

Block Up Converter

Medium power C-Band 6700 series

SPECIFICATIONS

RF SPECIFICATIONS

IF input

Frequency range	
Standard band	950 to 1525 MHz
Extended band	950 to 1750 MHz
Impedance	50 Ω
Connector	N female
VSWR	1.5:1 maximum

Gain specification

Gain @ 0 dB attenuator setting	
6720	74 dB nominal
6725	74 dB nominal
6740	77 dB nominal
6760	79 dB nominal
Transmit attenuator	0, 4, 8 and 12 dB settings
Gain flatness	±0.75 dB maximum, 40 MHz ±1.5 dB maximum, full band
Gain stability	
over any 50°C range	±1.0 dB maximum
over -40°C to +55°C	
when frequency set	±1.25 dB maximum
when frequency not set	±2.0 dB maximum

RF output

Frequency range	
Standard band	5.850 to 6.425 GHz
Extended band	5.850 to 6.725 GHz
Connector	CPR137G with 5.0 mm through holes N female optional (except 6760)
VSWR	1.5:1 maximum
Power @ 1 dB GCP	
6720, 20 W	+43.0 dBm minimum
6725, 25 W	+44.0 dBm typical +43.7 dBm minimum
6740, 40 W	+46.0 dBm minimum
6760, 60 W	+47.8 dBm minimum
Carrier to intermodulation ratio	
6720, 6725	-26 dBc, two carriers, each @ 6 dB OPBO from 1 dB GCP
6740, 6760	-25 dBc, two carriers, each @ 6 dB OPBO from 1 dB GCP
Output power meter	
Range	
6720, 6725, 6740	Down to P1dB - 10 dB
6760	Down to P1dB - 15 dB
Absolute accuracy	
when frequency set	±1.0 dB maximum
when frequency not set	±2.0 dB maximum
Relative accuracy	
when frequency set	±0.5 dB maximum
when frequency not set	±1.0 dB maximum
Modes	CW, burst with adjustable threshold

Spurious output

CE compliance	Meets EN 301 443 with 53 dBi antenna gain
Spurious	-60 dBc maximum @ 3 dB OPBO
Harmonics	-70 dBc maximum @ 3 dB OPBO

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 frequencies	
Standard band	7300, 7375 MHz user selectable
Extended band	7300, 7375, 7600, 7675 MHz user selectable
Sense	Spectrum inverting

POWER SUPPLY

Power supply

Input voltage	94 to 275 V AC
Frequency	45 to 65 Hz
Consumption	
6720	240 W maximum, power factor corrected
6725	240 W maximum, power factor corrected
6740	375 W maximum, power factor corrected
6760	580 W maximum, power factor corrected
Connector	Amphenol T3110 000, mating connector supplied

PHYSICAL

Size

6720, 6725, 6740	497 mm L x 182 mm W x 202 mm H
6760	496 mm L x 182 mm W x 216 mm H

Weight

6720, 6725, 6740	11.8 kg
6760	15 kg

Mounting

6720, 6725, 6740, 6760	Boom mounting kit supplied
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MONITOR AND CONTROL

Monitor and control (FSK)

Mode	FSK modulation
Protocol	User selectable
Data format	User selectable
Connector	Multiplexed on the transmit IF
Data transmitter	
Frequency	650 kHz \pm 1%
Deviation	60 kHz \pm 1%
Sense	+60 kHz = mark, -60 kHz = space
Output level	-3 dBm nominal
Start tone time	10 ms minimum
Data receiver	
Nominal frequency	650 kHz
Locking range	\pm 30 kHz
Input sensitivity	-15 dBm minimum

Monitoring and control (digital)

Interfaces	RS232, RS485 (4-wire, 2-wire strapable)
Data format	
RS232	9600 bit/s, 8 bits no parity, 1 stop bit, ASCII protocol
RS485	User selectable format and protocol
Connector	MIL-C-26482 12-14S socket

Monitoring and control functions

Serial interface functions: Power amplifier on, Output power, Temperature, Fault status, Model number, Serial number, Software version, Compensation frequency, Transmit attenuator, Burst threshold, Packet address, Packet protocol

Other monitoring functions: Loss of lock causes alarm contact closure and attenuates RF output by >70 dB. LED indicators for: Power on, Transmit on and BUC fault

ENVIRONMENTAL

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

Specifications subject to change without notice or obligation.
Contact Codan for availability of specific option combinations.

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