

## Engineering Development Model

### Frequency Synthesizer

KSN-EDR8979

#### 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	866		885	MHz
Step size		1000		kHz
Settling Time Within ±1kHz		3.5		msec
Output Power	-3	+1	+5	dBm
Phase Noise				
at 100 Hz offset		-91		dBc/Hz
at 1 kHz offset		-91		dBc/Hz
at 10 KHz offset		-109		dBc/Hz
at 100 KHz offset		-137	-131	dBc/Hz
at 1000 kHz offset		-156	-151	dBc/Hz
Integrated SSB Phase Noise		54		dBc
Reference Spurious Suppression		-95		dBc
Comparison Spurious Suppression		-103		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-28	-22	dBc
Supply voltage		5		V
VCO		5		V
Supply current		34	42	mA
PLL		11	20	mA
Reference In (External)		15		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	Locked	4.6	5	V
Detect	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	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	7	CLOCK	10
VCC VCO	5	DATA	11
VCC PLL	1	LATCH ENABLE	12
REF IN	3	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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[www.minicircuits.com](http://www.minicircuits.com) P.O. Box 350166, Brooklyn, NY 11235-0003 (718) 934-4500 [sales@minicircuits.com](mailto:sales@minicircuits.com)

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