

Engineering Development Model

Frequency Synthesizer

KSN-EDR10952

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 -20°C to +70°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	4595.32		4597.32	MHz
Step size		298		kHz
Settling Time Within ±1kHz		523		μsec
Output Power	-8	-4	-1	dBm
Phase Noise				
at 100 Hz offset		-76		dBc/Hz
at 1 kHz offset		-81	-75	dBc/Hz
at 10 KHz offset		-88	-82	dBc/Hz
at 100 KHz offset		-115	-110	dBc/Hz
at 1000 KHz offset		-136	-131	dBc/Hz
Integrated SSB Phase Noise		-41		dBc
Ref & Comp Spurious Suppression		-77		dBc
0.5 Step size Spurious Suppression		-94		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-26		dBc
Supply voltage VCO		3.3		V
Supply voltage PLL		3.3		V
Supply current VCO		25	33	V
Supply current PLL		17	25	V
Reference In Frequency		10		MHz
Reference In Amplitude (External)		1		Vp-p
Reference In Impedance		100		kΩ
Reference In Ph. N @ 1kHz		-145		dBc/Hz
Input Logic Levels Logic high	1.4		3.3	V
Input Logic Levels Logic Low			0.6	V
Digital Lock Detect Locked	2.9		3.3	V
Digital Lock Detect Unlocked			0.4	V
Frequency Synthesizer PLL	ADF4157			

ABSOLUTE MAXIMUM RATINGS	
Operating Temperature	-40°C to 85°C
Storage Temperature	-55°C to 100°C
VCO Supply Voltage	4.3V
PLL Supply Voltage	4.3V
Reference Frequency voltage	3.6Vp-p
Data, Clock & LE levels	3.6V

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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