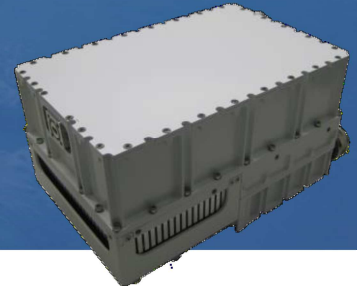


Ka BAND BUC 20W GaN Dual Band Medium Power Series

ACTX-Ka20W-E31-V4



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. Additionally, output power detection is available through M&C communication protocol.

TRANSMITTER

| | |
|--------------------------|-------------------------------|
| Input Frequency | 950 to 2000 MHz (see options) |
| Input VSWR (50Ω) | < 1.5:1 |
| Output Frequency | 29 to 31 GHz |
| Output VSWR (50Ω) | < 1.3:1 |
| Spectrum Inversion | None |

| Characteristics @ 25°C | Psat (typ) | Plin (min) | Gain | Power Consumption | Size (LxWxH) | Weight |
|------------------------|------------|------------|----------|-------------------|---------------------------------|------------------|
| ACTX-Ka20W-E31-V4 | 43.0dBm | 40.0dBm | 65dB min | 150W (Plin) | 200x130x100mm 7.9x5.1x3.9 in | 3.5 Kg 7.7lbs |

| | |
|------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| 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 | <-85dBm/Hz (TX) <-150dBm/Hz (RX) |
| Output power detection accuracy | ±1.0dB |
| 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 | 48VDC |
| Interfaces | |
| TX input (L Band+ Ext. Ref) | Type N(F) 50Ω |
| TX output (Ka-band) | WR28 grooved |
| M&C | D38999/20FC35SN |
| Power supply..... | D38999/20FB98PN |
| Finish..... | RAL9003 (white) |

OPTIONS

| | |
|-----------|------------------------------------------------------------------|
| MP1 | AC Power Supply 85-265VAC (200x130x110mm) |
| MP2 | Internal reference (Automatic external selection on presence) |
| MP3 | Op. Temp. -40 to +60°C (gain variation ±2 dB) |
| MP4 | Ethernet Interface (TCP/IP) |
| MP5 | SNMP Agent |

| Ka-band output | L-band input | LO frequency | Standard frequency option |
|--------------------------------------|------------------|------------------------|---------------------------|
| 29.5 to 30.0 GHz 30.0 to 31.0 GHz | 950 to 1450 MHz | 28.05 GHz 29.05 GHz | ACTX-Ka20W-E31-V4-0A |
| 29.5 to 30.0 GHz 30.0 to 31.0 GHz | 1000 to 2000 MHz | 28.00 GHz 29.00 GHz | ACTX-Ka20W-E31-V4-0B |

Based on ACORDE DATASHEET actxd-ka_mp Ed.03 from 05/10/16

