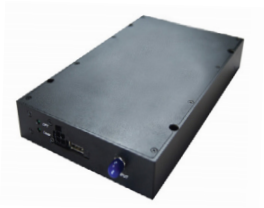
RFLL-20-H

MD-20-M



LTA-20-M

PD-30-M

20 GHz RF over Fiber Lightwave Link

The Optilab RFLL-20-H RF over Fiber Lightwave Link is composed of a MD-20-M modulator driver, LTA-20-M lightwave transmitter module and a PD-30-M receiver to form a high-performance RFoF link for up to 20 GHz applications.

Features

- RFoF Link with 20 GHz Bandwidth
- High Dynamic Range
- Low Noise Figure
- High linearity Receiver
- USB Monitor and Control Interface

Applications

- RF to 20 GHzTransmission over Fiber
- RF/IF Signal Distribution
- Satcom microwave antenna signal distribution
- Broadband delay-line and signal processing
- Phased and interferometric array antenna

Link Performance Summary

Analog Bandwidth	20 GHz
Link Gain Vs Bandwidth	-4 dB / 5 GHz Typical * -7 dB / 15 GHz Typical -11 dB / 20 GHz Typical
Input 1dB Comp	-6.0 dBm @ 1GHz
Gain Flatness	+/- 0.5 dB over 1 GHz
Noise Figure	14.4 dB @ 10 GHz 16.6 dB @ 20 GHz
SFDR	~ 105 dBm x $Hz^{2/3}$
Group Delay	+/- 69.6 ps

* High gain can be realized with EDFA link.

20 GHz RF over Fiber Lightwave Link

Configuration Diagram

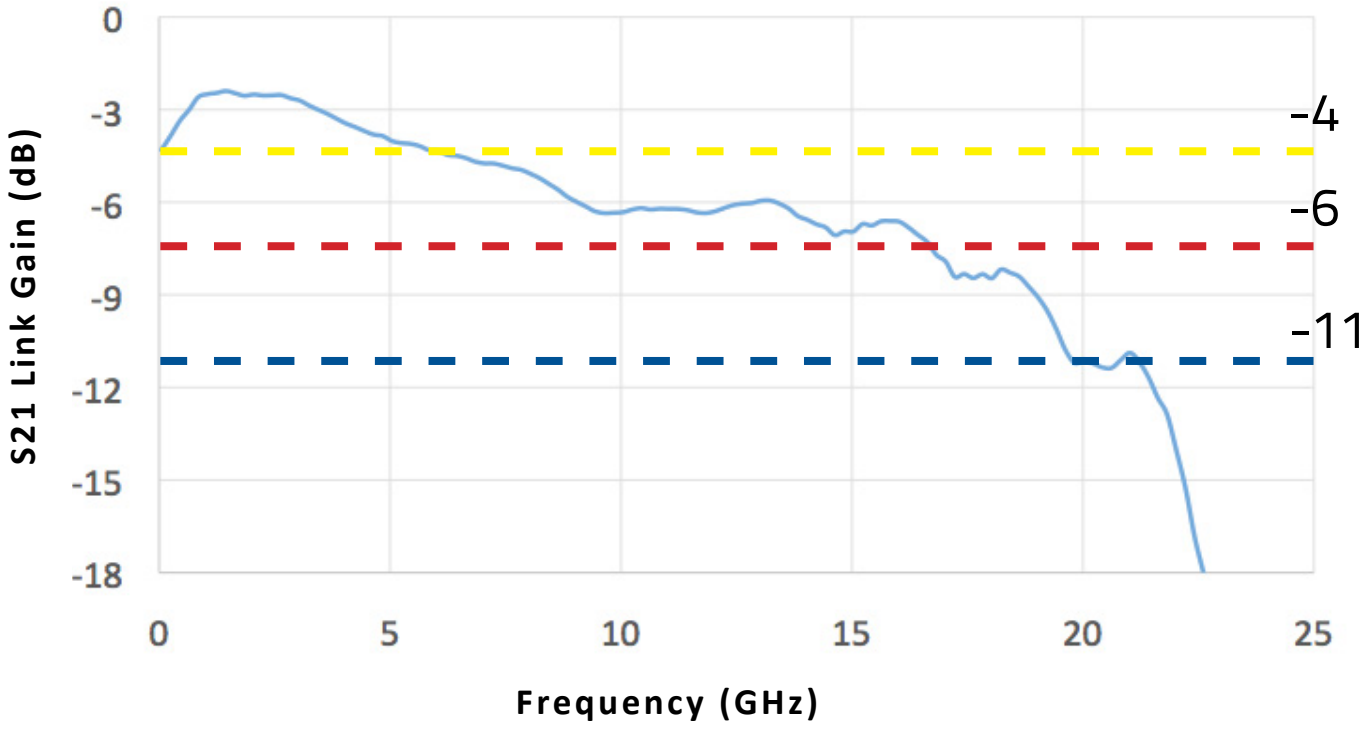
RF Input Power
10 dBm

- **MD-20-M,** 20 GHz Modulator Driver with Adjustable DC Bias (**Datasheet**)
  The Modulator Driver (MD) is a 20 GHz Bandwidth RF Amplifier in a compact and user-friendly module that provides a high-quality, single-ended voltage to drive an optical modulator.

- **LTA-20-M**, 20 GHz Lightwave Transmitter Module for RFoF (**Datasheet**)
  The high performance Lightwave Transmitter Module designed for analog photonics applications from DC to 20 GHz.

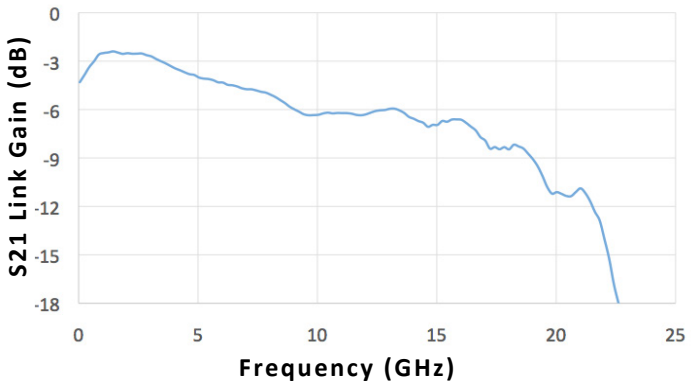
- **PD-30-M,** 30 GHz Linear InGaAs PIN Photodetector, Module (**Datasheet**)
  The bandwidth PIN receiver module designed for RF over Fiber, antenna remoting, and broadband RF transmission applications.

Link Gain

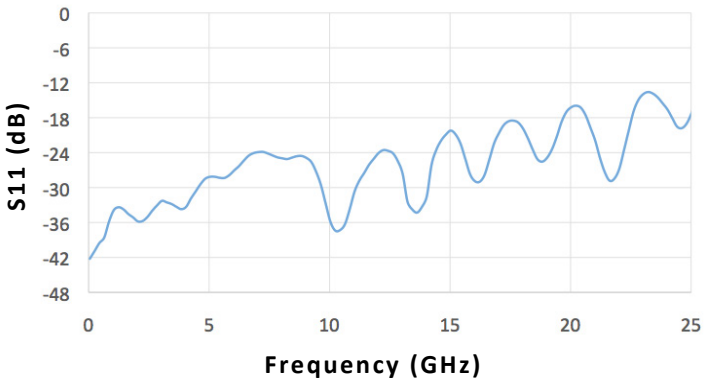


20 GHz RF over Fiber Lightwave Link

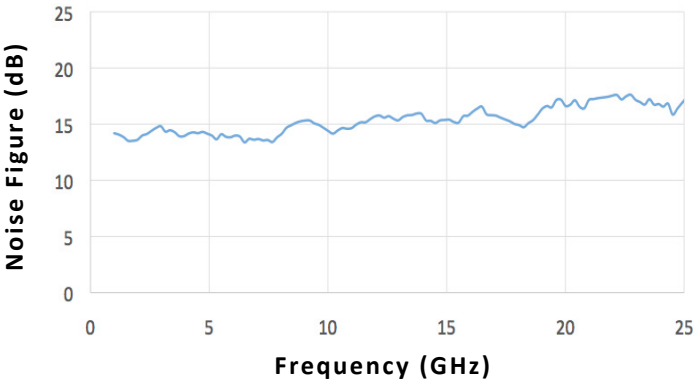
S21 Bandwidth



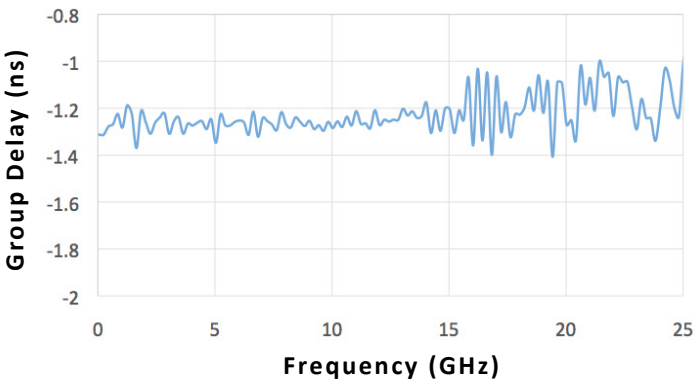
S11 Response



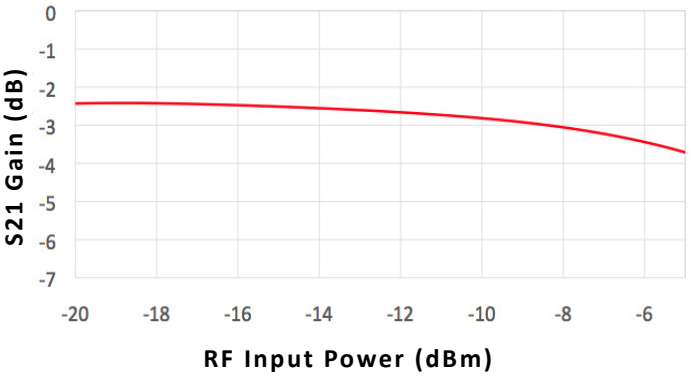
Noise Figure



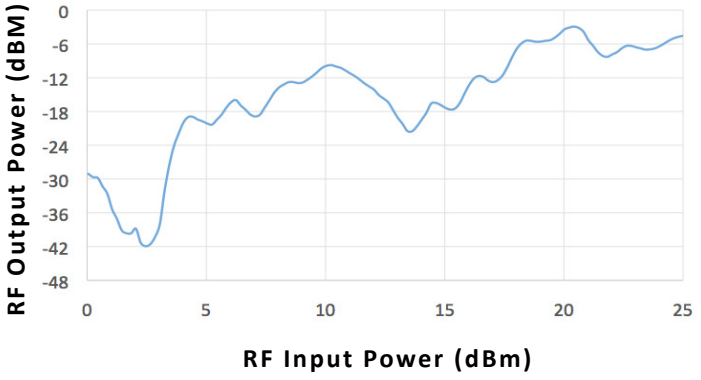
Group Delay



1 dB Compression



S22 Electrical



20 GHz RF over Fiber Lightwave Link

General Specifications

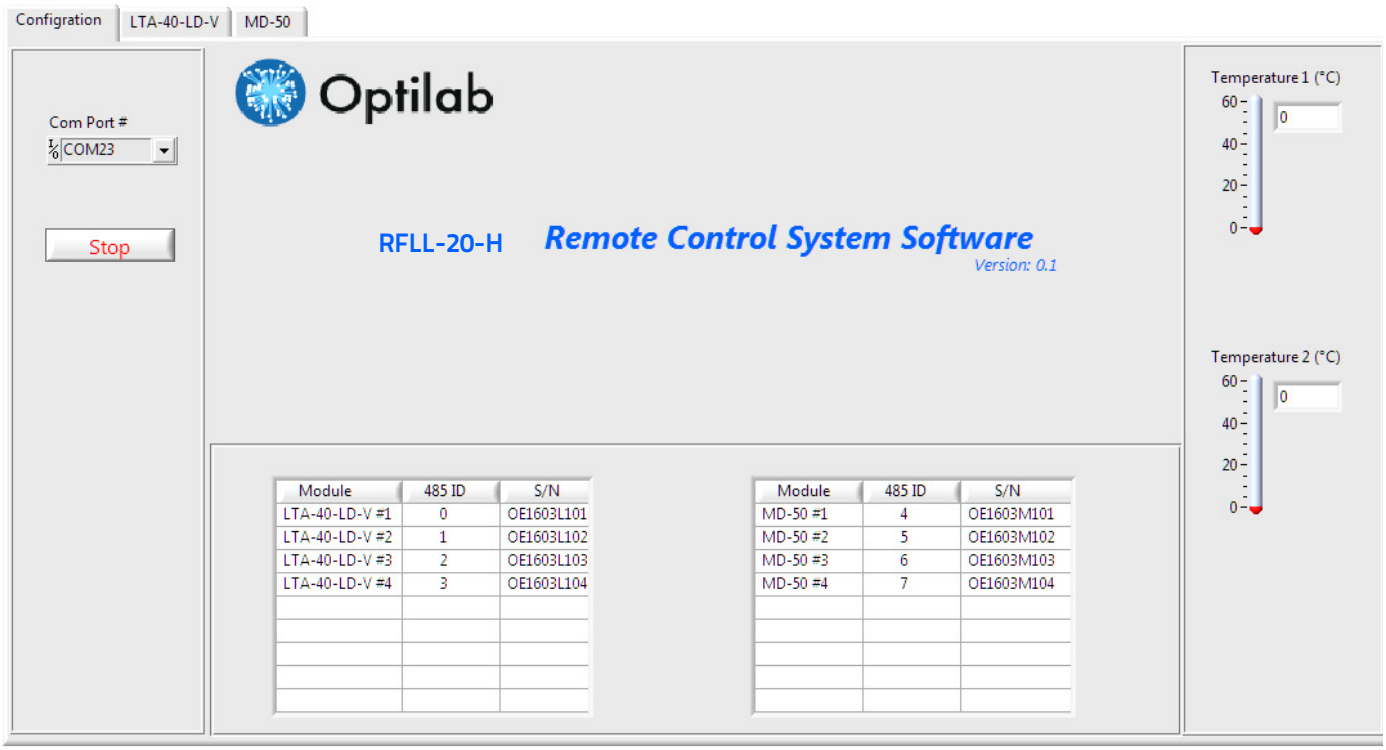
MD-20-M		**LTA-20-M**	
Power Supply Requirements	±5V, 1A typ.	Power Supply Requirements	±5V, 1A typ.
Dimensions	160 mm x 65 mm x 32.5 mm	Dimensions	206 mm x 102.4 mm x 31.5 mm
Accessories	PS-5 & Cables	Accessories	PS-5 & Cables
PD-30-M			
Power Supply Requirements	+5 V DC, 500 mA max.		
Dimensions	82 mm x 60 mm x 26.5 mm		
Accessories	USB adaptor & Cables		

RF Specifications

S11 Reflection	From DC to 17 GHz <-18 dB From 17 GHz to 25 GHz < -12 dB	**S22 Reflection**	From DC to 9 GHz < -12 dB From 9 GHz to 17 GHz < -9 dB From 17 GHz to 25 GHz < -3 dB

Control Software

A LabView™ based control software is used to set the RF over Fiber system perameters and monitors system performance.



WEB ORDER
To order, please click below.

OEQuest.com

For technical info and support:

sales@optilab.com