

Class Curriculum: Digital Meter Training -Trilithic 860DSP

1.0 Introduction

- 1.1 History of Devices
- 1.2 Pre-knowledge
- 1.3 Current use by technical staff
- 1.4 Pre-test
- 1.5 Evaluation

2.0 Key-pad operation

- 2.1 User ID
- 2.2 "F" connector input use and replacement
- 2.3 Charging, voltage safety, USB input
- 2.4 Time and date set-up
- 2.5 Channel plan

3.0 Levels

- 3.1 Analog Channels, monitor audio
- 3.2 Digital Channels
- 3.3 DOCSIS
- 3.4 dB vs dBmV
- 3.5 Ingress, Egress

4.0 Spectrum Mode

- 4.1 Span
- 4.2 Dwell
- 4.3 Frequency Spectrum
- 4.5 Band starts and stops
- 4.6 Troubleshooting ingress

5.0 Bit Error Rate (BER)

- 5.1 Definition
- 5.2 Back to your 9th grade math class-Scientific Notation
- 5.3 BER is like a Golf Score
- 5.4 Troubleshooting using BER scores

6.0 Packet loss definition specifications

- 6.1 Jitter definition and specifications
- 6.2 MOS definition and specifications
- 6.3 Troubleshooting passives

7.0 Back to the future

- 7.1 Carrier to Noise
- 7.2 Depth of Modulation
- 7.3 Hum
- 7.4 Tilt
- 7.5 Troubleshooting actives

8.0 Modulation Error Rate (MER)

8.1 Definition

8.2 Specifications

8.3 Troubleshooting

9.0 Website (Trilithic) Tests, WWW Tests

9.1 Ping

9.2 Delay

9.3 VOIP test (system dependent)

9.4 Practicum

9.5 Troubleshooting on upstream and downstream frequencies (27MHz and 146MHz transmitter source)

9.6 Seizure screw on Tap, controlled torque adjustment

9.7 "F" connector torque adjustment: QoS change

10.0 Review

10.1 Test

10.2 Review of Test

Example of Test Questions:

An ingress problem can be found on the following frequency in the upstream band:

- A. 147 MHz
- B. Channel 7
- C. 27 MHz
- D. 54 MHz

An excellent Modulation Error Rate (MER) is:

- A. 39 dB
- B. 21 dB
- C. Any dB level above 14 dB
- D. None of the above, MER is only important on analog channels and they are going away

True or False? While they are expensive, customers can buy a 2-way splitter at a retailer (example Radio Shack) that has no insertion loss in dB.

- A. True
- B. False