

more power  
for your  
BUC



## HIGH POWER BUCs FROM MITEC

**Mitec, a global provider of RF components and systems to telecom and satcom markets, is cranking up the power.**

Choose one of our high power block up-converters for L to Ku and L to C band and you'll receive a value priced solution, when you need it, where you need it, with everything you need. The fact is Mitec has been building and supporting carrier-grade solutions since 1973. Fast delivery, full documentation, immediate product support, engineered solutions—that's Mitec.

**Get the power. Get Mitec.**

### CONTACT US

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www.servsat.com  
Phone: 770-757-1767



# High power block up-converters

**L to Ku Band 8-200W**  
**L to C Band 10-200W**

Mitec's products have more than a quarter century of proven field experience, demonstrating their unmatched dependability and reliability day after day. This level of dependability can be found in our line of high power block up-converters. Uniquely designed to be a high quality but cost effective solution for the VSAT market, this line of high power BUCs sets the standard for the satellite industry.

The Mitec series of high power BUCs are designed for use primarily in VSAT applications. Other frequency ranges are also available to customer specification.

These units include an L-band up-converter powered by 24 VDC along with L-Band input and 10 MHz reference all in one cable. There is also a high power booster with AC or DC supply and a customizable Monitor and Control interface.



## Input IF band for the L to KU Band BUC:

- 950 to 1450 MHz other frequency ranges available



## Input IF band for the L to C Band BUC:

- 950 to 1525 MHz other frequency ranges available





## Key features

- Frequency range options available
- Can be provided with 10MHz and/or 24VDC option
- Redundancy option for 1:1 configuration available for all power levels
- RS485, RS232, RS422 or Analog M&C interface
- High thermal dissipation efficiency resulting in “Best in Class” Mean Time Before Failure (MTBF)
- Summary alarm
- Over temperature shutdown
- RF power detection
- Mute control
- RF monitor



### Output RF frequency in standard KU band for the L to KU Band:

- 14.0 to 14.5 GHz other frequency ranges available (13.75 to 14.25 GHz)



### Output RF frequency in standard C band for the L to C Band:

- 5.85 to 6.425 GHz other frequency ranges available (6.7 to 7.0 GHz and 6.4 to 6.7 GHz)

**Electrical Characteristics**
**Specifications (typical)**

	L to KU Band BUC 8-200W	L to C Band BUC 10-200W
Input Frequency range – IF	950 – 1450 MHz	950 – 1525 MHz
Output Frequency range – RF	14.0 – 14.5 GHz (13.75-14.25 GHz optional)	5.85 – 6.425 GHz (other options are available)
System Gain	70dB nominal	
Gain Flatness over full band	± 1.0 dB nom.	
Gain variation	± 2.5 dB over operating temperature range	± 1.5 dB over operating temperature range
Input/Output Return loss	18 dB min.	
Spurious at rated power	- 50 dBc max.	
Third order IMD (2 equal tones 5 MHz apart)	- 25 dBc max. @ 3 dB back off SCL 6 dB back off from P1dB	
<b>Phase Noise</b>		
@ 300 Hz offset	- 60 dBc/Hz	
@ 1 KHz offset	- 70 dBc/Hz	
@ 10 KHz offset	- 80 dBc/Hz	
@ 100 KHz offset	- 90 dBc/Hz	
@ 1 MHz offset	- 100 dBc/Hz	
Supply Voltage for BUC	24 VDC & 10 MHz (other options available)	
For Booster	110/220 VAC (47-63 Hz) Auto Ranging (48 VDC optional)	

**Mechanical Characteristics**
**Interfaces (Basic)**

IF input	Type N (F), (F-Type Optional)	
RF output	WR75 (other options available)	CPR 137 (other options available)
M&C – Analogue of RS-485	Military Specification Weatherized Connector	
Power	Military Specification Weatherized Connector	
Operating Temperature	- 40° C to + 55° C	
Storage	- 55° C to + 85° C	
Humidity	100%, considering rain 2 inches per hour	
Altitude	10000 feet AMSL	

**Interfaces (Optional)**

RF output sample optional	Type N (F)
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**L to KU Band BUC 8-200W**

Model #	Output Power @ P1dB min (Watts/dBm)	Weight (KG/LBS)	Dimensions (inches)	Power Consumption For Booster (Watts)
WTX-14014539-70-ES-XX	8/39	7/15	12x10x8	120
WTX-14014540-70-ES-XX	10/40	7/15	12x10x8	150
WTX-14014541-70-ES-XX	12/41	7/15	12x10x8	170
WTX-14014542-70-ES-XX	16/42	11/25	13x12x8	250
WTX-14014543-70-ES-XX	20/43	11/25	13x12x8	300
WTX-14014544-70-ES-XX	25/44	11/25	13x12x8	400
WTX-14014545-70-ES-XX	30/45	11/25	13x12x8	500
WTX-14014546-70-ES-XX	40/46	15/34	16x13x8	600
WTX-14014547-70-ES-XX	50/47	15/34	16x13x8	700
WTX-14014549-75-ES-XX	80/49	33/72	21x15x12	1200 - 220 VAC only
WTX-14014550-75-ES-XX	100/50	33/72	21x15x12	1300 - 220 VAC only
WTX-14014551-75-ES-XX	125/50.7	33/72	21x15x12	1400 - 220 VAC only
WTX-14014552-75-ES-XX	150/52	50/110	21x15x16	2000 - 220 VAC only
WTX-14014553-75-ES-XX	200/53	50/110	21x15x16	2300 - 220 VAC only

**L to C Band BUC 10-200W**

Model #	Output Power @ P1dB min (Watts/dBm)	Weight (KG/LBS)	Dimensions (inches)	Power Consumption For Booster (Watts)
WTX-596440-70-ES-XX	10/40	10/22	14x8x11	120
WTX-596443-70-ES-XX	20/43	10/22	14x8x11	180
WTX-596446-70-ES-XX	40/46	10/22	14x8x11	250
WTX-596448-70-ES-XX	60/48	12/27	30x8x12	500
WTX-596449-70-ES-XX	80/49	12/27	30x8x12	600
WTX-596450-70-ES-XX	100/50	17/37	22x10x12	800
WTX-596451-70-ES-XX	125/51	17/37	22x10x12	900
WTX-596452-70-ES-XX	150/52	17/37	22x10x12	1000
WTX-596453-70-ES-XX	200/53	17/37	22x10x12	1100