



ITS ELECTRONICS INC.

MICROWAVE COMPONENTS AND SUBSYSTEMS

ISO 9001:2008 AND
SAE AS9100C CERTIFIED

50W Ka-Band Solid State Power Block Up-Converter



MODEL: UC-30A031A0-4750

PERFORMANCE

TRANSFER CHARACTERISTICS:

Gain Range	60.0±3.0 dB
Gain Variation	±1.5 dB ptp over temperature
Gain Flatness	±1.5 dB ptp over full bandwidth
P1dB	47.0 dBm (50W)
Plinear	44.0 dBm
IMD3 @ Plinear	-25.0 dBc
Spectral Regrowth, QPSK	-30.0 dBc @ 1.5XS.R. @ Plinear
Group Delay Variation	<3 ns ptp max. over 30MHz
Mute	60.0 dB minimum
Spurious	-60.0 dBc
LO Leakage	-30 dBm
Phase Noise	Intelsat 308/309 from 10Hz to 1MHz

INTERFACE

IF INPUT CHARACTERISTICS:

Operating Frequency	1.0 to 2.0 GHz
Return Loss (50 Ohm)	14 dB
External Reference	10 MHz

RF OUTPUT CHARACTERISTICS:

Operating Frequency	30.0 to 31.0 GHz
Return Loss	18 dB

REMOTE MONITOR AND CONTROL:

Interface	10/100 Base-T Ethernet
Discrete Mute	TTL
Functions	Mute PLL/DRO Lock Temperature 20 dB Control Range Output Power Monitor Summary Faults

POWER SUPPLY:

Voltage	90 to 264 VAC
Consumption	750 VA

CONNECTORS:

RF Input	N Female
RF Output	WR-28
Monitor & Control	Ethernet, RJ45
AC Power Input	MIL-DTL-26482
Discrete Mute	MIL-DTL-26482

INTERNAL REFERENCE CHARACTERISTICS:

The SSPB automatically operates from its internal reference when the external reference is not present.

Frequency Stability	±5 x 10 ⁻¹⁰ /day
Frequency Variation	±5 x 10 ⁻⁸ over -40 to 60 °C

EXTERNAL REFERENCE REQUIREMENT:

Input Phase Noise	-120 dBc/Hz @ 10 Hz -140 dBc/Hz @ 100 Hz -145 dBc/Hz @ 1 kHz -150 dBc/Hz @ ≥10 kHz
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MECHANICAL

Dimensions (LxWxH)	18.125" X 14.875" X 6.3"
Weight	34 lbs.

ENVIRONMENTAL

OPERATING:

Temperature	-40 to +60 °C
Humidity	Up to 100% Condensing
Altitude	10,000 Feet AMSL Maximum

NON-OPERATING:

Temperature	-40 to +70 °C
Altitude	55,000 Feet AMSL Maximum
Shock and Vibration	Normal handling by commercial carriers

Product available from 27.0 to 31.0 GHz in 1000MHz bandwidth.

Special request, please contact info@itselectronics.com

Specifications are Subject to Change without Notice

E & O E

Response, Innovation, Craftsmanship

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