# Burst Mode Link Analyzer Plus BMLA+



Hollis Electronics Burst Mode Link Analyzer Improved (BMLA+)

is a high technology, low cost data link performance analysis tool, which allows operators to check and correct equalization issues without reduced quality or costly down time.

#### **KEY FEATURES OF THE BMLA+**

Frequency Bands (user selectable)	70MHz/140 MHz
Operating Bandwidth (user definable)	Variable*
Nominal input level	0 dBm to -40 dBm
Input dynamic range	12 Bits
Tx Levels	-10 dBm to -70 dBm
Return Loss	18dB Max, 21dB Typ
Characteristic impedance (input and output; both are user selectable)	50 ohms / 75 ohms
Connector type	BNC (all female)
Accuracy	1ns RMS, 0.1dB RMS
Signal-to-Noise ratio (Noise or Data Carrier)	< -25dB
Resolution	(0.5,1.0,2.0,4.0) MHz
Measurement Burst Duration	56us
Printer Interface	PC Compatible
Normalization	Up to 4-Files
PC Control Windows Program (XP, Vista compatible)	Ethernet for BMLA+
Multiple GUI's for Measurement Observation	Up to 3
Rx Spectral Inversion (Allows use of Inverting Converters)	
Frequency Skipping (Allows skipping of frequency points to 0.5 MHz resolution)	
CW Transmission (Transmits CW tone at fixed frequency and power level)	

<sup>\*</sup> Variable within operating bandwidth; 40 MHz for 70 MHz IF and 80 MHz for 140 MHz IF

#### BMLA+

#### Test Configurations:

Loopback, co-located Transmitter and Receiver

Point-to-Point Transmitter and Receiver can be located anywhere with respect to each other

All modes support multiple users viewing the measurements remotely

#### Highlights: BMLA+

- Measures Group Delay and Amplitude response of an occupied transponder with no disruption of service at levels lower than 25 dB below the Revenue Traffic
- Measurements can be automatic to show link availability and link quality
- Ethernet interface allows remote control and remote viewing by multiple users
- Patented measurement technique is immune to flat fading effects
- LCD Display Shows Operating Parameters and Allows for Field Upgrades

- Persistence allows averaging of measurements for greater Accuracy. Infinite for maximum accuracy under very low SNR cases. User selectable for equalization under Low SNR
- Both 70MHz and 140MHz IF frequencies inverted and non-inverted can be chosen via simple GUI choices
- 50 ohms and 75 ohms can be chosen via simple GUI selection with no user connected transformers
- Fast and Easy to Save Measurement Data and Graphs with and without Normalization

#### Applications:

Satellite

Line-of-Site (LOS)

Any link where IF access is available

### **Burst Mode Link Analyzer Plus**

## **BMLA+**



#### **Specifications:**

#### **Environmental**

Operating Temp. Range: 25° C nominal +/- 5° C

Storage Temperature 0° to 80° C 20 to 80% RH Humidity range

#### **System Specifications**

**Power Requirements** 

Voltage 100-120 VAC

> 220-250 VAC, auto sensing

Frequency 47-60 Hz

Dimensions 19 inch 2U chassis

18.25" D x 19" W x 3.5" H

(534mm D x 483mm W x 178mm H)

Weight TX 11 lbs RX 11 lbs

#### **Transmitter Specifications**

Frequency Skipping:

Tx Output (1dB steps): -10dBm to -70dBm Frequency Resolution: 0.5, 1.0, 2.0, 4.0 MHz IF Frequencies: 70 MHz or 140 MHz Sweep Width:

Variable with operating BW 40 MHz max for 70 MHz IF, or 80 MHz max for 140 MHz IF Yes (up to 0.5 resolution) CW Transmission Mode: Yes (at fixed freq. & power level)

50 ohm/ 75 ohm: User selectable

VSWR. 1.25 : 1 Max, 1.10 : 1 Typical Reference Internal: 10 MHz +0.1ppm, stability

Reference External: 10 MHz (determined by source reference)

IF Connector Type: BNC (IF) **Ethernet Connector:** RJ45 AC Power: 50VA

LCD Display: **Shows Operating Parameters** 

#### **Receiver Specifications**

0dBm to -40dBm Power Input: Frequency Resolution: 0.5, 1.0, 2.0, 4.0 MHz IF Frequencies: 70MHz or 140MHz

Sweep Width: Variable with operating BW

40MHz max for 70 MHz IF, or 80MHz max for 140 MHz IF Yes (up to 0.5 resolution)

Frequency Skipping: 50 ohm/ 75 ohm: User selectable

VSWR: 1.25 : 1 Max, 1.10 : 1 Typical Reference Internal: 10 MHz +0.5ppm, stability

Reference External: 10 MHz <u>+</u>0.5ppm

Signal-to-Noise Ratio:  $\leq$  -25 dB **BNC** IF Connector Type: Connector Type Ethernet: RJ45 AC Power: 50VA Max Frequency LO error: +25KHz

Accuracy: +1ns RMS + 0.1dB RMS LCD Display: **Shows Operating Parameters** 

#### **Alternative Solutions:**

#### **Custom Integration Available**

The BMLA+ uses single card Tx and Rx designs, which can easily be integrated directly into a customer's system.

Contact HEC for more information.

#### **RF Interface Solutions**

The BMLA+ will work with most RF **Converters and Block Converters.** 

#### **Training:**

#### **On-site Training Available**

**Hollis Electronics customizes** BMLA+ training to your specific needs. Training performed on-site.

### **Ordering Information:**

#### Send all inquiries to:

Hollis Electronics Company, LLC 5 Northern Blvd, Unit #13 Amherst, NH 03031

hec@holliselectronics.com

603-598-3428 (FAX) 603-598-4640 (phone)

For custom solutions and training, please provide detailed requirements with inquiry.

Information contained within this document is subject to change based on technological advances. Product names and graphic images are the property of their respective owners. April 2010