

## SPECIAL FEATURES

- **Low Phase Noise**
- **Fast Switching:** < 250  $\mu$ s
- **Low Power Consumption:** < 14 watts
- **BIT for Phase Lock**
- **Small Size:** < 31 cubic inches
- **Low Weight:** < 2 lbs



This series of synthesizers is designed for use in ground based and airborne data links. The units operate from a single L-Band phase locked loop and upconversion is achieved via a low noise PLDRO. This provides good phase noise without compromising switching speed.

In addition, by simply changing the PLDRO frequency, the synthesizer's final output can operate over any 500 MHz bandwidth from X to Ku Bands. The flexible electrical design, high reliability parts selection and rugged packaging are suited for a variety of tough environments. This unit can be offered with 2 MHz resolution and vibration testing.

## ELECTRICAL SPECIFICATIONS

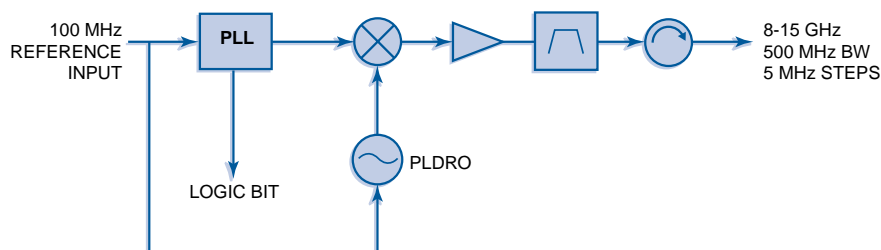
Frequency Range:	8 - 15 GHz
Bandwidth:	500 MHz, maximum
Step Size:	5 MHz <sup>Note 1</sup>
Switching Speed:	250 $\mu$ s to within 10 kHz of the final frequency
Output Power:	+ 10 dBm $\pm$ 2 dB, nominal
SSB Phase Noise (dBc/Hz, typical):	
offset	
10 kHz	- 90
100 kHz	- 105
1 MHz	- 125
Reference Signal:	100 MHz input @ 0 dBm, minimum
Accuracy:	Same as Reference Input
Spurious:	- 60 dBc, maximum
Harmonics:	- 30 dBc, maximum
Tuning Control:	8 bit Parallel plus Strobe
BITE Scheme:	Phase Lock bit (TTL "1" = lock indicated)
DC Power:	+ 28 V @ 180 mA, typical + 15 V @ 500 mA, typical + 5 V @ 100 mA, typical
Power Consumption:	14 W, typical
MTBF:	$\geq$ 25,000 hrs (+ 85 °C)

## ENVIRONMENTAL SPECIFICATIONS

Operating Temperature:	- 40 to + 85 °C, baseplate
Environment:	Airborne and Ground

## MECHANICAL SPECIFICATIONS

Size (excluding connectors):	6 x 3.6 x 1.4 inches 152 x 91 x 36 mm
Weight:	2 lbs (0.9 kg), maximum
Connectors:	Sub-D, 25 pin and SMA (F)



Note 1: Step sizes as low as 1 MHz are available.  
Specifications subject to change without notice.