

Engineering Development Model

Frequency Synthesizer

KSN-EDR9658

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	3230		3480	MHz
Step size		250		kHz
Settling Time Within ±1kHz		16		msec
Output Power	-2	+2	+6	dBm
Phase Noise				
at 100 Hz offset		-76		dBc/Hz
at 1 kHz offset		-83	-78	dBc/Hz
at 10 KHz offset		-89	-83	dBc/Hz
at 100 KHz offset		-83	-110	dBc/Hz
at 1000 kHz offset		-137		dBc/Hz
Integrated SSB Phase Noise		-43		dBc
Ref & Comp Spurious Suppression		-86		dBc
0.5 Step size Spurious Suppression		-106		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-26		dBc
Supply voltage				V
VCO		5		V
PLL		3		V
Supply current				mA
VCO		39	48	mA
PLL		20	28	mA
Reference In (External)				
Frequency		30		MHz
Amplitude		1		Vp-p
Impedance		100		kΩ
Ph. N @ 1kHz		-145		dBc/Hz
Input Logic Levels				V
Logic high	1.4		3	
Logic Low			0.6	
Digital Lock Detect				V
Locked	1.4		3	
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	4V
Reference Frequency voltage	3.6Vp-p
Data, Clock & LE levels	3.3V

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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