SPECIAL FEATURES

- Fast Switching: ≤ 500 ns
- Low Phase Noise
- High Vibration Operation: 20 g_{rms}

This high speed indirect synthesizer contains two parallel, indirect synthesizers, and offers fast hopping between channels. Under the control of the input tune word, each dual phase lock loop synthesizer is tuned to within 5 degrees of phase settling in 25 microseconds while additional logic allows for channel to channel speeds of 500 nanoseconds maximum.

The electrical design, parts selection and packaging are compatible with the toughest military applications. The modular architecture allows for performance variations; for example, in the same volume up to 500 MHz BW, output frequencies as high as 5 GHz, or resolution as small as 500 kHz can be provided. Note 1

ELECTRICAL SPECIFICATIONS

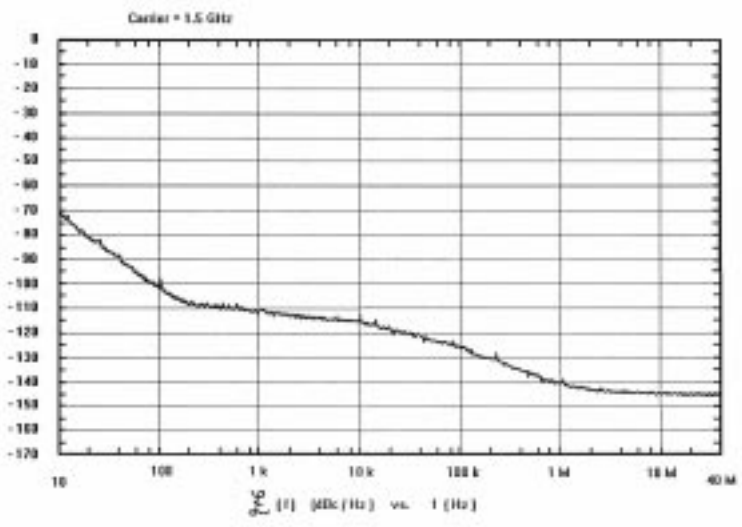
	Synthesizer Output, Port 1	Ref. Input, Port 2	LO Input, Port 3
Frequency Range:	1.5 - 1.8 GHz	64 MHz	1920 MHz
Step Size:	2 MHz, typical		
Switching Speed: Note 2			
Channel to Channel	500 ns, maximum		
Single Channel	25 µs, typical		
Output Power:	+ 12 dBm, typical	ECL	+ 10 dBm
Power Flatness:	± 2 dB		± 2 dB
SSB Phase Noise (dBc/Hz, typical):			
offset			
1 kHz	- 110	- 150	- 117
10 kHz	- 112	- 155	- 127
100 kHz	- 123	- 155	- 127
1 MHz	- 140	- 155	- 137
Accuracy:	Same as Reference Input		
Spurious:	- 60 dBc, maximum		
Harmonics:	- 40 dBc, maximum		
VSWR:	1.5:1, typical		
Tuning Control:	9 bit TTL, Parallel plus Strobe		
BITE Scheme:	Amplitude & Phase Lock bits		
RF Monitor Outputs:	Port 5 & Port 6; 0 dBm ± 3 dB		
DC Power:	+ 15 V @ 800 mA, typical		
	- 15 V @ 100 mA, typical		
	+ 5 V @ 1500 mA, typical		
	- 5 V @ 300 mA, typical		
Power Consumption:	23 W, typical		

ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	- 54 to + 55 °C, baseplate
Operating Vibration:	20 g_{rms}
Vibration Sensitivity:	5 x 10^{-10}/g
Environment:	Various

MECHANICAL SPECIFICATIONS

Size (excluding connectors):	9 x 6 x 1.5 inches
	229 x 153 x 38 mm
Connectors:	44 Pin "D", Blind Mate RF
Weight:	4 lbs (1814 g), approximate



Note 1: Performance variations offered in the same volume may affect other specifications.
Note 2: Switching speed is specified to within ± 5° of the final frequency. See application note on Page 104.
Specifications subject to change without notice.

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