

Ka BAND BUC 4-8W GaN Low Power Series

ACTX-Ka4/8W-Ex-V5



ACTX-Ka series is designed for Ka-band satellite communication systems. These transmitters are integrated with power supply, phase locked oscillator, power amplifier and frequency converter. Temperature alarm and power supply shutdown at high temperature conditions are integrated to protect them from permanent damages. Each BUC is tested over specified temperature range, assuring very good gain stability and high reliability.

TRANSMITTER SPECIFICATIONS

Input Frequency	950 to 2000 MHz (see options)
Input VSWR (50Ω)	< 1.5:1
Output Frequency	27.5 to 31 GHz (see options)
Output VSWR (50Ω)	< 2.0:1
Spectrum Inversion	None

Characteristics @ 25°C	Psat (typ)	Plin (min)	Gain	Power Consumption	Size (LxWxH)	Weight
ACTX-Ka4W-Ex-V5	36.0dBm	33.0dBm	65dB min	35W (Plin)	195x135x50mm 7.7x5.3x2 in	2.0 Kg 4.4lbs
ACTX-Ka8W-Ex-V5	39.0dBm	36.0dBm	60dB min	45W (Plin)		

Gain Flatness over the whole channel bandwidth	±2 dB
Gain flatness over any 40MHz	±0.5 dB
Gain Stability over 24 hours	±0.25 dB
Gain Stability over temperature	±1.5 dB over the whole range
Attenuation adjustment range	30 dB (0.25dB steps)
Mute	>60 dB
Output noise Power Density	<-94dBm/Hz (TX) <-150dBm/Hz (RX)
Spurious @ Plin	<-60 dBc
Spectral Regrowth @Plin	<-30 dBc
Third Order intermodulation products @ Plin	QPSK at 1.0 x rate offset from carrier <-25dBc (Δf=5MHz relative to combined Power of 2 carriers)

Output Phase noise (IESS-308/309 – 5dB)

100Hz	-65dBc/Hz
1Kz	-75dBc/Hz
10KHz	-85dBc/Hz
100KHz	-95dBc/Hz
External reference (Mux on L-Band input)	10MHz/ 0dBm ± 5dB

ENVIRONMENT

Storage Temperature	-40 to +85°C
Operating Temperature	-20 to +60°C
Relative humidity	up to 100%
Operating altitude	up to 4500m

PHYSICAL

DC Input Voltage	20-60VDC
Interfaces	
TX input (L Band+DC+Ext. Ref)	Type N(F) 50Ω
TX output (Ka-band)	WR28 grooved
M&C	MS3112E12-14S
Finish	RAL9003 (white)

OPTIONS

LP1	Internal reference (Automatic external selection on presence)
LP3	Op. Temp. -40 to +60°C (gain variation ±2 dB)
LP4	Ethernet Interface (TCP/IP)
LP5	SNMP Agent
LP6	Dedicated power supply connector (MS3112E8-4S)

Ka-band output	L-band input	LO frequency	Standard frequency option
29.5 to 30.0 GHz	950 to 1450 MHz	28.55 GHz	ACTX-KaxW-E2-V5
30.0 to 31.0 GHz	950 to 1450 MHz	29.05 GHz	ACTX-KaxW-E6-V5
30.0 to 31.0 GHz	1000 to 2000 MHz	29.00 GHz	ACTX-KaxW-E66-V5

Based on ACORDE DATASHEET actx-ka_Ip Ed.10 from 05/10/16

