MtronPTI XO9085
Rackmount Integrated Frequency Reference

MtronPTI introduced today the XO9085 series Rackmount Integrated Frequency Reference, a High Stability Ultra Low Phase Noise clock reference in a standard 19 inch rack mount configuration. XO9085 is designed for use as an accurate reference clock in an automated test system or as an in-house frequency standard. Many production test systems require a stable external frequency clock as a reference. Depending on the requirement, the XO9085 can support multiple fixed frequency outputs or a single output, up to 6 GHz. The system can be phase-locked to an external clock reference and available with 5V DC, 12V DC or 120/240V AC power supply options.

With its high-stability oven-controlled SC-cut internal reference oscillator, XO9085 offers the industry's lowest purchase cost per output. Normally multiple-output systems offer a more cost-effective solution than a central reference with a costly distribution system.

MtronPTI offers a broad line of precision crystal resonators, oscillators, filters, and Integrated Microwave Assembly solutions. MtronPTI is an ISO 9001:2015 and AS9100 Rev. D certified organization.

Features:

Ultralow phase noise synthesizer

Single or Multiple fixed frequency output

Phase lock to external 10MHz reference

Standard 19 inch rack mount assembly

5V DC, 12V DC or 120/240V AC power supply options

Supports standard and custom frequencies up to 6 GHz

Applications:

System Frequency Source

Test Lab

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_0		100		MHz	
Frequency Stabilities						
vs. Operating Temperature	$\Delta_{F/F}$	-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 Year Aging		-1.5		+1.5	ppm	
RF External Reference (10MHz)						
RF Input Level		-3	+2	+7		Customer to choose the signal Level between 2+/-5dB
RF Outputs (100MHz)						
Output Type (Four Ports)		Sine Wave				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		
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 ±0.1ppm 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	+4.7	+5.0	+5.25	VDC	
Power Consumption			1.5		Watts	Steady state @ 25°C, In Still Air
				4.0	Watts	@Warm-up

CONNECTORS
Vcc: BNC FEMALE
REF. INP.: BNC FEMALE
RF1-4: SMA FEMALE