

**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)	

\* Variable within operating bandwidth; 40 MHz for 70 MHz IF and 80 MHz for 140 MHz IF

### 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

### 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

#### 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  
Humidity range 20 to 80% RH

#### 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

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

Frequency Skipping: 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  $\pm$ 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

Power Input: 0dBm to -40dBm  
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

Frequency Skipping: Yes (up to 0.5 resolution)  
50 ohm/ 75 ohm: User selectable  
VSWR: 1.25 : 1 Max, 1.10 : 1 Typical  
Reference Internal: 10 MHz  $\pm$ 0.5ppm, stability  
Reference External: 10 MHz  $\pm$ 0.5ppm  
Signal-to-Noise Ratio:  $\leq$  -25 dB  
IF Connector Type: BNC  
Connector Type Ethernet: RJ45  
AC Power: 50VA  
Max Frequency LO error:  $\pm$ 25KHz  
Accuracy:  $\pm$ 1ns RMS  $\pm$  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:

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