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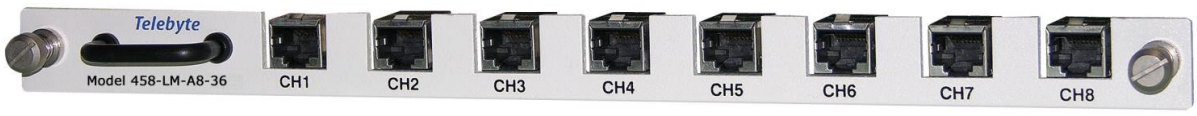
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Model 458-LM-A8-36
Local Loop Simulator

0315-0360 Rev. C
Date of Publication: 03/05/2019



Customer Support

Thank you for your purchase of the Telebyte Model 458-LM-A8-36 Local Loop Simulator, featuring 36 MHz bandwidth and 8 channels for simulation of 26 AWG PIC as specified in ANSI T1.417.

Contact Information:

Telephone		**E-mail/Internet**
General:	631-423-3232	support@telebytebroadband.com
Technical support:	800-835-3298	sales@telebytebroadband.com
Fax:	631-385-8184	www.telebytebroadband.com

Mail

Telebyte, Inc.
355 Marcus Blvd
Hauppauge, NY 11788

Customer Care

Warranty

One-year Warranty

- Telebyte will furnish parts and labor for the repair or replacement of products found by Telebyte to be defective in material or workmanship during the warranty period.[1]

Extended Customer Care

Refer to the Customer Care section of the Telebyte web site for the most current information on extended warranty and calibration contracts [2,3,4]:

http://www.telebytebroadband.com/customercare.html

Disclaimer of Warranties and Other Terms and Conditions

[1] TELEBYTE, INC. warrants its broadband simulation equipment to be free from defects in material and workmanship, under normal and proper use and in its unmodified condition, for 12-months, starting on the date it is delivered for use. TELEBYTE'S sole obligation under this warranty shall be to furnish parts and labor for the repair or replacement of products found by TELEBYTE to be defective in material or workmanship during the warranty period. Warranty repairs will be performed at the point of manufacture. Equipment approved for return for warranty service shall be returned F.O.B. TELEBYTE factory and will be redelivered by TELEBYTE freight prepaid, except for non-continental U.S.A. locations. These deliveries will be sent COD freight and import/export charges.

[2] The customer is responsible for freight and customs charges when shipping products to and from Telebyte for calibration services.

[3] You must purchase the extended warranty at the time of purchase or during the initial warranty period.

[4] You must purchase the calibration contract at the time of purchase or during the initial warranty period. The above warranty is in lieu of all other warranties, expressed or implied, statutory or otherwise, including any implied warranty of merchantability or fitness for a particular purpose. TELEBYTE shall not be liable for any damages sustained by reseller or any other party arising from or relating to any equipment failure, including but not limited to consequential damages, nor shall TELEBYTE have any liability for delays in replacement or repair of equipment.

Equipment Returns

Out of warranty equipment may be returned, prepaid, to the Hauppauge, N.Y. customer service facility. Return shipping charges will be billed to the customer. The repaired unit will have a 90-day warranty. In those cases where "no trouble" is found, a reduced charge will be billed to cover handling, testing, and packaging. Whether in or out of warranty, a Return Material Authorization number (RMA) is required and may be obtained by going to www.telebytebroadband.com and opening a technical support case.

Please be sure to reference the RMA number on the outside container.

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1.0 Introduction

The Model 458-LM-A8-36 Local Loop Simulator accurately simulates 26 AWG PIC as specified in ANSI T1.417. This plug and play line module provides bandwidth up to 36 MHz and 8 channels with loop lengths from 0 to 7,500 ft, in 500-ft increments.

Features:

- Bandwidth to 36 MHz
- Accurately simulates attenuation and impedance
- 8 channels per line module
- High channel-to-channel and line card-to-line card repeatability
- Plugs into our 458-3SLB (3-Slot Chassis) and 458-CC-16/458-CM (16-slot chassis)
- Independent control of each channel
- Ability to open loop at either end of any channel
- MAE <1 dB



Front View of Model 458-LM-A8-36. Both the front and rear of the line module have 8 RJ-45 connectors.

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2.0 Specifications

2.1 458-LM-A8-36

Product Specifications	
Simulation	• Accurately simulates attenuation and impedance • Full bi-directional operation at all specified frequencies • 26 AWG PIC as specified in ANSI T1.417
Bandwidth	DC to 36 MHz
Attenuation Accuracy (when source and load impedances are 100 ohms)	MAE < 1 dB 25 kHz to 36 MHz
Maximum Attenuation	> 90 dB
Impedance Accuracy	Typically +/- 10% 25 kHz to 36 MHz
Maximum voltage tip – ring	200 V
Maximum current	130 mA
Connectors	8 RJ-45's on front, 8 RJ-45's on back

2.2 458-3SLB

Product Specifications (Chassis and Control Module)	
Controls	Keypad for setting loop lengths and IEEE-488 address, RS-232, or Ethernet communication parameters.
Indicators	Backlit LCD display of line length and set up parameters.
Power	88 to 264 VAC, 50 or 60 Hz
Size	[2U] 19 in W x 22 in D x 3.47 in H (482.6 mm W x 558.8 mm D x 88.1 mm H)
Environmental	Operating: +32 F to +122 F (0 to +50 degrees C) Storage: 0 to 95% relative humidity (non-condensing)
Remote Control Connectors	RS-232: DB9 female (DCE); GPIB:IEEE488 24-pin connector. Ethernet: RJ-45
Plug-In Compatibility	Accepts one, two or three 458 Line Modules or one 458-RT

2.3 458-CC-16/458-CM

Product Specifications 458-CC-16 (16-Slot Chassis) & 458-CM (sold separately)	
Controls	Keypad for setting loop lengths and IEEE-488 address, RS-232, or Ethernet communication parameters.
Indicators	Backlit LCD display of line length and set up parameters.
Power	100 - 240 VAC, 50 or 60 Hz
Size	[7U] 19 in W x 22 in D x 12.22 in H (482.6 mm W x 558.8 mm D x 310.4 mm H)
Environmental	Operating: +32 F to +122 F (0 to +50 degrees C) Storage: 0 to 95% relative humidity (non-condensing)
Remote Control Connectors	RS-232: DB9 female (DCE); GPIB:IEEE488 24-pin connector. Ethernet: RJ-45
Plug-In Compatibility	Accepts 1-16 458 Line Modules

Specifications are subject to change without notice. Made in USA.

- Detailed information about the operation of the 458-3SLB and 458-CC-16/458-CM can be found in the reference manuals for those products. Only information specific to the 458-LM-A8-36 is provided in this manual.

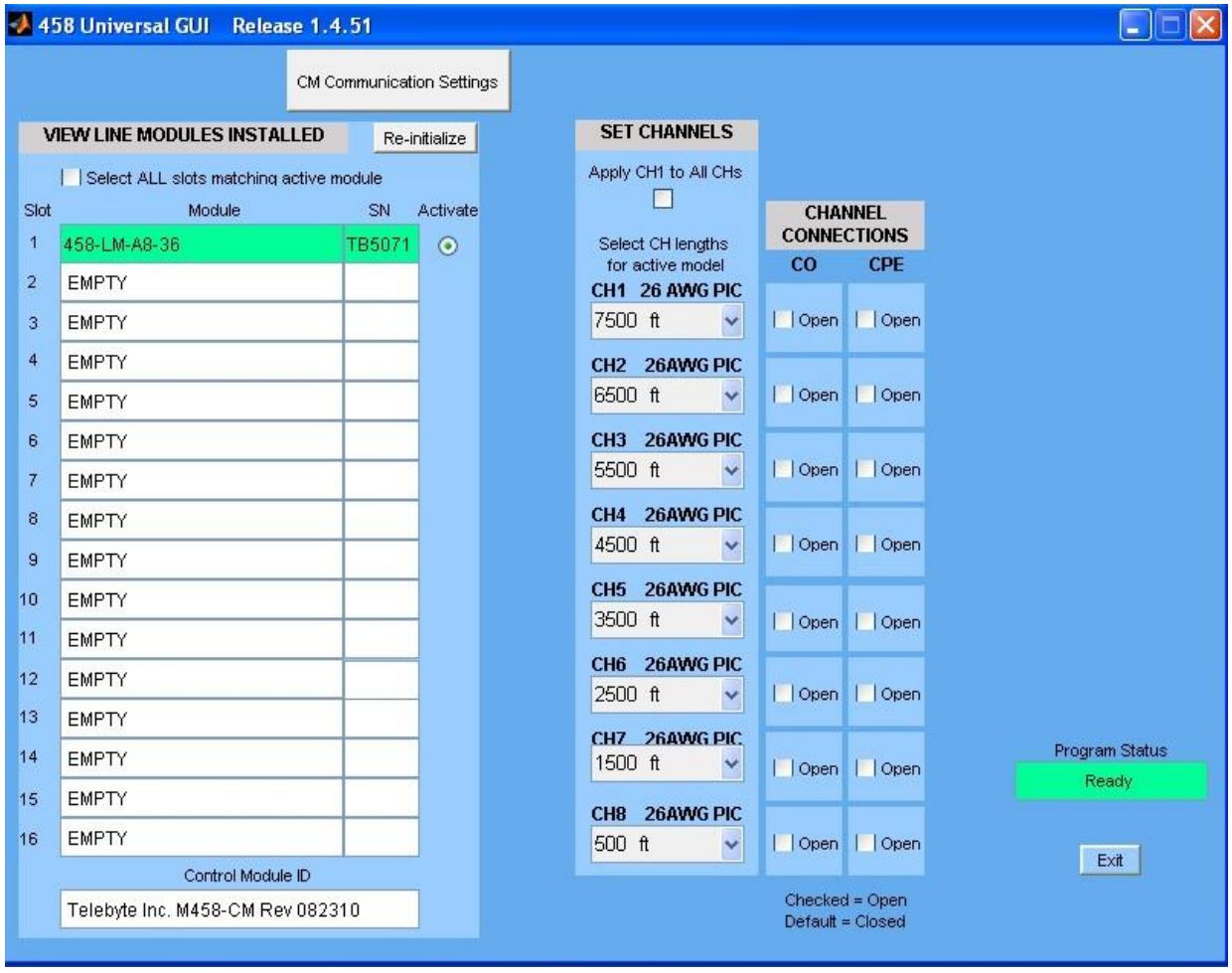
3.0 Control

The Model 458-LM-A8-36 can be controlled three ways: via RS-232 and IEEE488 Remote Commands, our 458 Universal GUI interface or the push buttons and LCD Display on the front panel of our 458-3SLx or 458-CM.

3.1 Remote Commands

Please refer to the manuals for the 458-3SLB or 458-CC-16/458-CM for remote commands common to many line modules, including the 458-LM-A8-36.

3.2 Graphical User Interface



- Refer to the 458 Universal GUI manual for more information.

3.3 LCD Display/Front Panel

Basic Operation

Make selections by pushing the UP, DOWN, LEFT and RIGHT arrow buttons on the front panel. The LCD Display shows the choices made. Refer to the chassis manual for additional details.

Step One – Select Slot

- Navigate to the desired slot in the 458-3SLx (3-Slot) Chassis or 458-CC16/458-CM (16-Slot) Chassis using the UP or DOWN arrows.

Step Two – Select Increment

- Step through the allowable lengths for the current slot using the LEFT or RIGHT arrow buttons. The length will increment in 500-foot steps.

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