

Engineering Development Model

Frequency Synthesizer

SSN-EDR11277SA

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 : KJ1367

ELECTRICAL SPECIFICATIONS 50Ω, over -15°C to +75°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	1380		1480	MHz
Step size		100		kHz
Settling Time Within ±1kHz		8.5		msec
Output Power	-3	+1	+5	dBm
Phase Noise				
at 100 Hz offset		-89		dBc/Hz
at 1 kHz offset		-92		dBc/Hz
at 10 KHz offset		-100	-94	dBc/Hz
at 100 KHz offset		-125		dBc/Hz
at 1000 kHz offset		-146	-140	dBc/Hz
Integrated SSB Phase Noise		-52		dBc
Ref & Comp Spurious Suppression		-81		dBc
0.5 Step size Spurious Suppression		-96		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-37		dBc
Supply voltage	VCO	5		V
	PLL	3.3		V
Supply current	VCO	48	56	V
	PLL	14	23	V
Reference In (External)	Frequency	10		MHz
	Amplitude	1		Vp-p
	Impedance	100		kΩ
	Ph. N @ 1kHz	-145		dBc/Hz
Input Logic	Logic high	1.4	3.3	V
Levels	Logic Low		0.6	
Digital Lock	Locked	1.4	3.3	V
Detect	Unlocked		0.4	
Frequency Synthesizer PLL	ADF4153			

ABSOLUTE MAXIMUM RATINGS	
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
VCO Supply Voltage	6V
PLL Supply Voltage	4.3V
Reference Frequency voltage	3.6Vp-p
Data, Clock & LE levels	3.6V

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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