



Smart PLL Frequency Synthesizer 3-4 GHz

SSG3500A Rev A1 PHASE NOISE (1 Hz BW, typical)

Features				PHAS	E NOISE	E (1 H	lz BW, i	typical)		
Bluetooth Interface		▶Phase No -20.00	ise 10.00dB/ Ref -20.00d	Bc/Hz			Carrier	3.500013629	GHz 6.7066	dBm
LED Indicators		-30.00				2:	10 kHz 100 kHz 100 kHz	-110.3905	dBc/Hz dBc/Hz dBc/Hz	
Rugged, all Metal Enclosure		-40,00				4: 5: >6:	1 MHz 10 MHz 1 kHz	-123.6067 -143.0062 -103.0826	dBc/Hz dBc/Hz dBc/Hz	
Internal Reference Oscillator		-50,00								
Input For External Reference Oscillator	•	-60.00								
Excellent Phase Noise		-80.00								
Low Power Consumption		-90.00								
Multiple Frequency Ranges Available F	rom 500 MHz - 7 GHz	<u>Өр</u> -100,0	the second secon		k					
Applications		(J) -110.0		1 <u>1</u> 2		Å				
Radar		-120.0						-	4	
Frequency Conversion		-140.0								~
Signal Generator		-150.0								5
Test & Measurement		-160.0								
Defense		-170.0								
Commercial Communication				20x	05505		\ \	<u>XIX</u>		KUN
SATCOM					OFFSE	i (Hz)			
Performance Specifications with Out A	Attenuation	Min	Т	ур		Мах	(Un	its	
Frequency		3000				4000		MH	łz	

riequency					
Phase Noise @ 1 kHz		-103	-98	dBc/Hz	
Phase Noise @ 10 kHz offset (1 Hz BW)		-110	-105	dBc/Hz	
Phase Noise @ 100 kHz		-110	-105	dBc/Hz	
Harmonic Suppression (2nd)		-15		dBc	
Power Output	6	7	8	dBm	
Operating Temperature Range	-30		70	°C	
Package Style					

Power Supply Requirements	Min	Тур	Max Units	
Supply Voltage		18		Vdc
Supply Current		70		mA
Reference Oscillator	Min	Тур	Max	Units
Frequency		100		MHz
Phase Noise @1 kHz Offset		-140		dBc/Hz

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Rev A1

SSG3500A

Smart PLL Frequency Synthesizer GHz 3-4 Description

The Z-COMM SSG series of Smart Phase Locked Loop (PLL) modules provide high performance in a compact, all metal package suitable for any number of applications. Fully programmable through a unique Bluetooth interface, or USB cable, the user may adjust functions such as frequency, sweep mode, dwell time, step size, and power output, among others. LED indicators provide a visual cue of the status of the various functions. Its rugged enclosure lends itself to in-field use as well as bench top testing. The highly reliable output signal, excellent phase noise, and flexibility of an internal reference or input for an external reference, provides RF Engineers with an adaptable RF tool.



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