

**APPLICATIONS**

PCS Base Stations  
Cellular Base Stations  
Digital Switching  
Synthesizers  
Test Equipment

**FEATURES**

High Stability  
Economical  
Low Aging  
SC-Cut Crystal

Model	Output	Supply Voltage <sup>2</sup> ±5%	Temperature Range with Stability		Frequency Control	Frequency	
			(°C)	Good			Best
4858S	5 (dBm Sine)	5 (5 Volts)	B (0 to +50)	69 (±6 x 10 <sup>-9</sup> )	49 (±4 x 10 <sup>-9</sup> )	E (Electrical)	2 – 18 MHz
	H (HCMOS) <sup>3</sup>	12 (12 Volts)	C (0 to +70)	89 (±8 x 10 <sup>-9</sup> )	69 (±6 x 10 <sup>-9</sup> )	M (Mechanical)	
		15 (15 Volts)	D (-20 to +70)	99 (±9 x 10 <sup>-9</sup> )	79 (±7 x 10 <sup>-9</sup> )	B (Elect. & Mech.)	
			E (-40 to +70)	28 (±2 x 10 <sup>-8</sup> )	18 (±1 x 10 <sup>-8</sup> )		

**ADDITIONAL PARAMETERS**

Yearly Aging: ± 0.075 ppm 10MHz  
± 0.1 ppm > 10MHz  
Daily Aging<sup>1</sup>: <±1 x 10<sup>-9</sup> after 48 hrs.  
Supply Voltage Options: See Chart  
Power Consumption: 2.0 W @ 25°C steady state  
Warm-up Power: 8 W  
Warm-up Time: To within ± 0.01 ppm of final frequency in 5 min. @ 25°C

**Electrical Freq. Control**

Deviation: ± 0.5 ppm Typ., (sufficient for >15 yrs.)  
Voltage Range: 1 to 5 V  
Slope: Positive

**SINEWAVE OPTIONS**

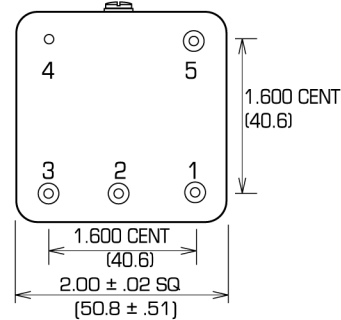
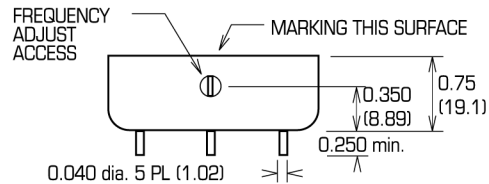
Harmonics -30 dBc  
Load 50 ohms  
Output Level +5 dBm min.

**PHASE NOISE<sup>1</sup>**

1 Hz Offset - 80 dBc/Hz  
10 - 110  
100 - 140  
1K - 150  
10K - 150

<sup>1</sup> Typical Values at 10.0 MHz. <sup>2</sup> Oscillator and oven supply same voltage.  
<sup>3</sup> HCMOS can drive TTL, ACMOS and CMOS.  
<sup>4</sup> When Mechanical Trim option (M) is chosen, Pin 1 will be "no connection."  
<sup>5</sup> Oven monitor alarm available.

**2 – 18 MHz**



**PIN CONNECTIONS<sup>5</sup>**

- 1 – EFC<sup>4</sup>
- 2 – Supply Voltage (osc)
- 3 – RF Output
- 4 – Case GND
- 5 – Supply Voltage (oven)