





Specifications

RUBIDIUM REFERENCE OSCILLATORS			
Type / Specifications		P400/01	CH1-1014
Electrical Specifications			
Output/Frequency/Waveform:		10 MHz sine wave	
Output Level:		1±0.2 V rms nominal into 50Ω	
Output Impedance:		50Ω nominal @ 10 MHz	
Phase Noise (SSB), £(f), dBc/Hz:	SB Freq		
	100 Hz	-120 dBc/Hz	
	1 kHz	-135 dBc/Hz	
	10 kHz	-140 dBc/Hz	
	100 kHz	-145 dBc/Hz	
Spectral Purity:	Harmonics:	<-30 dBc	
	Non-Harmonics:	<-80 dBc	
Aging:	Monthly (after 1 month):	<4E-11/month	<2E-11
Frequency Accuracy At Shipment:		2E-11(@ +25°C)	
Frequency Retrace:		<2E-11	
Short Term Stability:	τ =1 sec	<3E-11	<1.4E-11
	τ =10 sec	<1E-11	<5E-12
	τ =100 sec	<3E-12	<3E-12
Disciplined Rb (to 1pps from GLONASS/GPS Reciver)		NO	YES
Frequency Control:	Analog Freq. Adj. Range	±3E-9	±2E-9
	Digital Freq. Adj. Range/Resolution	-	±2E-9/1E-12
Warm up at 25°C:			
Time to Lock:		<10 min	<15 min
Time to 1E-9:		<15 min	<20 min
Max. Input (Watts) @ 27V		<30 Watts	<30 Watts
Steady-State (Watts) @ 27V		<14 Watts	<18 Watts
Input Voltage Range:		+22 to 32 Vdc, protected against reverse polarity and transients	
Voltage Sensitivity:		1.0E-11 (10% voltage change from nom. 27 Vdc)	
Analog Monitors: (0-5 Vdc)		Lock Light VCXO Control Voltage	
RS-232 Control/Monitor Interface:		NO	YES

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Type of Rubidium Oscillator / Specifications	P400/01	CH1-1014
Environmental Specifications		
Operating Temperature:	-40°C ambient to +65°C baseplate	
Temperature Sensitivity:	<3E-10 over op. temp. range	
Storage Temperature:	-60°C to +85°C	
Thermal Shock:		
(Non-operating)	3 cycles -40°C to +70°C	
Orientation Sensitivity:	<2E-11 for any orientation	
Pressure Sensitivity:	<1E-13/mbar	
Altitude: Operating	Sea level to 40,000 ft.	
Magnetic Field Sensitivity:	Non-operating Sea level to vacuum <2E-11/GAUSS	
Relative Humidity: (Operating)	0 to 95%	
Shock: Non-operating	100g	
Life:	10 years	
Physical Specifications		
Weight:	<0.7 kg. maximum	<1.2 kg. maximum
Size:	102 x 76 x 51.5 mm	157 x 87 x 78 mm
Warranty:	2 years	
Extended Warranty:	Consult factory	