



80W Insat 6.725-7.025 GHz C-Band BUC

KEY FEATURES

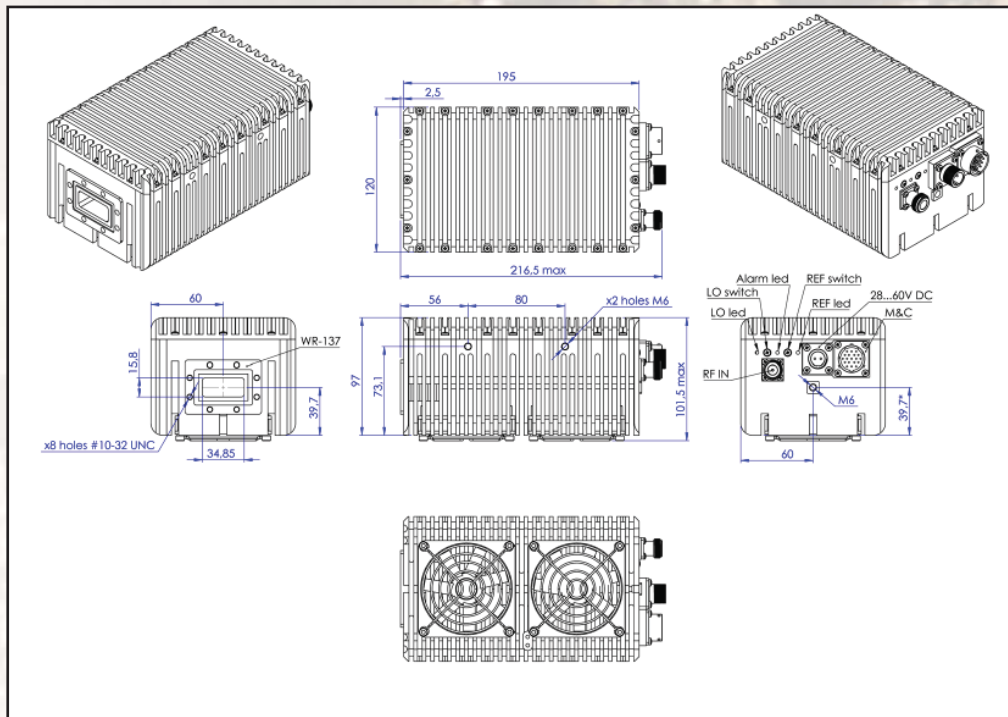
- ◆ Output frequency 6.725-7.025 GHz
- ◆ Based on GaN technology which enables high efficiency, low power consumption and high reliability.
- ◆ L.O. 5.76 GHz
- ◆ Incomparable low power consumption (350W max)
- ◆ Advanced M&C interface - combined RS-232/485, Ethernet (HTTP and SNMP ver. 2 and 3) and optional FSK
- ◆ Auto-ranging 36 - 60 VDC powering option
- ◆ Digital temperature compensation
- ◆ Power and lock status LED
- ◆ Field-exchangeable (F/N) IF connector
- ◆ Internal 10MHz high stability reference (optional)
- ◆ RoHS compliant

ABC80IC / ABC80ICF



This smallest and lightest 80W L-To C-Band Block Up Converter is based on GaN technology. It is designed to be mounted on the feed horn. The unit covers C-Band sub-band Insat (6.725-7.025 GHz)

Mechanical Drawing





80W Insat 6.725-7.025 GHz C-Band BUC

TECHNICAL SPECIFICATIONS

RF frequency	6.725 to 7.025 GHz	
Local oscillator	5.76 GHz	
IF frequency	965 to 1,265 MHz	
Output power	80W (+49 dBm min.) 45.5W (+46.5 dBm min.) P-Linear	
IF connector	N-type or F-type (field-exchangeable)	
Power supply : auto-ranging via MS connector	+36 ~ +60 VDC, 350W max.	
Output interface	CPR 137 G	
Gain	67 dB min., 75 dB max. Adjustable in 1dB steps, Gain range 20dB	
IMD3 (two tones)	-26 dBc max. 2 signal 5 MHz apart at P-LINEAR	
L.O. leakage	-45 dBm max.	
Spurious	-50 dBc max.	
Spectral regrowth (QPSK at 1.5x and OQPSK at 1.0x symbol rate offset with 2dB back-off from rated output power)	-30 dBc	
Requirement for external reference:	frequency	via IF cable 10 MHz (sine-wave)
	input power	-5 to +5 dBm @ input port
TX Gain variation	± 0.5 dB over 40 MHz	
TX Gain stability over temperature range	± 1.8 dB over full band ± 1.5 dB typ., ± 1.8 dB max.	
Phase noise	-55 dBc/Hz max. @ 10 Hz	
(Exceeds Intelsat's standard IESS308/309)	-65 dBc/Hz max. @ 100 Hz	
	-75 dBc/Hz max. @ 1 KHz	
	-85 dBc/Hz max. @ 10 KHz	
	-95 dBc/Hz max. @ 100 KHz	
	-115 dBc/Hz max. @ 1 MHz	
Noise power density	Transmit	-66 dBm/Hz (max.)
	Receive	-157 dBm/Hz (max.)
FSK	Multiplexed on TX IFL, compatible with Compech and Paradigm	
M&C Interface	RS-232, RS-485 and Ethernet (HTTP and SNMP ver.2 and 3)	
Noise figure	15 dB max.	
Input V.S.W.R.	1.5 : 1 max.	
Output V.S.W.R.	1.5 : 1 max.	
Mute	Shut off the HPA if L.O. unlocked	
Status LED		
Amplifier	RED	Summary alarm
	GREEN	All OK
L.O.	GREEN	All OK L.O. is set to 5.76 GHz
10MHz	GREEN	External 10MHz reference
	GREEN blinking	Internal 10MHz reference
	RED	No 10MHz reference detected
Temperature range (ambient)	-40 deg C to +55 deg C	
operating	-55 deg C to +85 deg C	
storage		
Vibration and shock	Complies with MIL-STD-810E	
Altitude	Up to 23,000 feet	
IP rating	IP67	
Dimensions & housing	195 (L) x 120 (W) x 101.5 (H) mm 7.67" (L) x 4.72" (W) x 3.99" (H)	
Weight	3.36 kg (7.40 lbs) max.	