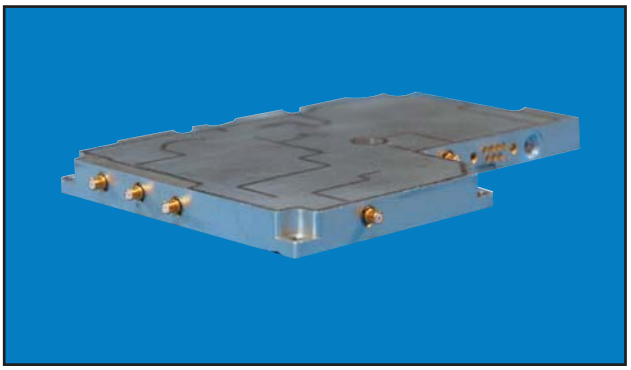
Synthesizer
X-Band Direct Synthesizer/Up Converter
Model: SYN152

Features:

- Low Residual Phase Noise
- X2, X3, X4, and X17 Multiplied Output Ports
- Selectable L-Band Port Provides Wideband X-Band Output
- Fast LVTTL Switching Between Multiplied X-Band Output and IF Supplied Output (Less Than 50 nS)
- X-Band BIT Detector
- -65 dBc Harmonics (Under Most Conditions)
- Low Profile, Hermetically Sealed, Laser Welded Package



Electrical Specifications

Input Ports

UHF Input Frequency	UHF ±10 MHz
UHF Input Power	-6 dBm +/- 2 dB
Ext Input Frequency	L-Band ±400 MHz
Ext Input Power	0 dBm +/- 2 dB
VSWR	2.0:1, maximum

Output Ports

L-Band Output Frequency	L-Band ±20 MHz
X2 L-Band Output Power	4 dBm +/- 1.5 dB
X3 L-Band Output Power	2 dBm +/- 1.5 dB
X4 S-Band Output Power	0 dBm +/- 1.5 dB
X-Band Output Frequency (Including X17)	X-Band ±400 MHz
X-Band Output Power	10 dBm +/- 2 dB
VSWR	2.0:1, maximum

Harmonic/Spurious

L/S-Band Ports	-65 dBc maximum
	-50 dBc (above 6.4 GHz)
X-Band	-65 dBc, maximum
	-30 dBc (in-band)

Residual Phase Noise (dBc/Hz)

Offset	X3 L-Band	X4 S-Band	X2 L-Band	J6 X-Band
100 Hz	-126	-124	-129	-111
1 KHz	-136	-133	-139	-121
10 KHz	-145	-143	-148	-130
100 KHz	-148	-145	-151	-132
1 MHz	-148	-145	-151	-132

Mechanical Specifications

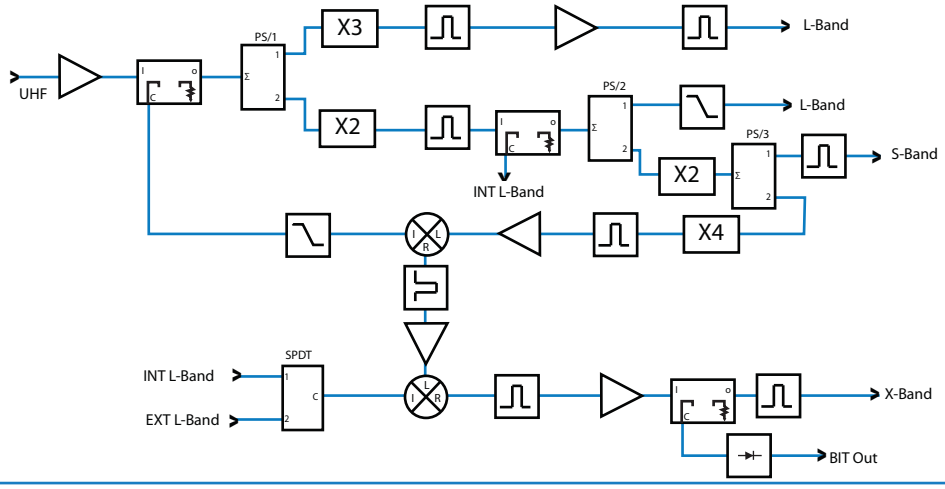
Size:	5.46" x 3.74" x 0.41"
Weight:	< 0.5 lb (220 g)
RF Connectors:	Hermetic SSMP (X-Band) & SMP
DC Connectors:	EMI Filtered Solder Pins

Environmental Specifications

Operating Temperature:	-40 to +85 C
Environment:	Airborne

DC Requirements

+5 V	500 mA	2.5 W
+9 V	650 mA	5.85 W
-8 V	20 mA	0.16 W
	Total	~8.5 W



Specifications subject to change without notice.

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