

Typical Applications

PCS Base Stations
Cellular Base Stations
Wireless Communications
Wired Communications
Test Equipment

Features

Surface Mount Package
Reflow Process Compatible
High Stability
AT-Cut Crystal



Frequency range

4.8 MHz – 40 MHz

Standard frequencies

10 MHz

Frequency stabilities

Parameter	Code I	Frequency stability	Operating temp range
vs. operating temperature range	B48	± 40 ppb	0....50°C
	B38	± 30 ppb	
	C78	± 70 ppb	0.....70°C
	C58	± 50 ppb	
	D27	± 200 ppb	-20....+70°C
	D17	± 100 ppb	
	F37	± 300 ppb	-40....+85°C
	F27	± 200 ppb	
Parameter		Value	Condition
vs. aging /daily ²		< ± 2 ppb	after 72 hours of operation
vs. aging /1 Year		< ± 0.5 ppm	

Frequency tuning

Parameter	Value	Condition
Electrical frequency control (EFC):	$> \pm 8$ ppm Typ	Sufficient for 15 yrs.
Voltage range	0 V to 4 V	
Pulling slope	Positive	

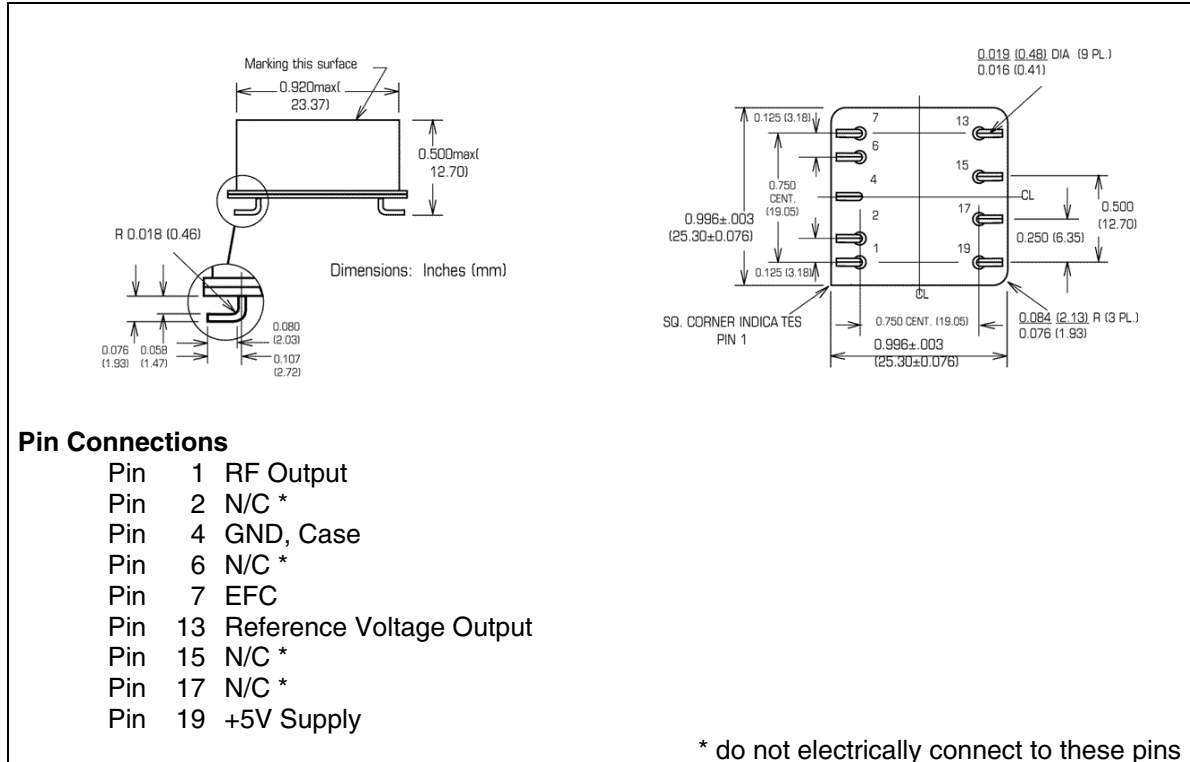
RF output

Parameter	Value	Condition
Signal	Sinewave/ HCMOS	
Load	50Ω	
Duty cycle	45 to 55 %	
Output power min	+3 dB/Veff/dBm	
Output power max	+8 dB/Veff/dBm	
Harmonics	< -30 dBc	

Supply Voltage

Parameter	Value	Condition
Supply voltage (Vs)	5 V $\pm$ 5 %	@ 25°C Temp Range F
Supply voltage B (Vs B)	12 V	
Supply voltage C (Vs C)	3.3 V	
Current/power consumption steady state	< 1.0 mA/W	
Curr./power consumption during warm up	< 2.5 mA/W	
Curr./power consumption during warm up	< 3.0 mA/W	
Reference Voltage output	4 V	

Enclosure



Additional Parameters

Parameter	Value	Condition
Phase Noise	<- 75 dBc <-100 dBc <-130 dBc <-140dBc <-150dBc	1Hz 10Hz 100Hz 1kHz 10kHz Note 2
Reflow Warm-up time	Compatible with convection, IR and combination < 3min	@25°C to final frequency within ± 0.1ppm
Weight Processing Packaging	< 12 g Tech_Note_1 Tech_Note_2	

Notes

- 1 can drive TTL, ACMOS and CMOS
- 2 Typical values @ 10 MHz
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)