

The Gated Composite Second Order measurement test should be performed using a bandpass filter at the analyzer's input as shown in Figure 1. This prevents overloading in the analyzer. To ensure accurate measurements, the bandpass filter needs to be tuned correctly. See the document on tuning bandpass filters "Proper Alignment of Tunable Bandpass Filters for Noise and Distortion Testing" (#AP-AT10-012-A). This measurement is not necessary for HRC frequency allocations.

A preamplifier is not normally needed because the AT2000 analyzer has its own internal pre-amp. A signal level of 5 dBmV will produce a 70 dB dynamic range.



Figure 1

In order to make a gated CSO measurement, a quiet line of video is necessary. Sunrise recommends the use of a quiet line inserter at the headend. If this is not available, we recommend using a local origination channel because the video normally originates at the headend. This measurement can be made using quiet lines from a broadcaster.

The first step in making this measurement then is to verify which are quiet lines on the channel to be measured. This is most easily accomplished using the Depth of Modulation measurement in the main menu. To verify a quiet line, use the following steps from the turn on condition of the analyzer.

1. From the main menu, highlight the Depth of Mod measurement and press ENTER.
2. Press the Video Carrier soft key to enter the desired channel number* and then press ENTER.
3. Using the Amplitude hard key, raise or lower the attenuation until the sync tips of the video are between the top two graticles.
4. Press the ESCAPE key to return the analyzer to the Depth of Mod mode.
5. Using the Line Select soft key, step up through the lines of video until a quiet line is displayed as shown in Figure 2. Notice the field and quiet line number displayed on the bottom.

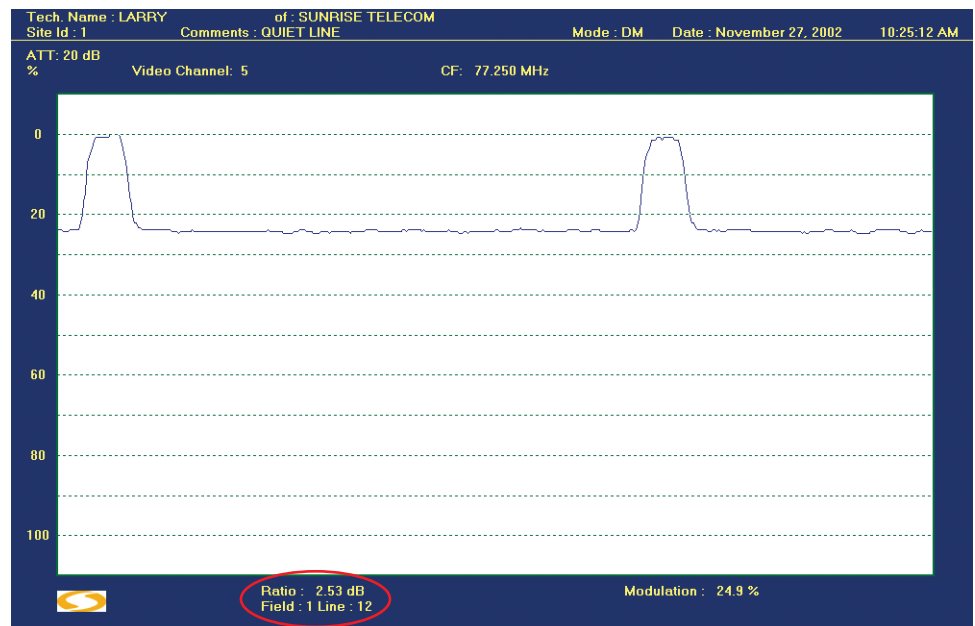


Figure 2

Field and Line Number

* The desired channel must be active in the instrument's channel plan.

