

GCS/DATRON COMMUNICATIONS-ON-THE-MOVE (COTM) TERMINAL



FSS-4180LC COTM		
Specification	MIL	Commercial
Antenna	18-inch circular	18-inch circular
EIRP	47.4 dBW (Mid Band, p1dB)	46 dBW (Mid Band, p1dB)
G/T	12.8 dB/k (Mid Band)	12 dB/k (Mid Band)
Transmit		
Output Frequency	30.0 to 31.0 GHz (Military Ka)	29.0 to 30.0 GHz (Commercial Ka)
Input Frequency	1000 to 2000 MHz (LO=29/30 GHz)	1000 to 2000 MHz (LO=28/29 GHz)
SSPA Power	5 W (P1dB point)	5 W (P1dB point)
Transfer Gain	45 dB (Nominal, Antenna input to SSPA output)	45 dB (Nominal, Antenna input to SSPA output)
Polarization	RHCP, LHCP (Cross Pol.)	RHCP, LHCP (Co/Cross Pol.)
SSB Phase Noise	MIL-STD-188-164A	MIL-STD-188-164A
Gain Variation	MIL-STD-188-164A	MIL-STD-188-164A
Forward Power Detector	Accurate to <1dB (SSPA output in dBm)	Accurate to <1dB (SSPA output in dBm)
Receive		
Input Frequency	20.2 to 21.2 GHz (Military Ka)	19.2 to 20.2 GHz (Commercial Ka)
Output Frequency	1000 to 2000 MHz (LO=19.2/20.2 GHz)	1000 to 2000 MHz (LO=18.2/19.2 GHz)
Noise Figure	1.3 dB (Maximum @ 23 deg. C.)	1.3 dB (Maximum @ 23 deg. C.)
Transfer Gain	+55 dB (Nominal)	+55 dB (Nominal)
Polarization	LHCP, RHCP	LHCP, RHCP
SSB Phase Noise	MIL-STD-188-164A	MIL-STD-188-164A
Gain Variation	MIL-STD-188-164A	MIL-STD-188-164A
Voltage	14-20 VDC (300mA) (required on RX line at antenna base)	14-20 VDC (300mA) (required on RX line at antenna base)
Terminal		
Power Consumption	400 W (Continuous) 700 W (Peak)	400 W (Continuous) 700 W (Peak)
MTBF	50,000 hours	50,000 hours
External Reference	10 MHz, -5 to +5 dBm (to be provided on both Tx and Rx at antenna base)	10 MHz, -5 to +5 dBm (to be provided on both Tx and Rx at antenna base)
Weight	<120 lb. (55 kgs)	<120 lb. (55 kgs)
Environment	MIL-STD-810F	MIL-STD-810F
Size	26x26 in 66x66 cm	26x26 in 66x66 cm