

Engineering Development Model

Frequency Synthesizer

SSN-EDR9433/1

Important Note

This model has been designed, built and tested in our engineering department. Performance data represents model capability. At present it is a non-catalog model. On request, we can supply a final specification sheet, part number and price/delivery information.



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CASE STYLE : 99-01-769

ELECTRICAL SPECIFICATIONS 50Ω, over -45°C to +85°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	5900		6100	MHz
Step size		500		kHz
Settling Time Within ±1kHz		3		msec
Output Power	-3	+2	+6	dBm
Phase Noise				
at 100 Hz offset		-71		dBc/Hz
at 1 kHz offset		-68		dBc/Hz
at 10 KHz offset		-78		dBc/Hz
at 100 KHz offset		-109	-103	dBc/Hz
at 1000 kHz offset		-130		dBc/Hz
Integrated SSB Phase Noise		30		dBc
Reference Spurious Suppression		-89		dBc
Comparison Spurious Suppression		-99		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-22		dBc
Supply voltage		5		V
VCO		5		V
Supply current		67	76	mA
PLL		9	17	mA
Reference In (External)		10		MHz
Frequency		1		Vp-p
Amplitude		100		kΩ
Impedance		-145		dBc/Hz
Ph. N @ 1kHz				
Input Logic	Logic high	4	5	V
Levels	Logic Low		1	V
Digital Lock Detect	Locked	4.6	5	V
	Unlocked		0.4	V
Frequency Synthesizer PLL	ADF4118			

ABSOLUTE MAXIMUM RATINGS	
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
VCO Supply Voltage	6V
PLL Supply Voltage	6V
Reference Frequency voltage	5.8Vp-p
Data, Clock & LE levels	5.3V

Power On sequence: Vcc VCO followed by Vcc PLL

Power Off sequence: Vcc PLL followed by Vcc VCO

PIN CONNECTIONS			
RF OUT	9	CLOCK	1
VCC VCO	7	DATA	2
VCC PLL	12	LATCH ENABLE	3
REF IN	4	GROUND	5,6,8,10
LOCK DETECT	11		

Notes

A. Performance and quality attributes and conditions not expressly stated in this specification document are intended to be excluded and do not form a part of this specification document.
 B. Electrical specifications and performance data contained in this specification document are based on Mini-Circuits' applicable established test performance criteria and measurement instructions.
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