

Engineering Development Model

Frequency Synthesizer

KSN-EDR11213

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 : DK1171

ELECTRICAL SPECIFICATIONS 50Ω, over -40°C to +85°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	2600		2600	MHz
Step size		10000		kHz
Settling Time Within ±1kHz		4.5		msec
Output Power	+1	+5	+8	dBm
Phase Noise				
at 100 Hz offset		-86		dBc/Hz
at 1 kHz offset		-91	-85	dBc/Hz
at 10 KHz offset		-109	-104	dBc/Hz
at 100 KHz offset		-132	-127	dBc/Hz
at 1000 kHz offset		-152	-147	dBc/Hz
Integrated SSB Phase Noise		-55		dBc
Ref & Comp Spurious Suppression		-103		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-48		dBc
Supply voltage VCO		5		V
Supply voltage PLL		3.3		V
Supply current VCO		48	56	V
Supply current PLL		11	19	V
Reference In (External)				
Frequency		10		MHz
Amplitude		1		Vp-p
Impedance		100		kΩ
Ph. N @ 1kHz		-145		dBc/Hz
Digital Lock Detect	Locked	2.9	3.3	V
	Unlocked		0.4	
Frequency Synthesizer PLL	Self-programmed (internal microcontroller)			

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	7	N.C	10,11,12
VCC VCO	5	GROUND	2,4,6,8,13,14
VCC PLL	1		
REF IN	3		
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.
C. The parts covered by this specification document are subject to Mini-Circuits' standard limited warranty and terms and conditions (collectively, "Standard Terms"); Purchasers of this part are entitled to the rights and benefits contained therein. For a full statement of the Standard Terms and the exclusive rights and remedies thereunder, please visit Mini-Circuits' website at www.minicircuits.com/MCStore/terms.jsp

