Programmable Frequency Synthesizer

8-16 GHz
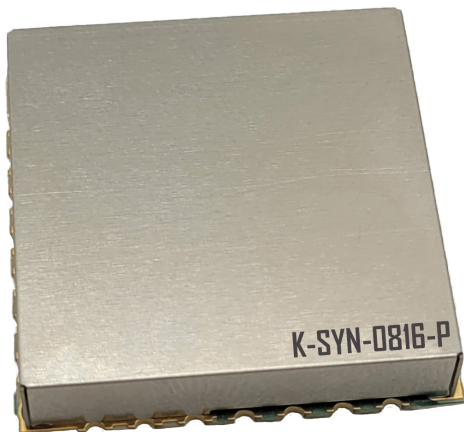
ReliaSat

K-SYN-0816-P

Programmable Microwave Synthesizer.

Overview

The K-SYN-0816-P is a programmable low-phase noise Microwave Frequency Synthesizer. This product comes in a tiny surface mount package measuring 25.4 mm x 25.4 mm x 6.35 mm. The frequency of the synthesizer is custom in the range of 8-16 GHz.

Features

- Programmable frequency in the range of 8-16 GHz
- -103 dBc/ Hz phase noise at 10 KHz
- 25.4 x 25.4 mm surface mount package
- 0 dBm output power
- Low reference spurs (<-80 dBc)
- Reference signal input 10 MHz, 100 MHz or custom on request

Applications

- Satellite communications
- Radar
- Mobile communications
- 5G

Physical Specifications

Parameter	Typ	Unit
Size	25.4 x 25.4 x 6.35	mm
Weight	4	grams

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Specification Overview

Parameter		Typ	Unit
Frequency Range[1]		8-16	GHz
Step Size[2]		Custom	
Phase Noise[3]			
	1 kHz	-93	dBc/Hz
	10 kHz	-103	dBc/Hz
	100 kHz	-107	dBc/Hz
	1 MHz	-121	dBc/Hz
Power Supply @ 3.3 V Power Supply @ 5.0 V		250 150	mA
Output Power		1 ±2	dBm
Load Impedance		50	Ω
Spurious		<-80	dBc
Harmonics[3]		-25	dBc
Subharmonics[3]		-25	dBc
Programming Interface		UART	
Settling Time (please contact ReliaSat for <100 µs option)		3.5	ms
Reference Signal Input[4]		10 / 100 / Custom on request	MHz
Operating Temperature		-40 to +85	°C

Specification References

1. Can operate up to 16.8 GHz but not guaranteed.
2. Default is 200 MHz if not specified during ordering.
3. 16 GHz carrier with 200 MHz step size. Lower frequencies have better phase noise performance. The phase noise degrades with a lower step size.
4. Should be lower than 200 MHz.

Contact Information

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