

Engineering Development Model

Frequency Synthesizer

SSN-EDR11130SA

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 : KJ1367

ELECTRICAL SPECIFICATIONS 50Ω, over -10°C to +75°C				
Parameter	Min.	Typ.	Max.	Units
Frequency	1200		1400	MHz
Step size		500		kHz
Settling Time Within ±1kHz		0.9		msec
Output Power	+1	+5	+10	dBm
Phase Noise				
at 100 Hz offset		-90		dBc/Hz
at 1 kHz offset		-93		dBc/Hz
at 10 KHz offset		-92	-87	dBc/Hz
at 100 KHz offset		-92		dBc/Hz
at 1000 kHz offset		-133	-127	dBc/Hz
Integrated SSB Phase Noise		39		dBc
Reference Spurious Suppression		-81		dBc
Comparison Spurious Suppression		-109		dBc
Non-Harm. Spurious Suppression		-90		dBc
Harmonic Suppression		-37	-28	dBc
Supply voltage VCO		5		V
Supply voltage PLL		3.3		V
Supply current VCO		45	53	mA
Supply current PLL		10	18	mA
Reference In Frequency		10		MHz
Reference In Amplitude		1		Vp-p
Reference In Impedance		100		kΩ
Reference In Ph. N @ 1kHz		-145		dBc/Hz
Input Logic Levels Logic high	2.64		3.3	V
Input Logic Levels Logic Low			0.66	V
Digital Lock Detect Locked	2.9		3.3	V
Digital Lock 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	4.3V
Reference Frequency voltage	5.8Vp-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	9	CLOCK	1
VCC VCO	7	DATA	2
VCC PLL	12	LATCH ENABLE	3
REF IN	4	GROUND	5,6,8,10
LOCK DETECT	11		

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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