

CSAT-5060

C-Band Transceiver 50 and 100 Watt

Transmit				
Frequency, RF	5845 to 6425 MHz 6425 to 6725 MHz (Optional Extended) 5850 to 6650 MHz (Optional Wide) 5845 to 6725 MHz (Optional Super Wide)		Frequency Stability	1x10 ⁻⁶ /day 1x10 ⁻⁷ /year -40° to +55°C
Output Power, P ₁₀₀	70 MHz ± 18 MHz 140 MHz ± 36 MHz (Optional) (50W) +47 dBm (100W) +50 dBm		Attenuation steps	Tx 0-25 dB in 0.25 dB steps Rx 0-20 dB in 0.25 dB steps
Gain	(50W) 74 dB (100W) 77 dB		Phase Noise	100 Hz -66 dBc/Hz 1 kHz -76 dBc/Hz 10 kHz -86 dBc/Hz 100 kHz -96 dBc/Hz
Attenuator Range	25 dB in 0.25 dB steps		Group Delay	Linear 0.1 ns/MHz Parabolic 0.02 ns/MHz ² Ripple 1 ns p-p
Gain Flatness	± 0.75 dB full RF band ± 0.75 dB per 36 MHz		Monitor and Control	
Gain Stability	± 0.25 dB at constant C ± 1.00dB from -40° to +55°C (-40 to 131° F)		Methods Interface	Both EIA-485 and EIA-232 Serial
Carrier Mute	-70 dBc		Commands	Handheld controller, optional Set Tx frequency Set Rx frequency Set Tx attenuation Set Rx attenuation Report Tx output power Mute Tx Report internal temperature Report power supply voltages Set time Set date
Intermodulation	-33 dBc for two carriers at 6 dB OPBO from rated power		Faults	Upconverter functions Downconverter functions Upconverter Synthesizers Downconverter Synthesizers Internal Reference oscillator LNA current fault Over temperature condition
Second Harmonic Spurious	-55 dBc AC line harmonics -45 dBc Carrier related, <500kHz -60 dBc		Environmental	
All other in-band	(50 W) -18 dBm -65 dBc (100 W) -15 dBm -65 dBc		Temperature	-40° to +55° C (-40 to 122° F) Operating -50° to +75° C (-90 to 135° F) Storage
AM to PM Conversion	3.0° at 6 dB OPBO from rated power		Altitude	15,000 ft, mean sea level
RF Output VSWR	1.25:1		Humidity	0 to 100 Percent, Relative
RF Output Connector	CPR137G		Prime Power	90 to 260 VAC Standard 47 to 63 Hz Standard 48 VDC Optional
IF Input Impedance	50 Ohms		Dimensions:	50 W 9.75H x 10W x 23D inch (24.77H x 25.4W x 58.42D cm) 100 W 10 H x 12.5W x 26D inch (25.4H x 31.75W x 66.04D cm)
IF Input VSWR	1.25:1		Weight:	50 W 65 lbs (29 kg) 100 W 80 lbs (40 kg)
IF Input Connector	Type N Female		Low Noise Amplifier	45° K, non-isolated
Receive				
Frequency RF	3625 to 4200 MHz 3400 to 4200 MHz (Optional)			
Frequency IF	70 MHz ± 18 MHz 140 MHz ± 36 MHz (Optional)			
Gain, without LNA	45 dB			
Gain Flatness, without LNA	± 0.75 dB full RF band ± 0.75 dB per 36 MHz			
Gain Stability, w/o LNA	± 0.25 dB constant temp. ± 1.00 dB -40° to +55°C			
Output Power, P1dB	+13dBm			
Two Tone Inter-modulation	-50 dBc for two tones at 0 dBm each, 1 MHz apart			
Image Rejection	-60 dBc			
RF Input VSWR	1.25:1			
RF Input Connector	Type N Female			
IF Output Impedance	50 Ohms			
IF Output VSWR	1.25:1			
IF Output Connector	Type N Female			
Common				
Conversion	Dual, no spectral inversion			
Frequency Step Size	1.0 and 2.5 MHz automatic			



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