

Block Up Converter

High power C-Band and Ku-Band SPECIFICATIONS

BLOCK UP CONVERTER AND SSPA

IF input	
Frequency range	
C-Band	950 to 1525 MHz
Ku-Band	950 to 1450 MHz 950 to 1700 MHz
Impedance	50 Ω
Connector	N female
VSWR	1.5:1 maximum
Gain specification	
Gain @ 12 dB LBUC attenuator setting and 10 dB SSPA attenuator setting	
C-Band 120 W	75 dB nominal
Ku-Band 40 W	75 dB nominal
Gain flatness	±0.8 dB typical, 40 MHz ±1.8 dB typical, full band
Gain stability	±2.0 dB over -40 to +55°C typical
RF output (C-Band)	
Frequency range	5.850 to 6.425 GHz
Output power @ 1 dB GCP	
120 W	+50.8 dBm (120 W) typical +50.0 dBm (100 W) minimum
Carrier to intermodulation ratio	-26 dBc, two carriers, each @ 6 dB OPBO from 1 dB GCP
Connector	CPR137G
VSWR	1.25:1 maximum
RF output (Ku-Band)	
Frequency range	
Band 1	14.0 to 14.5 GHz
Band 2	13.75 to 14.5 GHz
Output power @ 1 dB GCP	
40 W	+46.7 dBm (47 W) typical +46.0 dBm (40 W) minimum
Carrier to intermodulation ratio	-25 dBc, two carriers, each @ 6 dB OPBO from 1 dB GCP
Connector	PBR120 flange (WR75)
VSWR	1.3:1 maximum
Phase noise (SSB)	
100 Hz	-63 dBc/Hz maximum
1 kHz	-73 dBc/Hz maximum
10 kHz	-83 dBc/Hz maximum
100 kHz	-93 dBc/Hz maximum
Frequency reference	
Frequency	10 MHz
Level	-10 to +5 dBm

Phase noise (SSB)	
100 Hz	-135 dBc/Hz maximum
1 kHz	-145 dBc/Hz maximum
10 kHz	-155 dBc/Hz maximum
100 kHz	-155 dBc/Hz maximum
Input connector	Multiplexed on the transmit IF
Frequency conversion	
LO frequency	
C-Band	7300, 7375 MHz user selectable
Ku-Band	15450 MHz
Sense	Spectrum inverting
Power supply	
LBUC	19 to 35 V DC or 42 to 60 V DC via transmit IF connector
SSPA	104 to 274 V AC, 47 to 63 Hz
Monitor and control	
LBUC	FSK, RS232, RS485 and contact closure
SSPA	RS232, RS485 and contact closure
Power consumption	
LBUC	
C-Band	60 W maximum
Ku-Band	80 W maximum
SSPA	
C-Band 120 W	740 VA typical
Ku-Band 40 W	450 VA typical

ENVIRONMENTAL

Operating temperature range	-40°C to 55°C
Relative humidity	100%
Cooling	
LBUC	Convection
SSPA	Forced air
Weatherproofing	
LBUC	Sealed to 34 kPa
SSPA	IP66

PHYSICAL

Size	
LBUC	
6705	335 mm L x 182 mm W x 104 mm H
6904	360 mm L x 182 mm W x 104 mm H
SSPA	280 mm L x 355 mm W x 495 mm H
Weight	
LBUC	5.6 kg
SSPA	27 kg
Mounting	
LBUC and SSPA	Combined pole mounting kit

Specifications subject to change without notice or obligation.

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