

ACCVR-KaL-Ex-V4

Dual Ka-band BDC Nyx Series hubmount simultaneous reception



The ACCVR-KaL family of BDCs is designed for the most challenging Ka-band professional & military satellite communication systems (ground, SOTP, SOTM, maritime, etc.).

Latest technology is applied to obtain the best power efficiency, phase noise, gain stability and linear power according to MIL-STD-188-164C. The ACCVR-KaL family is a high reliability solution designed for harsh environmental conditions, with every single production unit fully tested in an environmental chamber and delivered with a complete factory acceptance test report.

- ✘ Dual simultaneous L-band output ports
- ✘ DC supply operation
- ✘ External and internal reference capabilities
- ✘ Extended temperature range -30 °C to +60 °C
- ✘ M&C with alarm relay contacts

NYX

Goddess of night and dusk, she descends the sun daily to unveil the darkness of the night. Our BDCs, like NYX, downlink the satellite frequency to be received and understood by the modem.

Receiver

Input frequency	27.0 to 30.0 GHz
Input Ka-band VSWR (50 Ω)	< 1.5:1
Output frequency	950 to 2450 MHz
Output L-band VSWR (50 Ω)	< 1.3:1
Spectrum inversion	None
Max. input level without damage	0 dBm
Gain @ mid band	30 ± 2 dB
Gain adjustment range	30 dB with 0.25 steps
Gain flatness	±2.0 dB over whole BW ±0.5 dB over 40 MHz
Gain stability (24 hours)	±0.25 dB @ constant T
Gain variation over temperature	±1.5 dB
Noise figure @ min attenuation	< 15 dB
Image rejection	> 45 dB
PI dB	> +10 dBm
In-band Spurious @ P _{OUT} = 0 dBm	< -50 dBc

Local Oscillator

Output phase noise	Maximum	Typical
10 Hz	-45 dBc/Hz	-50 dBc/Hz
100 Hz	-70 dBc/Hz	-75 dBc/Hz
1 kHz	-85 dBc/Hz	-90 dBc/Hz
10 kHz	-90 dBc/Hz	-95 dBc/Hz
100 kHz	-100 dBc/Hz	-105 dBc/Hz
1 MHz	-120 dBc/Hz	-125 dBc/Hz
External reference (Auto selection on presence)	10 MHz	
External reference level	0 dBm ± 5 dB	
Internal reference stability	±2 ppb/day	

Environmental

Storage temperature	-40 °C to +85 °C
Operating temperature	-30 °C to +60 °C
Relative humidity	up to 100%
Operating altitude	up to 4500 m

Mechanical

Size (LxWxH)	180 x 100 x 40 mm 7.1 x 3.9 x 1.6 in
Weight	1150 g 2.5 lbs
Finish	RAL 9003 (White)

Interfaces

All mating connectors provided

RX input (Ka-band)	Type K(F) 50 Ω
RX outputs (L-band)	Type N(F) 50 Ω
External reference	Type SMA(F) 50 Ω
Power supply & alarm	62IN12E8-4S-4-622

Power Supply

DC input voltage	15-24 V _{DC}
Consumption @ Plin	11 W @ steady state 13 W @ warm-up

Order information

Part-number	Input	Output	LO frequency
ACCVR-KaL-E28-V4	27.5 - 29.0 GHz 28.5 - 30.0 GHz	950 - 2450 MHz 950 - 2450 MHz	26.55 GHz @ Output 1 27.55 GHz @ Output 2
ACCVR-KaL-E29-V4	27.0 - 28.5 GHz 28.0 - 29.5 GHz	950 - 2450 MHz 950 - 2450 MHz	26.05 GHz @ Output 1 27.05 GHz @ Output 2

Any other frequency band or custom specification available under request. Please, contact factory. Specifications are subject to change without notice.

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