

Ku-band PLLNB

ELK Series



Features

- High OIP3
- Noise Figure 0.8dB typ.
- LO Stability +/-25kHz, +/-10kHz

ELK- 08 1 25 N

Connector Type: F or N
LO Stability: +/-10KHz or +/-25kHz
Input Frequency: Band 1, 2, 3, 4
Noise Figure: 0.8dB typical

Specifications

Electrical

Parameters	Specs			Notes
Frequency Band (RF Input, GHz)	Model	Start	Stop	
	Band 1	10.95	11.7	
	Band 2	11.7	12.2	
	Band 3	12.2	12.7	
	Band 4	12.25	12.75	
LO Frequency(GHz)	Band 1	10		
	Band 2	10.75		
	Band 3	11.25		
	Band 4	11.3		
IF Frequency(MHz)		Start	Stop	
	Band 1	950	1700	
	Band 2	950	1450	
	Band 3	950	1450	
	Band 4	950	1450	
LO Phase Noise	-75 dBc @ 1 kHz			typ.
	-75 dBc @ 10 kHz			typ.
	-105 dBc @ 100 kHz			typ.
	-120 dBc @ >1 MHz			typ.
LO stability	±25, ±10 kHz			over temp.range
Gain	60 dB			typ.
Gain variation	±0.4 dB			within 30 MHz max.
	±4 dB			max.
Noise Figure,	0.9 dB			typ.
P1dB (Output)	+15 dBm			typ.
OIP 3	+25 dBm			typ.
Output VSWR	2:1			max.
LO Radiation	-60 dBm			typ.
Image Rejection	30 dB			min.
DC power	12~24V			

Current	300mA	typ.
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Mechanical

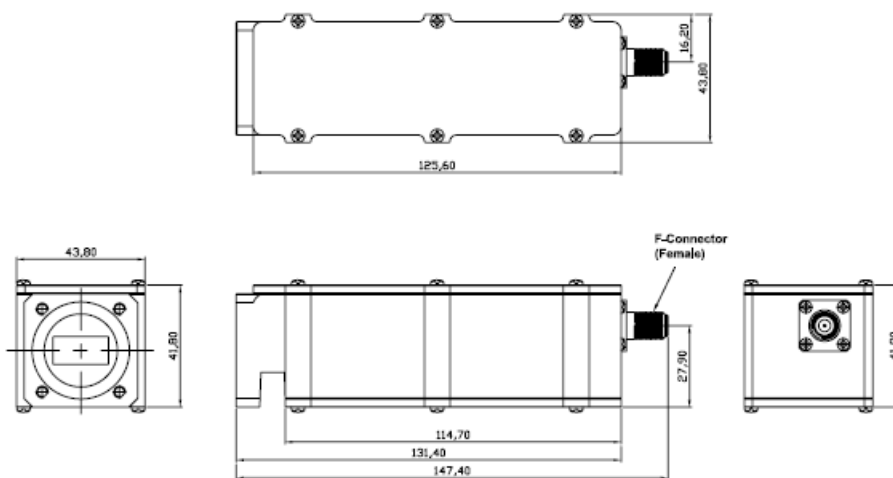
Input	WR-75 waveguide	(R120)
Output (waterproof)	F/N-connector	75 ohm 50 ohm
Weight	450g	

Environmental

Operating temperature	-30 ~ +60 °C	
Storage temperature	-40 ~ +80 °C	

Mechanical Diagram

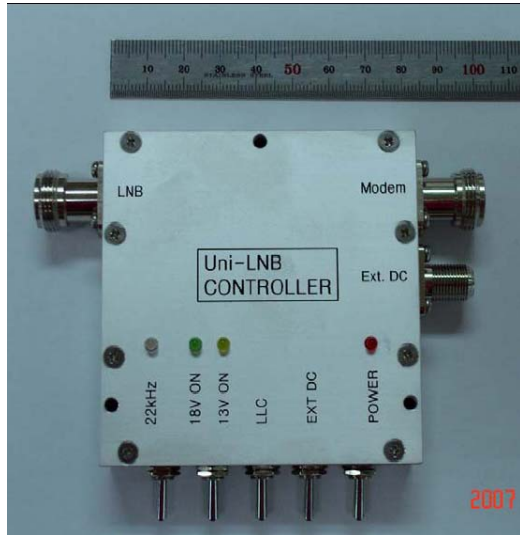
Unit: mm



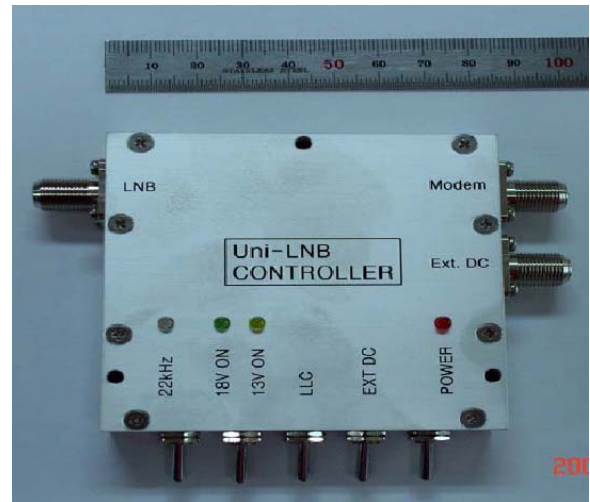
Uni-LNB (Quad Ku-band PLLNB) Control Box

Features & How to operate

- LNB Controller has two RF/DC ports, one external DC input port and five control switches.
- RF/DC ports
 - One RF/DC port is the input port from LNB and the other is the output port to Modem.
 - These ports are F-type connectors having 75ohm impedance (optional N-type with 50ohm).
- One external DC input port
 - If Modem doesn't have the DC output in the RF path, the user can use another external DC input to
- control LNB. Input Voltage level is 24V+/-0.5V.
- Five control switches :
 - SW1 : Define whether 22kHz tone signal is added in the DC power or not.
 - SW2 : Select one of DC power 13V or 18V.
 - SW3 : Select the line length compensation. If selecting this option, the output will be 14V or 19V.
 - SW4 : Choose the DC power source. From Modem or From External Cable.
 - SW5 : Main power switch of LNB Controller. If this switch is off, LNB does not operate.



N-type



F-type