

SATCOM Converter Products
L to Ku Band
Block Up and Down Converters



Four Standard Models:

Model BUC/LKux-1

**Single Block Up Converter
(Extended Ku Band)**

- Option for up to 4 Converters in 1 RU

Model BUC/LKux-2R

**Dual Block Up Converter
with 1:1 Redundancy**

- Hot Swappable Modules

*Models BDC/KuL-1-1**

BDC/KuL-1-2

BDC/KuL-1-X

Single Block Down Converters

- Option for up to 4 Converters in 1 RU

*Models BDC/KuL-2R-1**

BDC/KuL-2R-2

BDC/KuL-2R-X

**Dual Block Down Converter
with 1:1 Redundancy**

- Hot Swappable Modules

- **High Performance Multiple Converters in a Single 1 RU Package**
- **User Friendly M&C**
- **SNMP Interface Option**

Narda's block up converters use the latest technology to provide single and multiple high performance converters in a single 1 RU package. The spectral purity, low phase noise and stability exceed the requirements of all major international satellite network operators. The flexible and comprehensive monitor and control features of these converters ensure that they will fit into any network management system architecture. The user-friendly front panel or the RS485 remote interface provides full set-up and fault monitoring facilities. The RS232 interface provides M&C functions via a PC and allows for software downloading. The PLL oscillator in each converter is either locked to a highly stable internal 10 MHz reference, or as an option, will automatically lock to an external reference. These converters are particularly well suited for applications where a large number of converters are required and where space is limited. This makes them an ideal choice for applications requiring cost effective solutions for frequency conversion.

*Last Digit of Model Number determined by Band.
See Down Converter Specifications.

Up Converter Specifications

Input IF Frequency Range	950 to 1,700 MHz
Input Level	-30 dBm to -5 dBm
RF Frequency Range	13.750 to 14.500 GHz
RF Output Power (P1dB)	0 dBm min.
IMD3 (Two Tone)	-26 dBc max. at -3 dB OBO
Conversion Gain	20 dB at min. gain setting
Spurious	-65 dBc max. carrier related <-70 dBm max. non-carrier related

Down Converter Specifications

RF Input Frequency	
Band 1	10.95 to 11.70 GHz
Band 2	11.70 to 12.20 GHz
Band X	12.25 to 12.75 GHz
IF Output Frequency	
Band 1	950 to 1750 MHz
Band 2	950 to 1450 MHz
Band X	950 to 1450 MHz
Input Level	-70 dBm to -40 dBm
IF Output Level	0 dBm at P1dB
Conversion Gain	30 dB min.
Spurious	-55 dBc max.
Image Rejection	60 dB min.
Noise Figure	15 dB max.

Reference and Interfaces

IF	
Input/Output Connectors	BNC Female (50 Ω)
Return Loss	16 dB min.
RF	
Input/Output Connectors	Type N Female (50 Ω)
Return Loss	18 dB min.
Monitor and Control	
RS485	DB9
RS232	DB9
Discrete	DB9

These specifications are subject to change.
Contact your Narda representative for updates.

Transfer Characteristics

Gain Adjustment	20 dB (1 dB step size)
Gain Flatness	2.0 dB p-p max. over 500 MHz 1.0 dB p-p max. over 40 MHz
Gain Stability	±0.25 dB max. / 24 hours ±1 dB over temp. range
Group Delay (Over any 40 MHz)	
Linear	0.02 ns/Hz max.
Parabolic	0.003 ns/MHz ² max.
Ripple	1 ns p-p max.
Phase Noise	
100 Hz	-65 dBc/Hz max.
1 KHz	-73 dBc/Hz max.
10 KHz	-83 dBc/Hz max.
100 KHz	-105 dBc/Hz max.
Internal Reference Stability	±2 × 10 ⁻⁸ / day
Aging	±1 × 10 ⁻⁷ / year

Physical Characteristics

Environmental	
Operational	0°C to +50°C
Storage	-55°C to +85°C
Humidity	Non-Condensing
Altitude	3,000 m AMSL
Dimensions	
Width	19" (482.6 mm)
Height	1U 1.75" (44.45 mm)
Depth	20" (508 mm)

Power Supply

Voltage	90 - 265 VAC (47 - 63 Hz)
Power	30W
Connector	EC 603320 10A

Options

External/Internal Auto Sensing 10 MHz Reference,
Rack Slide, SNMP Interface

