

Engineering Development Model

Frequency Synthesizer

KSN-EDR7987

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 : DK801

ELECTRICAL SPECIFICATIONS 50Ω, over -45°C to +85°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	1681		1742	MHz
Step size		50		kHz
Settling Time Within ±1kHz		10		msec
Output Power	+2	+6	+9	dBm
Phase Noise				
at 1 kHz offset		-71	-65	dBc/Hz
at 10 KHz offset		-103	-97	dBc/Hz
at 100 KHz offset		-128		dBc/Hz
at 1000 kHz offset		-148		dBc/Hz
Integrated SSB Phase Noise		-39		dBc
Reference Spurious Suppression		-101		dBc
Comparison Spurious Suppression		-122		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-52		dBc
Supply voltage	VCO	5		V
	PLL	3.3		V
Supply current	VCO	33	41	mA
	PLL	10	18	mA
Reference In (External)	Frequency	10		MHz
	Amplitude	1		Vp-p
	Impedance	100		kΩ
	Ph. N @ 1kHz	-145		dBc/Hz
Input Logic Levels	Logic high	2.64	3.3	V
	Logic Low		0.66	V
Digital Lock Detect	Locked	2.9	3.3	V
	Unlocked		0.4	V
Frequency Synthesizer PLL	ADF4113			

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	5.8Vp-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	3	CLOCK	10
VCC VCO	5	DATA	11
VCC PLL	1	LATCH ENABLE	12
REF IN	7	GROUND	2,4,6,8,13,14
LOCK DETECT	9		

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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