Engineering Development Model

Frequency Synthesizer KSN-EDR10970

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 -40°C to +85°C					
Parameter		**Min.**	**Typ.**	**Max.**	**Units**
Frequency		490		490	MHz
Step size			7000		kHz
Settling Time	**Within ±1kHz**		540		usec
Output Power		-4	0	+3	dBm
Phase Noise					
	at 100 Hz offset		-101		dBc/Hz
	at 1 kHz offset		-106	-100	dBc/Hz
	at 10 KHz offset		-108	-102	dBc/Hz
	at 100 KHz offset		-131	-125	dBc/Hz
	at 1000 kHz offset		-156	-151	dBc/Hz
Integrated SSB Phase Noise			-62		dBc
Reference Spurious Suppression			-80		dBc
Comparison Spurious Suppression			-26		dBc
Non-Harm. Spurious Suppression			-90		dBc
Harmonic Suppression			-35		dBc
Supply voltage	**VCO**		5		V
	PLL		5		V
Supply current	**VCO**		40	48	V
	PLL		12	20	V
Reference In (External)	**Frequency**		49		MHz
	Amplitude		1		Vp-p
	Impedance		100		kΩ
	Ph. N @ 1kHz		-145		dBc/Hz
Digital Lock Detect	**Locked**	4.6		5	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	6V
Reference Frequency voltage	5.8Vp-p
Data, Clock & LE levels	5.3V

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		