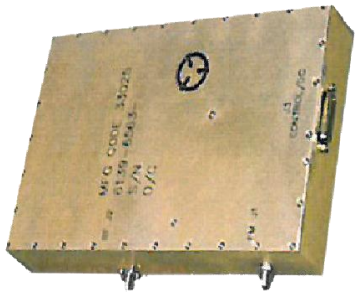
6139-6566-00 – DIGITALLY TUNED OSCILLATOR

TECHNICAL FEATURE

FEATURES

- Broadband, digital tuning
- Low post-tuning drift (PTD)
- Linear wideband FM modulation capability (optional)
- Internal heater for frequency stability



Frequency	2 to 6 GHz (2 to 9 GHz Optional)	
Power Output	+10 dBm, minimum, +16 dBm, maximum	
Sub-bands (at +25°C)	1.985 to 3.015 GHz 2.985 to 4.515 GHz 4.485 to 6.015 GHz 5.985 to 9.015 GHz	
Digital Tuning	12 bits, 2 band select bits, 0.5 MHz/bit, nominal Option: to 0.25 MHz/bit	
Post Tuning Drift (1 µS to 1 S)	≤ 0.02% of selected frequency (or 1 MHz, whichever is greater)	
Harmonics, Integer	-25 dBc, maximum	
Harmonics, Fractional	-60 dBc, maximum	
Spurious	-60 dBc, maximum	
Residual FM (-3 dB points)	100 kHz p-p, maximum	
Phase Noise	Offset	dBc/Hz, max
	100 kHz	-68
	1 MHz	-86
	10 MHz	-116
Bias Pushing	±0.2 MHz/V, maximum	
Output VSWR	2.0:1, maximum	
Load Pulling (2.0:1 VSWR)	±1.0 MHz, maximum	
Frequency Stability, -54°C to +85°C Includes set-on accuracy	±10 MHz, maximum	
DC Power	+15 volts @ 1.4 A maximum, 25 mV p-p maximum ripple ±3% (10 kHz to 1 MHz) -15 volts @ 0.5 A maximum, 25 mV p-p maximum ripple ±3% (10 kHz to 1 MHz)	
Heater Supply	+28 Volts A 2.0 A, maximum @ -54°C	
Analog Tuning (FM Modulation)	DC to 10 MHz, ±3 dB bandwidth Input Impedance: 1 kOhm, nominal	
	Band	Modulation Deviation / Modulation Sensitivity
	1	200 MHz p-p, min. / 40 MHz/V, min.
	2	300 MHz p-p, min. / 60 MHz/V, min.
	3	400 MHz p-p, min. / 80 MHz/V, min.
	4	600 MHz p-p, min. / 120 MHz/V, min. (optional)
	Modulation Sensitivity Ratio ≤5% deviation, 1.2:1, maximum ≤20% deviation, 2.0:1, maximum (Deviation cannot extend past sub-band limits)	
Temperature Range	-54°C to +85°C Operating, -54°C to +100°C Storage	
RF & FM Tuning Connectors DC, Heater Power & Digital Input Connector	SMA Female 31 Pin D-Subminiature	
Dimensions	7.25 x 4.50 x 1.34 inches	

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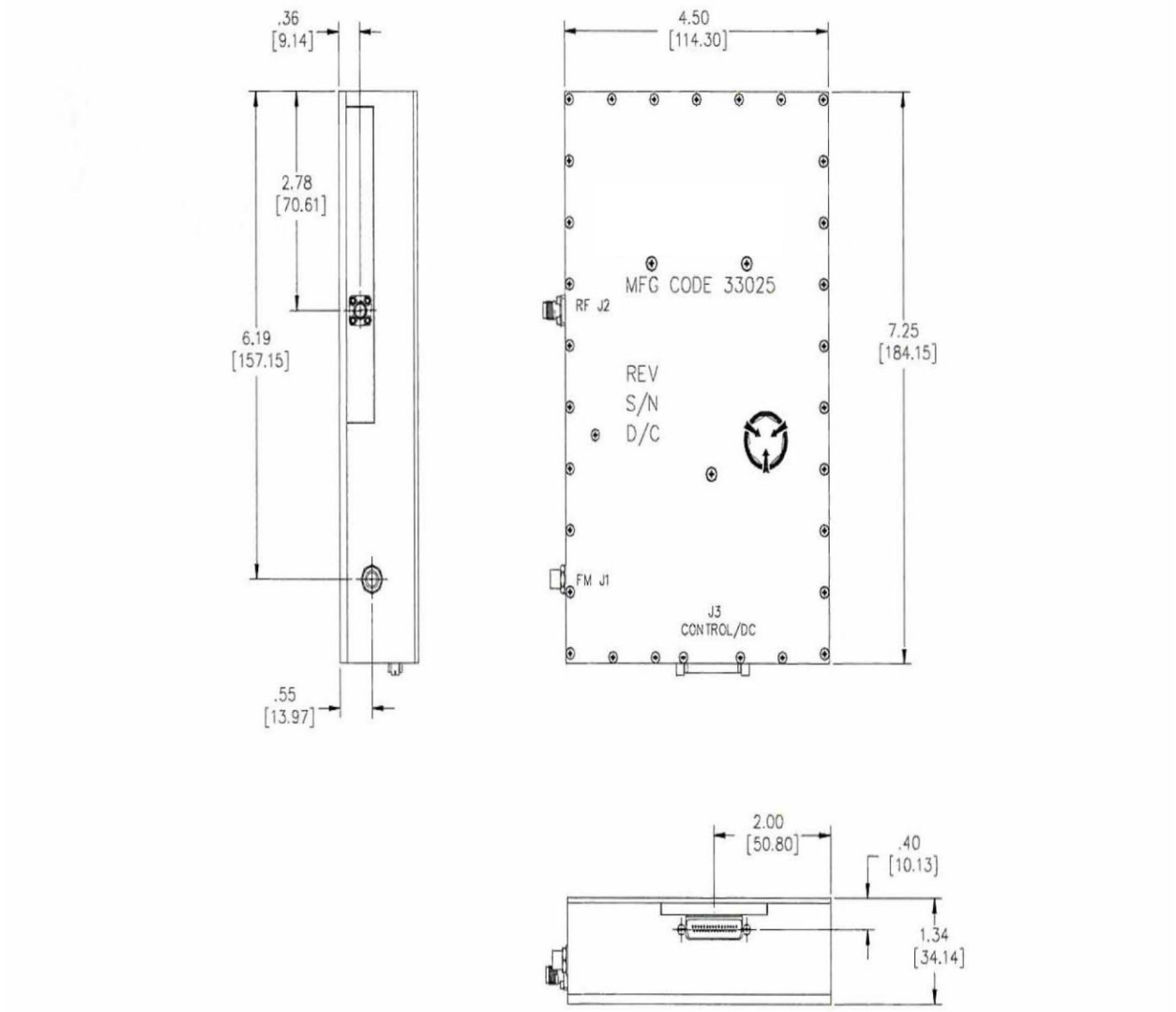
OUTLINE DRAWING



MULTI-PIN CONNECTOR FUNCTION TABLE

PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION	PIN	FUNCTION
1	-15 VDC	9	DATA 10	17	+15 VDC	25	DATA 11
2	-15 VDC	10	DATA 9	18	+15 VDC	26	DATA 12 (MSB)
3	RTN, -V	11	DATA 8	19	RTN, +V	27	BAND SELECT 2 (MSB)
4	RTN, -V	12	BAND SELECT 0 (LSB)	20	RTN, +V	28	+28 VDC HTR RTN
5	RTN, DIGITAL	13	+28 VDC HTR	21	DATA 5	29	+28 VDC HTR
6	RTN, DIGITAL	14	+28 VDC HTR RTN	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	BAND SELECT 1		