

X BAND BUC 150/200W High Power Series

ACTX-X



The ACTX-X series is a family of outdoor RF Block-Up Converters (BUC), designed for X-band satellite communication systems. ACTX-X BUCs are integrated units with power supply, phase locked oscillator, power amplifier, frequency converters and cooling system.

The ACTX-X series BUCs has been tested and calibrated between -20° and $+55^{\circ}\text{C}$, so they assure very good gain stability with temperature. They also include a temperature alarm and power supply shutdown to protect the amplifier from permanent damages in high temperature conditions. Moreover, ACTX-X series allows RS-485/RS-232 communication and TCP/IP and SNMP as option

TRANSMITTER

Input Frequency	950 to 1450 MHz
Input VSWR (50 Ω)	< 1.5:1
Output Frequency	7.9 -8.4 GHz
Output VSWR (50 Ω)	< 1.3:1
Output Sample	-40 \pm 2 dBC
Spectrum Inversion	None

Characteristics @ 25 $^{\circ}\text{C}$	P1dB (min)	Gain	Power Consumption	Size	Weight
ACTX-X150W-E1-V2	51.8dBm	72dB min	1200W	495x265x255mm	24 Kg
ACTX-X200W-E1-V2	53.0dBm	75dB min	1300W	19.5x10.4x10.0in	52.9 lbs

Maximum input level without damage	\pm 10 dBm
Gain flatness over the whole bandwidth	\pm 1.5 dB
Gain flatness over 40MHz	\pm 0.75 dB
Gain Stability over 24 hours	\pm 0.25 dB @ constant temp.
Gain Stability over temperature	\pm 1.5 dB
Attenuation adjustment range	20 dB (0.5dB steps)
Mute	>50 dB
Noise Figure	\leq 15dB @ maximum gain
Output Noise	<-155 dBm/Hz (7.25-7.75GHz)
Spurious	<-60dBc @Pout=P1dB
Intermodulation products	<-25dBc (2 tones Δ f=5MHz for Pout=P1dB-3dB)

Harmonics.....	≤-50dBc
Main frequency related spurious	≤-35 dBc
SSB added spurious	≤-41dBc
Output Phase noise (IESS-308/309 – 8dB)	
100Hz	-70dBc/Hz
1Kz	-78dBc/Hz
10KHz	-88dBc/Hz
100KHz	-105dBc/Hz
External reference (Mux on L-Band input)	10MHz/ 0dBm ± 3dB
Minimum reference to compliant typ. Phase noise (IESS-308/309 – 8dB)	
100Hz	-125dBc/Hz
1Kz	-135dBc/Hz
10KHz	-145dBc/Hz

ENVIRONMENT

Storage Temperature	-40 to +85°C
Operating Temperature	-20 to +60°C
Relative humidity	up to 95%
Operating altitude	up to 3500m

PHYSICAL

AC Input Voltage	85-264VAC (47-63Hz)
Interfaces	
TX input (L Band+ Ext. Ref)	Type N(F) 50Ω
Sample output (X-band)	Type N(F) 50Ω
TX output (X-band)	WR112 CPRG
M&C (RS232/485).....	62IN12E12-14S-4-622
M&C (IP/SNMP)	62IN12E12-8S-4-622
Power supply.....	62IN12E12-3P-4-622
Cooling system	Forced air integrated
Finish.....	RAL9003 (white)

OPTIONS

HP1	Internal Reference (Automatic Ext. On presence)
HP2	Op. Temp. -40 to +55°C
HP3	Ethernet Interface (TCP/IP)
HP4	SNMP Agent
HPC	Custom design

Based on ACORDE DATASHEET acmb-x_hp Ed.14 from 05/10/16

