

MtronPTI XO9085 Rackmount Integrated Frequency References

Combining over 25 years of discrete RF design expertise and SC-cut crystal manufacturing experience, MtronPTI's XO9085 series provides designers a *High Stability and Ultra Low Phase Noise references* in standard 19" rack mount configurations. Frequencies upto with 6GHz are available, with an option for multiple frequencies and multiple outputs are provided as well as phase locking with external reference.



Applications: Test Labs, Instrumentation

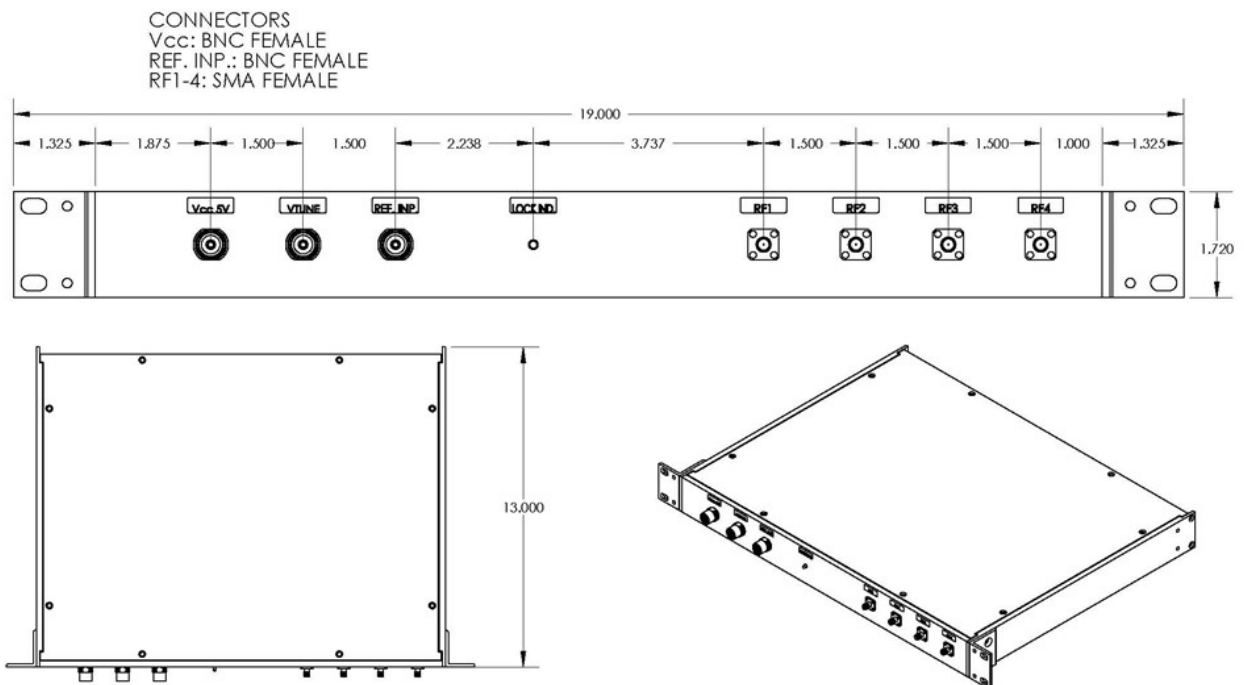
General & Electrical Requirements:

Representative Parameters: Multiple 100MHz Outputs Phase Locked to 10MHz External Reference:

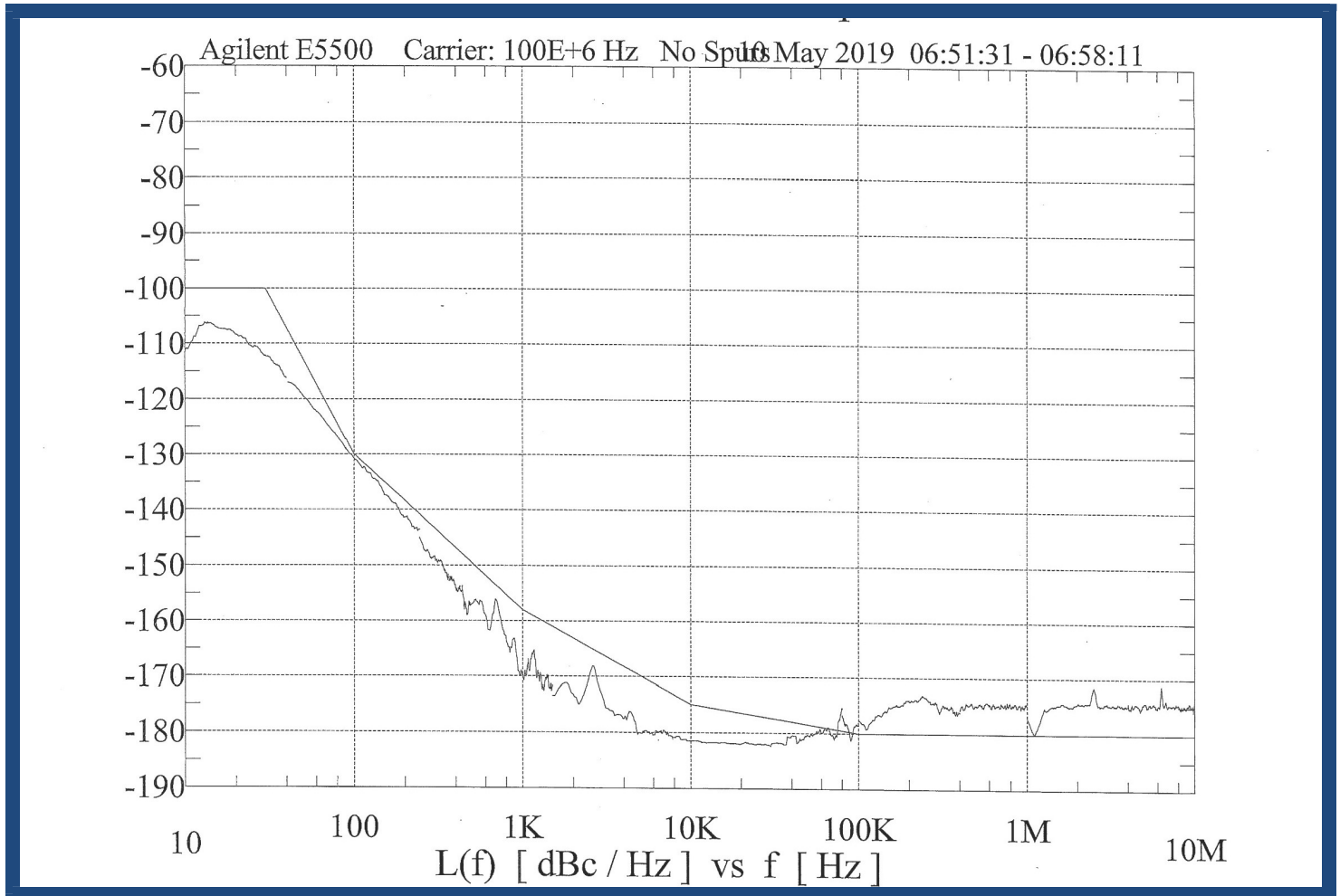
Parameter	Symbol	Min.	Typ.	Max.	Units	Conditions
Nominal Frequency	F _O		100.0000		MHz	
Frequency Stabilities						
vs. Temperature	ΔF _T /F	-100		+100	ppb	Over the Operating Temperature Range
vs. Supply voltage variation		-30		+30	ppb	5% change in supply voltage
Daily Aging		-5		+5	ppb	After 30-days Power On
1 Year Aging		-0.5		+0.5	ppm	
20-Years Aging		-1.5		+1.5	ppm	
RF External Reference (10MHz)						
RF Input Level		-3	+2	+7	dBm	Customer to choose the signal Level between 2+/- 5dB
RF Outputs(100MHz)						
Output Type (Four Ports)		Sinewave				On Port 1 , Port2 , Port 3 and Port 4 simultaneously
Output Level			7		dBm	On Port 1 , Port2 , Port 3 and Port 4 simultaneously
Output Load			50		Ω	±10%
Port Isolation			27		dB	
Output VSWR				1.5:1		

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Additional Parameters						
Tuning Voltage		0		4.5	V	
Tuning Range		+/-2			ppm	
Phase Noise (Under Static Conditions)				-100	dBc/Hz	10Hz Offset
				-130	dBc/Hz	100Hz Offset
				-158	dBc/Hz	1kHz Offset
				-167	dBc/Hz	10kHz Offset
				-170	dBc/Hz	100kHz Offset
				-170	dBc/Hz	1MHz Offset
Harmonics				-25	dBc	
Spurious				-75	dBc	
Warm-up Time				5	minutes	To within ± 0.1 ppm of the frequency after 1-hour of operation @ 25°C
Temperature, Supply Voltage & Power Consumption						
Operating Temperature	OTR	-40		+85	°C	Full Specification Compliance
Storage Temperature	STR	-55		+85	°C	
Operating Voltage	VCC	+4.75	+5.0	+5.25	VDC	
Power Consumption			1.5		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@ Warm-up



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Datasheet Revision Table:

Date	Rev.	Orig.	Details of Revision
07-03-19	A	DPD	Original Draft