



## Specification

OCXO Specification	Sym	Condition	Value			Unit	Note
			Min.	Typ.	Max.		
Nominal Frequency	$f_0$		88.052500			MHz	
<b>RF Output</b>							
Output waveform			Sine wave				
Level	L		+10			dBm	+
Load	$R_L$		45	50	55	Ohm	
Harmonics level					-30	dBc	
Spurious level					-80	dBc	
<b>Power Supply</b>							
supply Voltage	Vcc		11.4	12.0	12.6	V	
Warm-up current		Vcc = 12.0V	220		300	mA	
Continuous current		@ +25°C, Vcc = 12.0V			120	mA	
Warm-up time	$t_{up}$	To $\Delta f/f=1e-7$ , @+25°C			180	sec.	
<b>Frequency Control*</b>							
Input resistance	$R_{in}$			11		kOhm	
Voltage range	Vc		0		4.2	V	
Factory set control voltage	Vc0	Disconnected Vc pin	1.65	2.1	2.55	V	
Slope			Positive				
Frequency range	$(f_L-f)/f$	Vc=0V			-1.0	ppm	+
	$(f-f)/f$	Vc=Vc0		0		ppm	
	$(f_H-f)/f$	Vc=V <sub>REF</sub>	1.0			ppm	+
Reference output	VREF		4.1	4.2	4.3	V	
Out resistance of V <sub>REF</sub>				91		Ohm	
<b>Frequency Stability</b>							
Initial Tolerance	$(f-f_0)/f_0$	@+25°C, Vc=Vc0	-0.2		+0.2	ppm	+
Vs. Temperature		0°C to +50°C (ref +25°C)			+/-200	ppb	+
		-20°C to +70°C (ref +25°C)			+/-500	ppb	+
Vs. Supply Voltage		ref Vcc typ.			+/-5	ppb	
Vs. Load		ref R <sub>L</sub> typ.			+/-5	ppb	
Aging	Per day	After 30days operation			+/-3	ppb	
	Per year				+/-0.3	ppm	
<b>Phase Noise</b>							
SSB Phase Noise		100Hz			-131	dBc/Hz	
		1kHz			-157		
		10kHz			-172		
		100kHz			-175		
<b>Environmental</b>							
Power voltage	-0.5V to 14.4V						
Control voltage	-1.0V to 6.0V						
Operating temperature range	-20°C to +70°C						
Storage temperature range	-60°C to +90°C						
Humidity	Hermetically sealed						
Mechanical Shock	Per MIL-STD-202, 30G, 11ms						
Vibration	Per MIL-STD-202, 5G to 500Hz						
Soldering conditions	Hand solder only – not reflow compatible 260°C 10s (on pins)						
Washing conditions	Washing with water or alcohol based detergent allowed only with final enough drying stage						