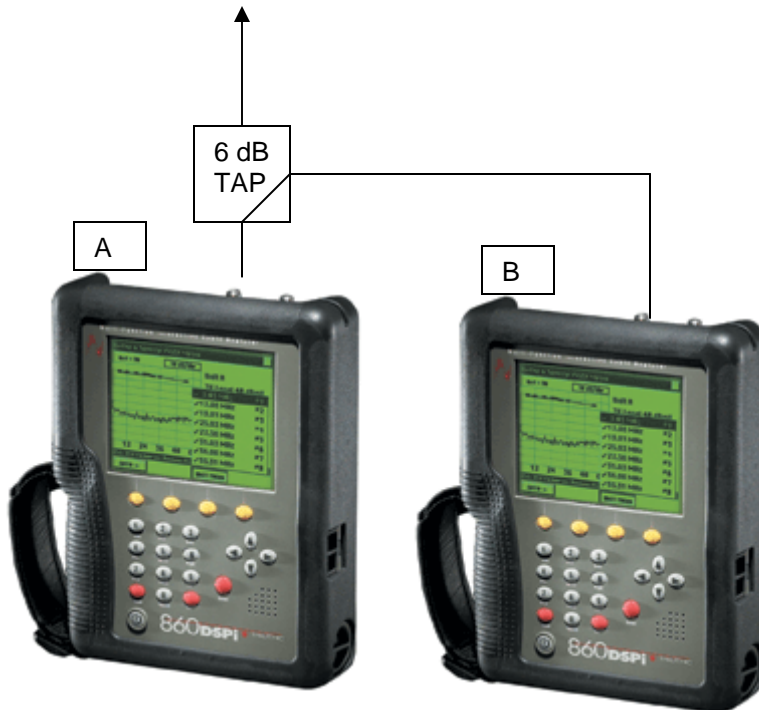


860 DSPi Upstream Level Measurement

This paper describes the upstream level measurement on the 860 DSPi. This level measurement is displayed on the lower right of the PING menu as well as on the CMSTAT Menu. This value was displayed 2 dB lower in firmware versions from V4.9.1.0 to V4.12.1.0 due to an attempt to add a calibration factor to compensate for the loss from the SLM input connector to the internal cable modem. Starting in the V5.2.1.0 Release, this correction factor was revised to be a correction curve taking into account the actual loss in this same Rf path.

The upstream level measurement is tested by the following procedure.

1. Connect the Test setup as follows:



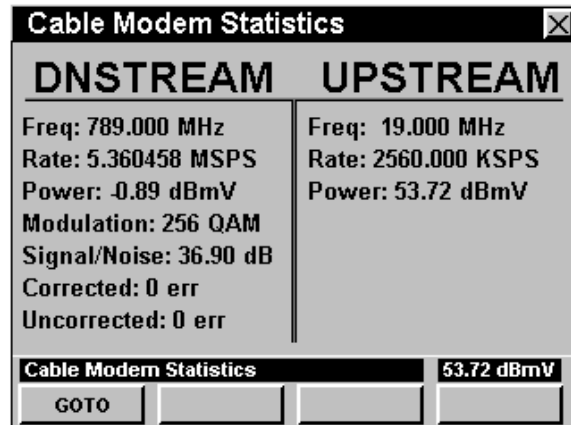
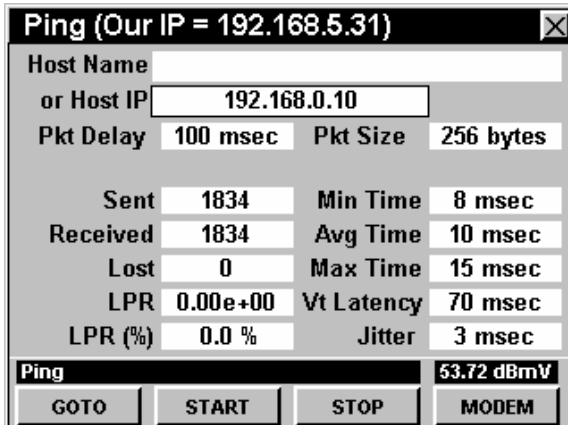
2. Enter the Setup Menus on the first 860 DSPi "A" and set the "Network Port" to "Internal Cable Modem" and set the "Show Modem Info" to "Yes"



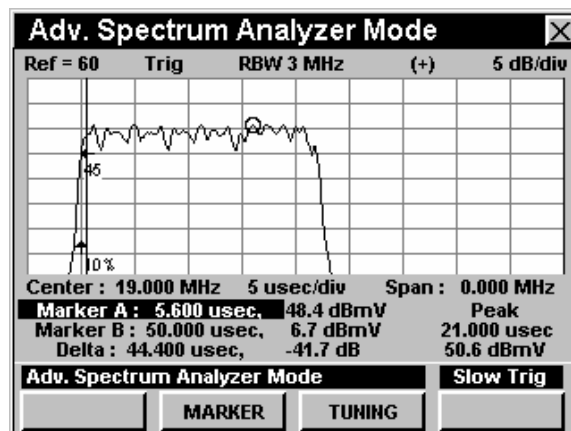
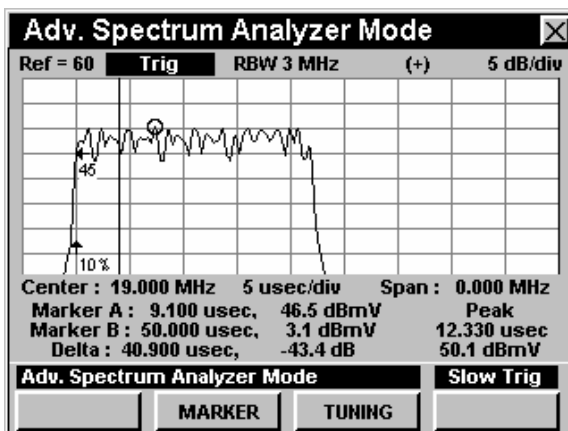
For Additional Help Contact
Trilithic Applications Engineering
1-800-344-2412 or 317-895-3600
support@trilithic.com or
www.trilithic.com

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- Enter the Ping Menu on the first 860 DSPi "A" and let the unit log on to the CMTS. Once the unit logs on to the CMTS, start pinging the CMTS at a 100 msec rate. If you enter "0.0.0.0" for the Host IP, the 860 DSPi will use the DHCP server as its ping destination and this is usually the CMTS or near the CMTS. The display should look like following picture. Note the number in the bottom right is the cable modem upstream transmit level. This is the same value that is displayed on the CMSTAT menu.



- Setup the second 860 DSPi "B" as shown in the screen. Make sure that the RBW is set to your upstream bandwidth (in our case 16QAM, BW=3.2MHz). You may need to set the trigger edge to (auto) until the screen looks good.



- The peak power level is shown as +50 in these two captures with the front edge being at around +48. If we then add back in the +6 dB for the TAP, the modem should be transmitting around +54. Now, where we measure the power is the question, the flat front end corresponds to the initial fixed symbols and looks like a good place.

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