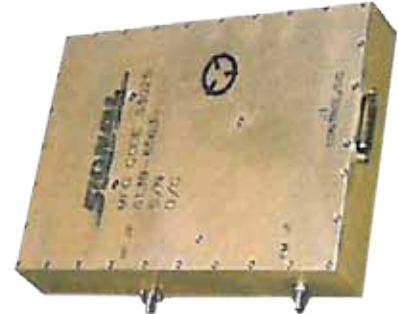


# FREQUENCY SYNTHESIZER

## Model Number 6139-6458-00

### FEATURES

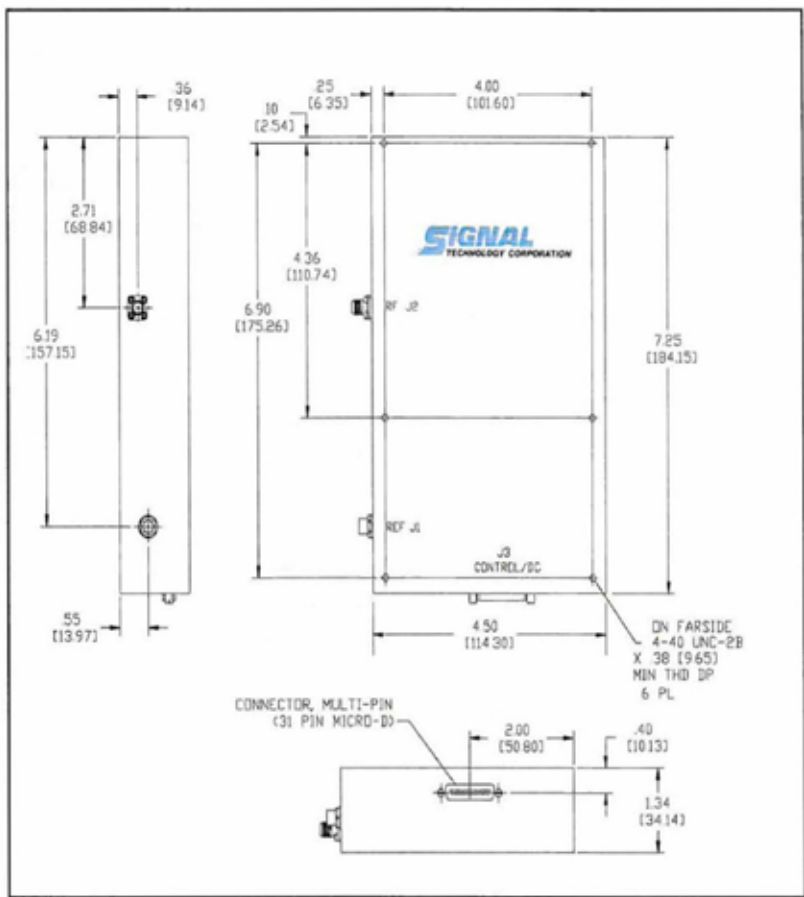
- RWR, Emitter Locator (Interferometer), Techniques Generator,
- EW Simulator and Instrumentation Applications
- Broadband, single Loop Design, Low Cost
- VME Compatible (6 U/2 Slots)
- Internal reference, Smaller Step Size, Extended Temperature Range, Custom Interface Available



Frequency	2 to 18 GHz	
Power Output	+10 dBm, minimum, +16 dBm, maximum	
Tuning Control	11 bits (TTL compatible)	
Tuning Step Size	10 MHz	
Strobe Definition	Edge triggered, positive going, TTL levels Option: Negative going	
Harmonics	-25 dBc, maximum	
Subharmonics	-60 dBc, maximum	
Spurious	-60 dBc, maximum	
Switching Speed	100 $\mu$ sec maximum within $\pm$ 100 kHz	
Frequency Stability	Same as reference	
External Reference		
Frequency	10 MHz	
Power	-3 to +3 dBm	
Input Impedance	50 ohms	
Output VSWR	2.0:1, maximum	
Phase Noise (SSB)	dBc/Hz (typical)	dBc/Hz (typical)
Offset	@ 9 GHz	@ 18 GHz
100 Hz	-68	-62
1 kHz	-73	-65
10 kHz	-73	-65
100 kHz	-73	-65
1 MHz	-100	-95
DC Power	+15 Volts @ 1.65 A maximum, 25 mV pp maximum ripple $\pm$ 3% (10 kHz to 1 MHz) -15 Volts @ 0.5 A maximum, 25 mV pp maximum ripple $\pm$ 3% (10 kHz to 1 MHz)	
Temperature Range	-40°C to +85°C Operating, -54°C to +100°C Storage	
RF Connectors	SMA Female	
DC and Tuning Connector	31 Pin D-Subminiature	
Dimensions	7.25 x 4.50 x 1.34 inches	

# FREQUENCY SYNTHESIZER

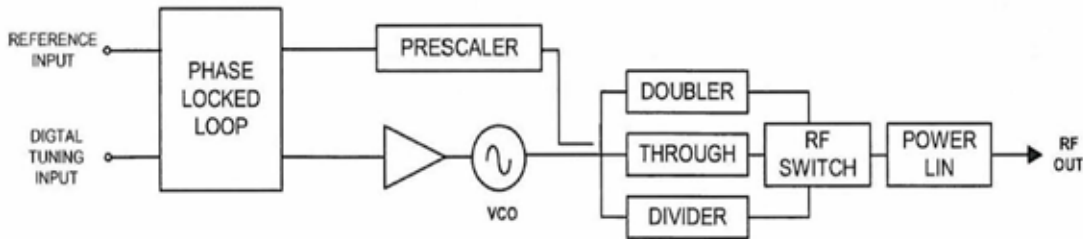
## OUTLINE DRAWING



**MULTI-PIN CONNECTOR FUNCTION TABLE**

z	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	-15 VDC	9	DATA 10 (MSB)	17	+15 VDC	25	N/C (Data 11, Optional)
2	-15 VDC	10	DATA 9	18	+15 VDC	26	N/C (Data 12, Optional)
3	RTN, -V	11	DATA 8	19	RTN, +V	27	N/C (Data 13, Optional)
4	RTN, -V	12	N/C (Optional Mute)	20	RTN, +V	28	N/C (Data 14, Optional)
5	RTN, DIGITAL	13	N/C (Optional Power Detect)	21	DATA 5	29	N/C (Data 15, Optional)
6	RTN, DIGITAL	14	Lock Detect	22	DATA 1	30	DATA 7
7	DATA 4	15	DATA 3	23	DATA 0 (LSB)	31	DATA 6
8	RTN, DIGITAL	16	DATA 2	24	STROBE		

**TYPICAL SYNTHESIZER BLOCK DIAGAM**



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