

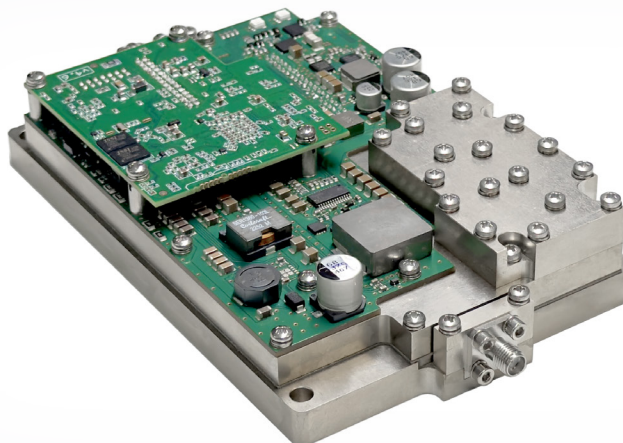
# ASX-80W (Non-IP Rated)



80W X-Band BUC High Temp +70C

## FEATURES:

- Hyper-Light Package Design Only 1.4 lbs (0.64 kg)
- Extreme Stability, Reliability and Performance
- Built-in HPA Overdrive Circuit Protection
- Built-in Optimized Linearization
- Built-in Ultra Receive Band Reject Filter
- Built-in Anti Vibration Technology
- Extreme GaN Linearity and Efficiency
- Triple protection sealed waveguide output
- Fully Assembled, and Rigorously Tested in the USA
- 3-Year Warranty



## DESIGN OVERVIEW:

The "SLIM FAN-LESS" Series with non-IP rated housing 7.9 - 8.4 GHz 80W X-band BUCs are the next generation of the world's most compact and efficient feed-horn & boom-arm mountable BUCs in the industry, weighing only 1.4 lbs (0.64 kg) and working at high temp up to 70°C.

## PERFORMANCE SPECIFICATIONS

Operating RF Frequency	7.9 - 8.4 GHz
Operating IF frequency	950 - 1450 MHz
Local Oscillator	6.95 GHz
Rated Output Power PSAT	80W 49.0 dBm
Linear Power SR @-26 dBc PLIN	60W 47.8 dBm
IMD3 (two tones) 3 dB Back Off	-25 dBc max. 2 signal 5 MHz apart at P-LINEAR
Spectral Regrowth at P-LINEAR (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated power)	-30 dBc
10 MHz External Ref. (Internal High Stability Optional)	10 MHz Ref. Level: 0 dBm +/- 5 dBm Internal Ref. Stability +/- 0.1 ppm

## PROTECTION

VOLTAGE	OVERTEMP	VSWR
SMART ALARMS IN THE M&C	MICROPHONIC	CURRENT

## COMPLIANCE INFORMATION

MIL-STD-188/164C	DO-160G	ROHS, REACH, WEEE
MIL-STD-461E		

## SPURIOUS & PHASE NOISE

In-Band/Out-band Spurious	-60 dBc max.	
Group Delay	Ripple 1 nsec point to point max.	
AM/PM Conversion	1.0°/dB max. at 3 dB output backoff	
Noise Power Density (TX)	-85 dBm/Hz	
Noise Power Density (RX)	-155 dBm/Hz	
Phase Noise (Up Converter) (Ext. Ref.)	-55 dBc/Hz @ 10 Hz	-115 dBc/Hz
	-65 dBc/Hz @ 100 Hz	-135 dBc/Hz
	-75 dBc/Hz @ 1 kHz	-150 dBc/Hz
	-85 dBc/Hz @ 10 kHz	-155 dBc/Hz
	-95 dBc/Hz @ 100 kHz	-160 dBc/Hz

## POWER CONSUMPTION

80W 49.0 dBm PSAT	225W
60W 47.8 dBm PLIN	165W

## GAIN

Gain (Temperature Compensated)	66 dB (min) 70 dB (typ.)
Gain Flatness 1 MHz	± 0.1 dB
Gain Flatness 36 MHz	± 0.5 dB
Gain Flatness Full Band	± 1.5 dB

## ENVIRONMENTAL SPECIFICATIONS

Environmental MIL-STD	Compliant with WGS, MIL-STD-810E
Vibration MIL-STD	STD-188-164, and RTCA/DO-160G
Operating Temperature Range	- 40° C to + 70° C
Storage Temperature Range	- 60° C to + 85° C
Humidity	100% Condensing, IP67 Rated
Shock	20 g peak, 11 msec, 1/2 sine
Altitude	21,500 ft, 6,500 m
Built-in Receive Reject Filter	Suppression by +60 dB (min)

## MECHANICAL SPECIFICATIONS

Dimensions	5.9" x 3.74" x 1.22" (150 x 95 x 31 mm) Without Connectors
Weight	1.4 lbs (0.64 kg)

## PART NUMBERING SYSTEM

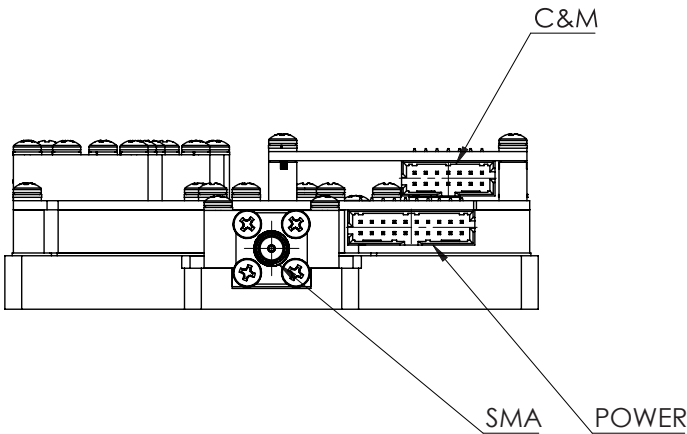
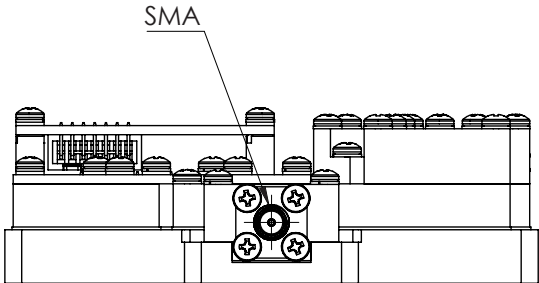
- AS - "SLIM FAN-LESS" MODEL SERIES  
X - X-Band 7.9 - 8.4 GHz  
20 | 30 | 40 | 60 | 80 | 100 - Rated Power in Watts  
N | F - 50 Ohm or 75 Ohm IF Input Connector Type  
M - Full M&C Option RS232/485, SNMP, Ethernet  
A - AC Power 85-260VAC (increases size and weight)  
R - 10 MHz Ref. Auto Sense | Internal Reference  
K - FSK Option  
U - Universal Mounting Bracket  
J - Weatherproof DC/RJ45 Cable Dongle  
C xxxx - Custom RAL Color Code  
L - Custom Language  
P - Custom Part number  
B - Custom Label  
G - Custom Logo  
T - Redundancy Ready  
H - High Gain (+79 dB - 82 dB)  
W - Weatherproof Pelican Style Case  
O - Other Custom Option  
X - Custom Cable

## INPUT|OUTPUT INTERFACE

IF Connector	SMA (50 Ohm)
Universal Prime Power via IF or MS/M&C Connector (7.0 A Current Limit Protection Through Coax)	+ 22 - 55 VDC
Output VSWR	1.5:1
Output Interface	SMA
Input VSWR	1.5:1

## M&C INTERFACE

Advanced Monitor & Control	Ethernet Web Page Based, SNMP, RS232/485
ALARMS	PLL LOCK, HPA, VSWR, MUTE, TX
Stealth PLIN Operation Mode	LED Shut-Off
Administrative Interface (Optional)	OpenBMIP through RS-422



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