

Optical LNB

Optical Quattro KU-Band LNB

GENERAL

The Optical LNB is an innovative new designed Fibre LNB that converts 4 Universal RF bands (L-Band 950 MHz...5,45GHz) to a single optical output with a 1310nm laser. The fiber-connectors are FC/PC that feeding the distribution network on a single-mode fiber optical-cable. The unit is powered separately via a standard 12V supply using a standard F type (female) connector.

The fiber connection is realized via standard FC/PC connectors feeding the network on single mode fiber optic cable. With an optical output of +7dBm the FiberMDU LNB can drive up to 32 fiber-converters (like RF-Design optical input L-Band splitter units (LSA4108FI or LSA4132FI) that are located within a radius of 10km.

The Optical LNB's are available with 40mm feed or flange C-120.



FEATURES

- Innovative LNB with optical output
- Conversion of all 4 IF bands to a single optical output
- Capable of supplying converted signals to 32 distribution points spread over a 10km distance e.g to:
 - LSA4108FI, QUAD 1:8 splitter with optical input
 - LSA4132FI, QUAD 1:32 splitter with optical input
- 40mm Feed horn or Flange C-120

TECHNICAL SPECIFICATION

- **Dimensions:** see drawing next page
- **Input frequency:** 10,7...12,75GHz linearly polarised (horizontal/vertical)
- **Output frequency,:** 950MHz...5,45GHz
- **Modulated laser output:** 1310nm
- **Optical output power:** 7dBm nominal @25°C
+/-2dBm over full temperature range
- **Noise figure, tpy./max @ 25°C:** 0,5dB / 1,1dB
tpy./max. over temp.: 0,7dB / 1,3dB
- **Gain max. / min.:** 72dB / 62dB (@ room temp.)
- **Gain flatness** (0.95...5,45GHz): 5dB per band
- **Gain ripple:** must be < +/-5dB per 26MHz bandwidth

➤ Phase noise:

<i>Offset Frequency</i>	<i>Maximum Limit</i>
1KHz	-55dBc/Hz
10KHz	-80dBc/Hz
100KHz	-100dBc/Hz
1MHz	-110dBc/Hz

➤ Local Oscillator Stability:

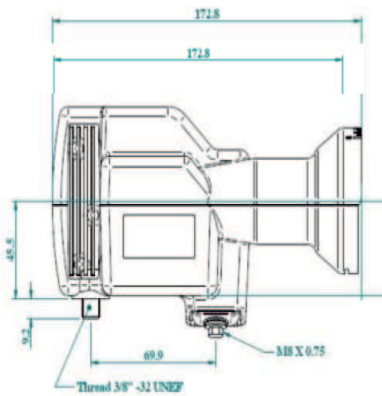
<i>Condition</i>	<i>Max. variation from nominal frequency</i>
Initial setting	± 1MHz
Temp. drift (-40°...+60°C)	± 2MHz
Aging & total drift	± 4MHz

- **Image rejection:** 30dB min.
- **Gross pol. isolation:** 30dB typ. / 25dB min.
- **Supply voltage:** 12V / 450mA
- **Output connectors:** DC in F(f)
Optical out FC/PC
- **Operating temp. range:** -30°C...+60°C
- **Dish/LNB mechanical interface:** 40mm Feed or Flange

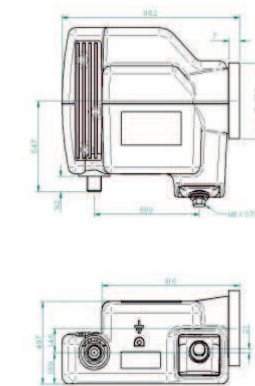
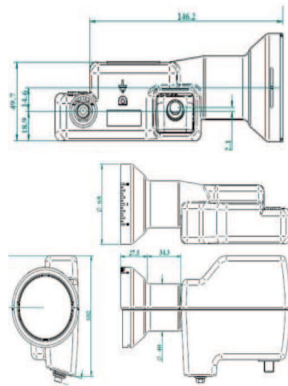
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DIMENSION DRAWING

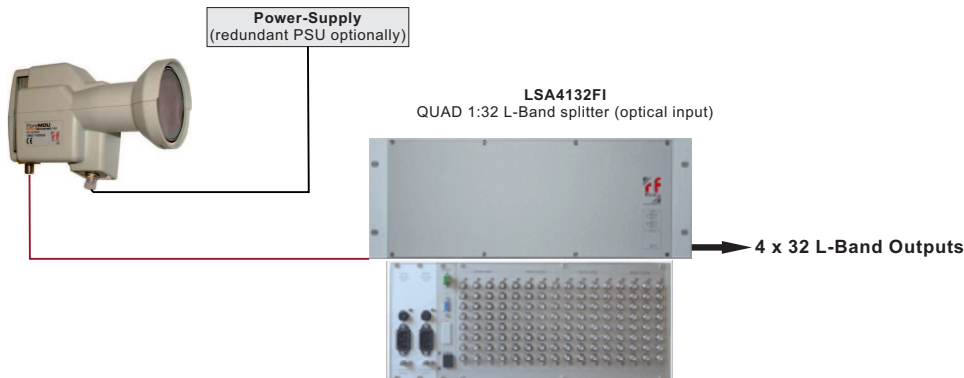
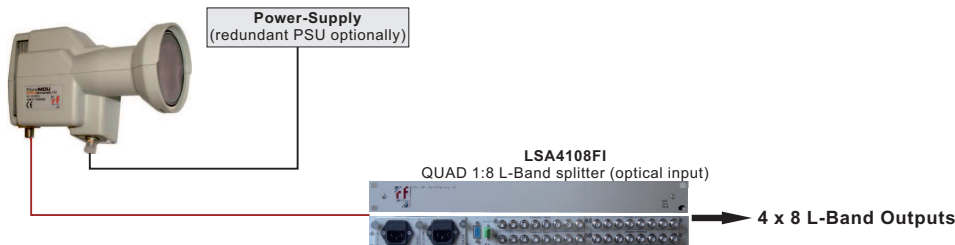


Optical LNB, 40mm Feed



Optical LNB, Flange-C120

APPLICATION DIAGRAMS



ORDER INFORMATION

- **Optical LNB, 40mm Feed:** Optical LNB with 40mm Feed
- **Optical LNB, Flange-C120:** Optical LNB with Flange C-120