

L-band Up-converter UPC-70/Ku



The UPC-70/Ku up-converter is part of the successful and field-proven product line of up-and down-converters that together cover all Ku, C and L-Band frequency ranges. The UPC-70/L provides versatile up-conversion from 70 Mhz +/- 20 Mhz to Ku Band with extremely high specifications. It features fully agile tuning in 1 kHz steps. It can cover a single 750 Mhz wide Ku band or can cover two Ku bands of choice. The dynamic range is exceptional. The UPC-70/L shares the same remote control protocol with all IGP up- and down-converters.

IGP remote control software written for the UPC-70/L allows monitoring and control through the internet

The typenumbers vary per output options as follows:

12.750 – 13.250 Ghz:	UPC-70/13
13.750 – 14.500 Ghz:	UPC-70/14
17.300 – 18.100 Ghz:	UPC-70/17
12.750 – 13.250 Ghz & 13.750 – 14.500 Ghz:	UPC-70/13/14
13.750 – 14.500 Ghz & 17.300 – 18.100 Ghz:	UPC-70/14/17
12.750 – 13.250 Ghz & 17.300 – 18.100 Ghz:	UPC-70/13/17

For 70 Ohms input impedance, -75 is added to the type number.

Specifications UPC-70/L

INPUT SPECIFICATION

Frequency range:	70 ± 20MHz or 140 ± 40MHz (check model table)	Options
Connector:	BNC	
Impedance:	50?	75?
Return loss:	=15dB	

OUTPUT SPECIFICATION

Frequency range:	12.75 to 14.55GHz (check model table)	
Connector:	N-type	SMA
Impedance:	50 Ω	
Return loss:	≥ 20 dB	
1dB compression point:	+10dBm	
Third order intercept:	+20dBm	
Output mute:	Front panel, parallel and serial interface	
	>90dB at max gain, >60dB at min gain	

TRANSFER CHARACTERISTICS

Gain:	0 to 30dB, adjustable in 0.1 dB steps
Gain ripple: over ± 20 MHz:	± 1 dB p.t.p.
over output band:	± 3 dB p.t.p.
Group delay distortion: over ± 5 MHz:	<2ns
over ± 20 MHz:	<5ns
Gain stability, 0°C to 50°C:	± 1 dB
Frequency stability, 0°C to 50°C:	10 ⁻⁷
External reference:	10MHz, 0dBm
Synthesizer step size:	1kHz
19. Noise figure (full gain):	<20dB

Spurious

Image rejection:	>75dB
In-band spurious (at 0dBm output):	<-60dBc

PHASE NOISE

10Hz:	<-45dBc/Hz
100Hz:	<-70dBc/Hz
1kHz:	<-80dBc/Hz
10kHz:	<-85dBc/Hz
100kHz:	<-95dBc/Hz
1MHz:	<-110dBc/Hz
Mains related:	<-60dBc

MISCELLANEOUS

Power supply:	90 to 260V, 50/60Hz, 30VA
Mechanical:	1U 19" frame, 400mm deep
Temperature: Operating:	0° to 50°C
Storage:	-40° to 85°C
Relative humidity: Operating:	0 to 90%
Storage:	0 to 95%
Summary alarm:	NO and NC dry relay contacts via rear mounted connector
Summary alarm indication:	Front panel LED
Remote control:	RS232/RS485 serial interface