

AM933X Series C Band Block Up Converter (BUC)

Key Features

- ❑ L-Band Interface
- ❑ High reliability
- ❑ High frequency stability & excellent gain flatness
- ❑ Low phase noise, harmonics and spurious
- ❑ Automatic shut down upon failure
- ❑ Simple installation, Trouble free maintenance
- ❑ Wide operating temperature range



Applications

- ❑ Wide area telephony
- ❑ Video conferencing
- ❑ Private data network
- ❑ SCPC, DAMA, TDMA networks

Amplus AM933x series of L Band Interface C Band Block Up Converter (BUC) offers a wide variety of choices to configure uplink terminals in single or redundant configuration. They come in output power from 2W to 250W, all in a Stand Alone unit design and are available in Intelsat C, Palapa C, Insat C and Full C frequency bands. Mounting on most antennas is easy and requires very little additional support accessories.

The AM933x BUCs are cost effective and high performance transmitters. They are field proven under harsh environmental conditions.

Amplus BUCs accept composite L-Band signal, External 10MHz reference signal, DC power and FSK signal (optional) through single IFL cable.

The "Lower Power Series" (2W, 5W) is designed to have simple operation, low cost, light weight with output connection as a waveguide flange which can be mounted directly on the VSAT antenna feed or OMT. They come with gain adjustment dip switch to enable the BUCs to be used with long IF cable or high loss cable.

The "Medium & Higher Power Series" BUC can be powered by AC supply of 220-240 or 100-120AC or DC supply of 48V, via a separate connector. The AC cable comes with the Transient protection capability which protects the BUCs unit directly from high voltage/current transient. They are designed with intelligent M&C capability. Setup and monitoring & control can be done remotely via RS232/RS485. The set up of the BUC can also be done with our handheld terminal through RS232 connection. We also offer optional feature of FSK for the user to monitor and control the units at the Satellite Modem via IFL cable.

All BUCs are designed, built and tested in Amplus' ISO9001, ISO14001, and OHSAS18001 certified manufacturing facility. OCXO (optional for internal reference) is tuned & monitored for stabilization before being mounted to the units. The BUCs are subjected to 3 days burn in and their performance are monitored over the temperature range. Amplus delivers quality product with impressive lead time and have manufacturing capacity to fulfil large quantity requirement.

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AM933X Series	L Band Input Freq(MHz)	TX RF Output Frequency (MHz)	LO Freq (MHz)	Power @P1dB (Watt)	Power @P1dB (dBm)	Gain (dB)	Dimension LxWxH (mm)	Weight (kg)	Power Voltage	Power Consumption	L Band IF Input connector	C Band TX RF Output connector	Product Highlight				
Low Power series	950 ~ 1525 950 ~ 1250 965 ~ 1265 950 ~ 1825	Intelsat (5850 ~ 6425) Palapa (6425 ~ 6725) Insat (6725 ~ 7025) Full C (5850 ~ 6725)	7375 7675 5760 7675	2	33	70	250x150x60	2.6	15 - 24VDC	35W	N (F)	N (F) or WR137	*Adjustable gain via dip switch * Low Cost, Low Power, Light Weight * Mount directly to antenna				
5				37	40W												
10				40.0	125W												
Medium Power Series				950 ~ 1525 950 ~ 1250 965 ~ 1265 950 ~ 1825	Intelsat (5850 ~ 6425) Palapa (6425 ~ 6725) Insat (6725 ~ 7025) Full C (5850 ~ 6725)	7375 7675 5760 7675	20	43.0	73	320x235x180		8	110VAC / 220VAC / 48VDC	200W	N (F)	N (F)	* Single Package * Gain Adjustment @ 0.5dB step * Redundancy Ready * Handheld Optional * M&C RS232/485 or TCP/IP (optional) * FSK optional for 5W to 250W * AC cable c/w Transient protection * Shut Down PA when temp >80 °C * Internal reference (optional)
							25	44.0						220W			
							40	46.0	350W								
							50	47.0	400W								
							60	47.8	450W								
							80	49.0	630W								
							100	50.0	700W								
	150	51.8	900W														
200	53.0	1200W															
High Power Series	* Other frequencies options available			250	54.0	78	600x450x335	38	110 / 220VAC	1500W	WR137 CPRG-F flange						

Electrical Characteristics	Technical Specification	
Input Frequency	L Band (as table above)	
Output Frequency	C Band (as table above)	
IF Input VSWR (Interface)	1.5 : 1 max (N -F)	
RF Output VSWR (Interface)	1.5:1 max (N-F or WR137)	
Gain Flatness	±0.75dB (over IF band, 40MHz) , ±1.5dB (over RF band)	
Gain Stability	±1.50dB (-40 to 55 °C)	
Frequency Stability	± 0.5ppb/day (internal reference)	
Inter-modulation	-27dBc max @ 3dB Output Power back off	
Second Harmonic /Spurious	-55dBc	
Phase Noise	@100Hz	-63dBc/Hz
	@1kHz	-73dBc/Hz
	@10kHz	-83dBc/Hz
	@100kHz	-93dBc/Hz
Input Reference	Frequency Ref	10MHz @ -5 ~ +5 dBm
	Frequency Mode	External (Internal Optional)
	Frequency stability	Same as External Ref

General Characteristics		Technical Specification	
Environmental	Temperature (operating)	-40 to 55 °C	
	Temperature (storage)	-40 to 85 °C	
	Humidity	0 to 100%	
Monitor & Control Function	Monitor	Monitor BUC Thru PC Terminal (RS232/RS485/TCP-IP)	Monitor/Control BUC Thru IFL via Modem with FSK Option
		1. Lock/Unlock status	1. Lock/Unlock status
	Control	2. Temperature Reading	2. Temperature Reading
		3. RF output power Reading	3. RF output power Reading
		4. Reading from Modem L Band frequency	4. Reading from Modem L Band frequency
1. SSPA On /off	1. SSPA On /off		
2. Gain adjustment			

Specifications are subject to change without notice

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