

Engineering Development Model

Frequency Synthesizer

KSN-EDR9370/1

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 : DK1042

ELECTRICAL SPECIFICATIONS 50Ω, over -45°C to +85°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	258.048		258.048	MHz
Step size		6.144		kHz
Settling Time Within ±1kHz		2		msec
Output Power	+2	+5	+9	dBm
Phase Noise				
at 100 Hz offset		-85		dBc/Hz
at 1 kHz offset		-100	-95	dBc/Hz
at 10 kHz offset		-107		dBc/Hz
at 100 kHz offset		-137	-132	dBc/Hz
at 1000 kHz offset		-159	-154	dBc/Hz
Integrated SSB Phase Noise		60		dBc
Reference Spurious Suppression		-89		dBc
Comparison Spurious Suppression		-27		dBc
0.5 Step size Spurious Suppression		-116		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-33	-27	dBc
Supply voltage VCO		5.5		V
Supply voltage PLL		3.3		V
Supply current VCO		44	52	mA
Supply current PLL		14	22	mA
Reference In (External)				
Frequency		61.44		MHz
Amplitude		3		Vp-p
Impedance		100		kΩ
Ph. N @ 1kHz		-145		dBc/Hz
Input Logic Levels	Logic high	1.4	3.3	V
	Logic Low		0.6	V
Digital Lock Detect	Locked	1.4	3.3	V
	Unlocked		0.4	V
Frequency Synthesizer PLL				ADF4153

ABSOLUTE MAXIMUM RATINGS	
Operating Temperature	-45°C to 85°C
Storage Temperature	-55°C to 100°C
VCO Supply Voltage	6.5V
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	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.
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



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