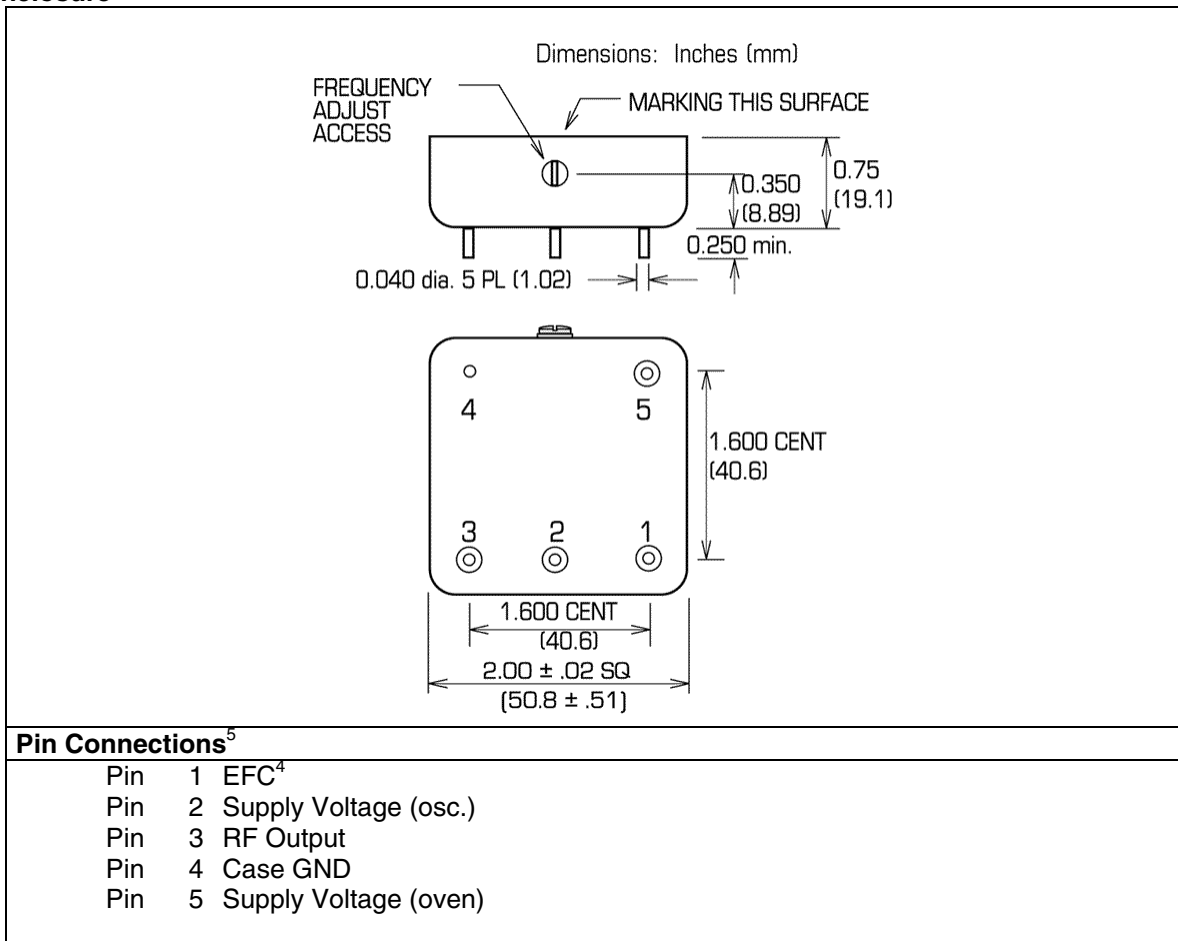
RF output

Parameter	Value	Condition
Signal	Sinewave/ HCMOS ³	
Load	50Ω	
Output level	+5 dBm min.	
Harmonics	- 30 dBc	

Supply Voltage

Parameter	Value	Condition
Supply voltage ² (Vs)	5 V	$\pm 5\%$
Supply voltage B (Vs B)	12 V	$\pm 5\%$
Supply voltage C (Vs C)	15 V	$\pm 5\%$
Power consumption steady state	2.0 W	@ 25°C
Power consumption during warm up	8.0 W	

Enclosure



Additional Parameters

Parameter	Value	Condition
Phase Noise ¹	<- 80 dBc	1Hz Note 1
	<-110 dBc	10Hz
	<-135 dBc	100Hz
	<-150 dBc	1kHz
	<-150 dBc	10kHz
	5 min.	To within ±0.1ppm @25°C
Warm up time		
Processing	Tech_Note_1	
Packaging	Tech_Note_2	

Notes

- ¹ Typical values @ 10 MHz
 - ² Oscillator and oven supply same voltage
 - ³ HCMOS can drive TTL, ACMOS and CMOS
 - ⁴ When Mechanical Trim option (M) is chosen, Pin 1 will be "no connection"
 - ⁵ Oven monitor alarm available
- 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)