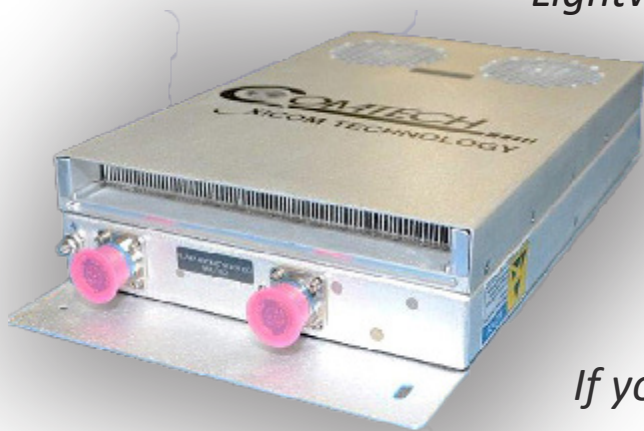


Falcon 50Ka

50W Ka-band GaN Airborne Cabin Internal Solid-State Amplifier

POWERFUL:	<i>25W linear power (single carrier)</i>
EFFICIENT:	<i>250W AC power draw at linear power</i>
LIGHTWEIGHT:	<i>16 lbs (7.3 kg)</i>
COMPACT:	<i>9.06 x 18.0 x 3.25 inch ARINC package</i>
RELIABLE:	<i>Certified to DO-160 Category A1</i>



Lightweight, efficient reliable Ka-band SSPA and block upconverter that provides 25W of linear power for satcom uplinks.

High efficiency GaN solid-state design enables big power from a box while still handling the toughest environments.

If you need a sleek, powerful BUC to speed up your compact terminal - you need a Falcon™.



Go to xicomtech.com to see our full Falcon product line for solutions across the spectrum.

Falcon 50Ka

50W Ka-band GaN Airborne SSA

Frequency and Input Levels

RF Output Frequency	1 GHz selectable in 27.5 to 30.0 GHz (27.5-28.5, 28.25-29.25, 29.0-30.0 GHz)
IF Input Frequency	950 to 1950 MHz
Input Level, No Damage	+5 dBm max
LO Reference Frequency	External 50 MHz
LO Reference Level	0 dBm $\pm$ 7 dB
IF/REF Input Impedance	50 ohms

Output RF Power and Linearity

Eq. Saturated Power, P_{SAT}	50W (47 dBm)
Maximum CW Power, P_{MAX}	32W (45 dBm)
Linear Power, P_{LIN} (min)	25W (44 dBm)
Spectral Regrowth @ P_{LIN} (QPSK, OQPSK, @ > 1SR offset)	26 dBc max @
Intermodulation Products wrt sum of 2 equal carriers	-25 dBc max
AM to PM Conversion @ P_{LIN}	2.0°/dB max

GAIN

Small Signal (typical)	64 dB
Gain Attenuation Range	20 dB in 0.1 dB steps
Gain Variation (over 10 MHz)	0.8 dB p-p max
Gain Variation (over 120 MHz)	2.2 dB p-p max
Gain Variation (over 1 GHz)	3.4 dB p-p max
Gain Stability, over 24 hours	1.0 dB p-p max
Gain Variation over Temp	2.0 dB p-p max

Noise and Spurious

Noise Power Transmit Band	-60 dBW/4 kHz
Noise Power Receive Band	-140 dBW/4 kHz
AC Line Spurious fundamental	-30 dBc
sum of all spurs	-45 dBc
Harmonics	-60 dBc
Output Spurious @ P_{LIN} (excludes 1 MHz band)	-55 dBc

Phase Noise

Phase Noise (max)	
100 Hz	-62 dBc/Hz
1 kHz	-72 dBc/Hz
10 kHz	-82 dBc/Hz
100 kHz	-92 dBc/Hz
1 MHz	-102 dBc/Hz
Reference Phase Noise (max)	
10 Hz	-81 dBc/Hz
100 Hz	-109 dBc/Hz
1 kHz	-133 dBc/Hz

Phase Linearity and VSWR

Transmit Phase Linearity up to P_{LIN}	
over any 2 MHz	± 0.1 radian
over any 36 MHz	± 0.25 radian
over any 72 MHz	± 0.35 radian
over any 90 MHz	± 0.45 radian
over any 120 MHz	± 0.55 radian
Input VSWR	1.5:1
Output VSWR	1.5:1

Prime Power/Environment/Interfaces

100-122 VAC, 400 Hz nominal	250W @ P_{LIN}
Non Operating Temp	-55° to +85°C (Cat A1)
Operating Temp	-15° to +55°C (Cat A1)
Environmental	Per DO-160G (Cat A1)
Shock	Per DO-160G (Cat B+E)
Vibration	Per DO-160G (Cat R, H)
M&C Interface	Ethernet SNMP2c/serial RS-422

Weight and Dimensions

Weight	16 lb (7.3 kg)
Dimensions	9.06" x 18.0" x 3.25" (23.0cm x 45.7cm x 8.3cm)

For additional information visit: www.xicomtech.com
email: sales@xicomtech.com • Phone: +1.408.213.3000