

FOR SALE
SUNRISE TELECOM AT2500RQv2 Spectrum/QAM Analyzer

This unit began life as an AT2000R9 model, but was upgraded around 2004 to 2005 to an AT2500RQv2 model. When I acquired the unit it was not functioning and I spent almost 3 months, as I had time, repairing several different issues. It appears (to the extent I can determine) that the unit initially likely only had a failed internal battery, but was then sent to a repair shop that knew very little about Sunrise Telecom units. I had to find and correct their mistakes to get it functional again. I've since monitored it's operation for a month to be absolutely sure that it is stable and within original factory specifications for all manual and firmware tests. This unit has a new sealed lead-acid main battery, a new CMOS backup battery, plus other key components were replaced including the external temperature detector. Internal and external temperature sensing/monitoring is key to keeping the unit within calibration as temperatures vary over time.

Version 2 hardware means the AT-WEB option, which enables remote control and fully automated **QAM** testing, is not available. It should, however, be a great analyzer for someone who doesn't need fully automated (QAM) testing. With several minor limitations, this unit conducts all the (same) tests (with identical accuracy) as a new unit just off the VeEX assembly line but at a fraction of the cost. And the important video testing option - differential phase & gain plus CLDI - is included. See all photographs of the unit in action on following pages.

Sale price is \$1,995 plus shipping charges. It will be shipped with a fresh calibration (including a Calibration Certificate) and a 60 day warranty. A canvas carrying case, DC charger, and my 2 hr 40 minute Training Video are included with the sale. The Training Video includes a data CD that includes all software programs and Users Manuals, including a Version 2 Users Manual for this model. *Thus unit will not be available until sometime in February 2019 as I have to assist a near-by MSO with their triennial color testing before I can sell it.* Bear in mind that the original unit was built in 2000 so it's almost 20 years old. There are some signs of wear on the case (including the canvas case), and the lettering on the Enter Key on the keyboard is hard to read. However, there are no major scratches except on the handle, and the screen is in good condition with no scratches or dead pixels.

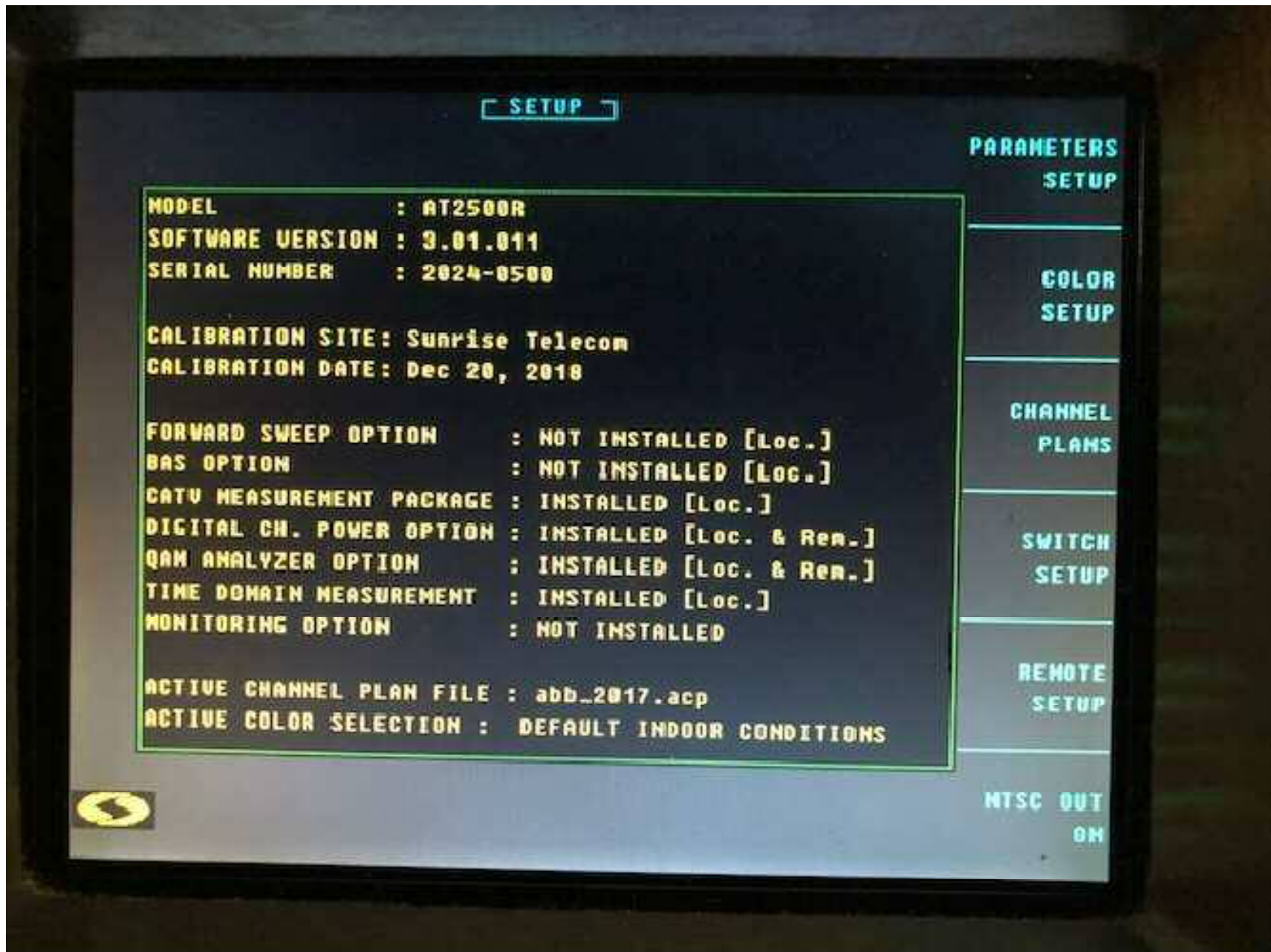
Feel free to contact me if you have questions. I can be reached via email or the cell number shown below.

Regards,

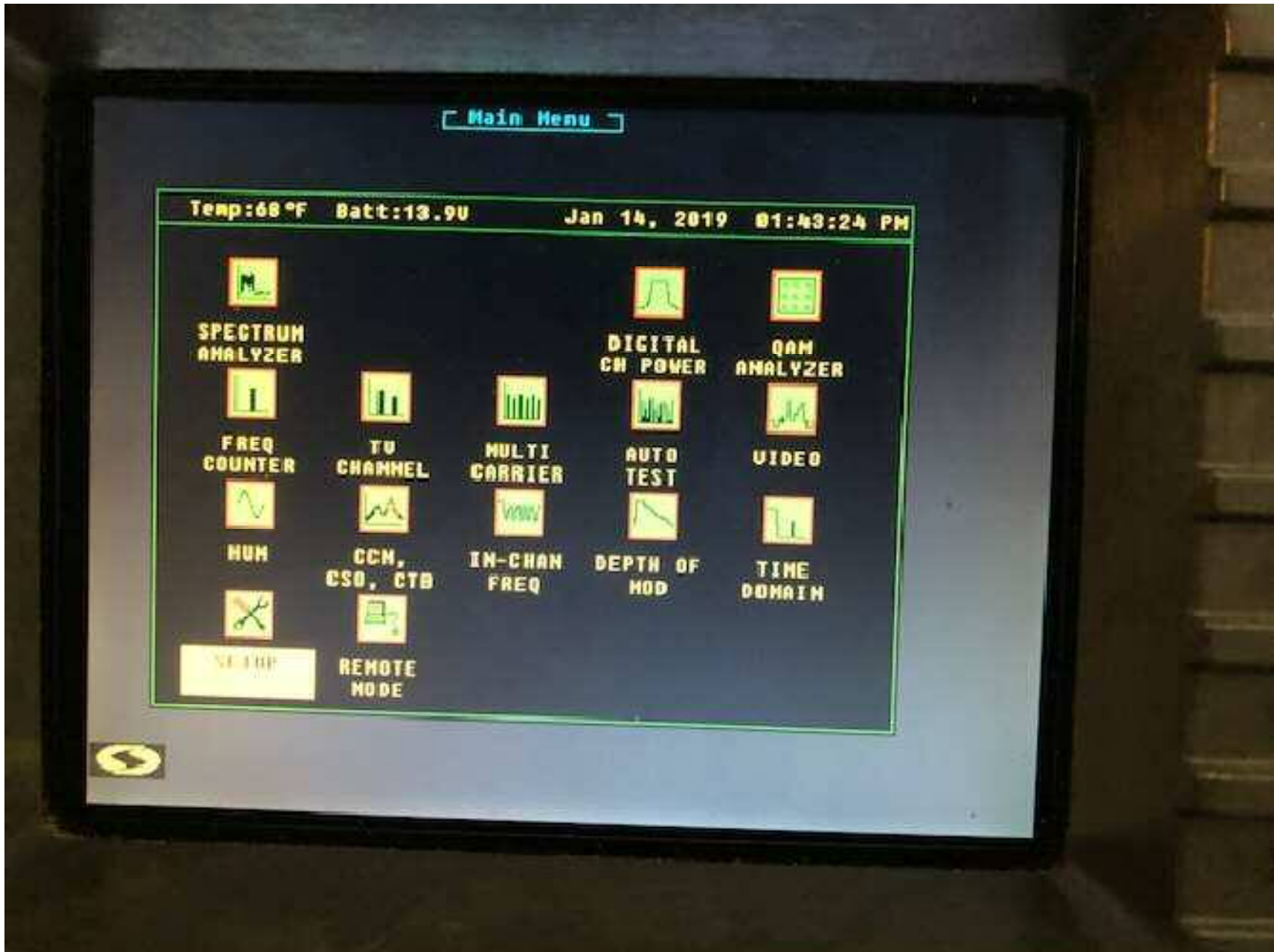
Mark Bowers, Principle Engineer BS, MS, NCE
Cablessoft Engineering
28766 Honey Creek Ln
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712-310-2023 Cell



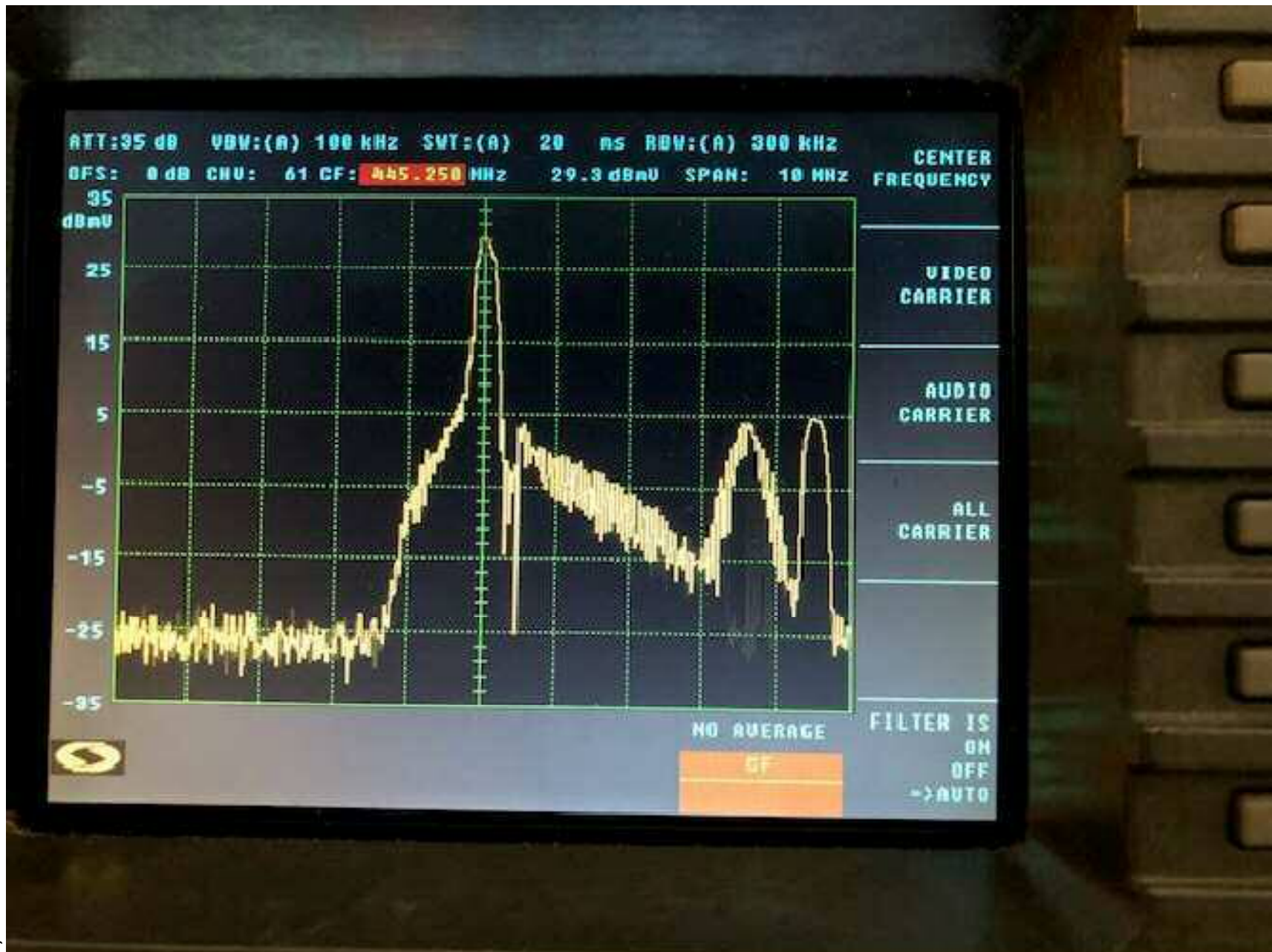
Unit shown in carrying case. Showing the SETUP screen with bottom access door open.



Close up of SETUP screen. Note recent calibration date. Calibration will be updated at time of sale.



Close up of MAIN screen



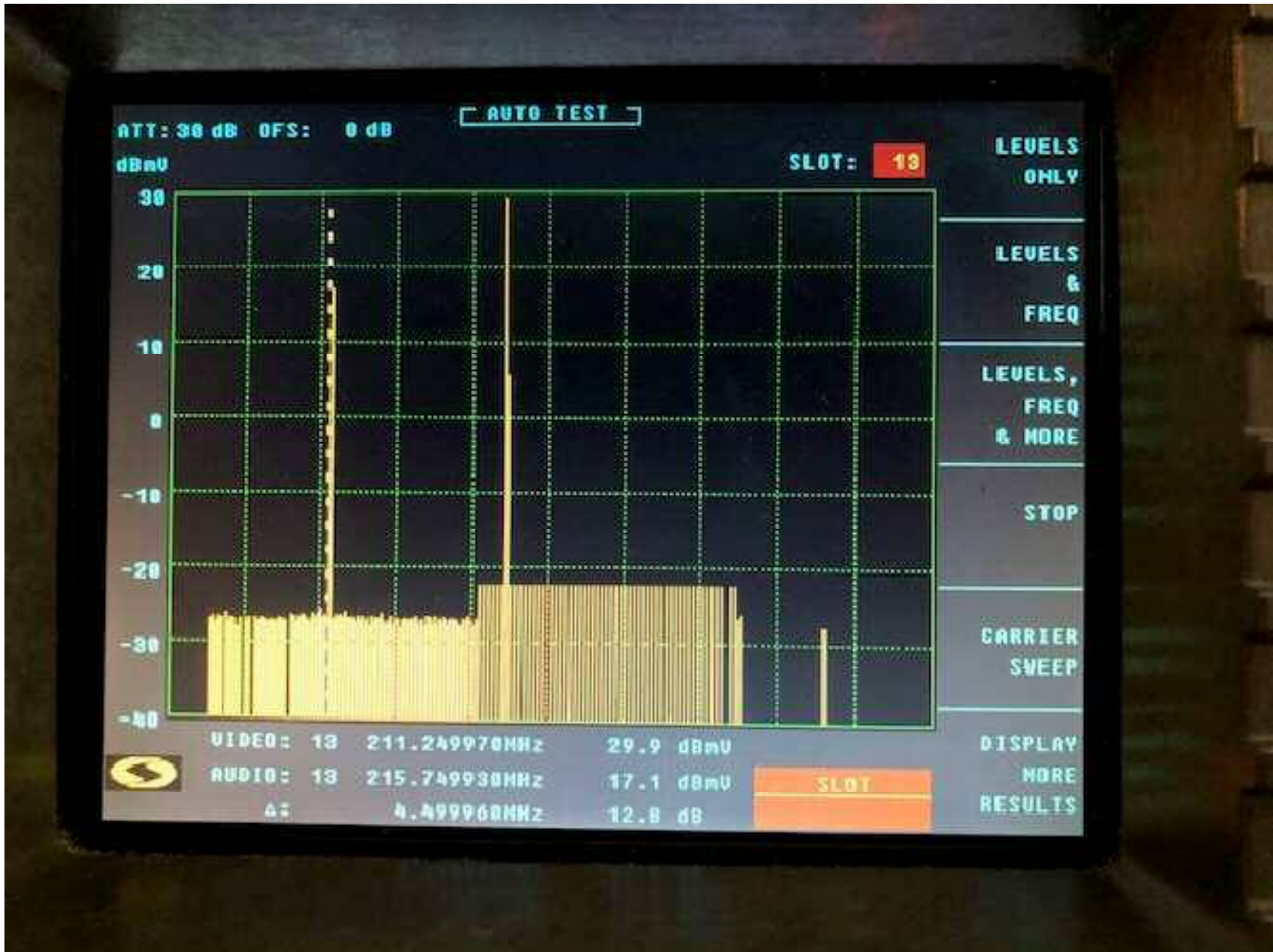
Channel 61 analog carrier modulated with NTC7 Composite VITS video signal.



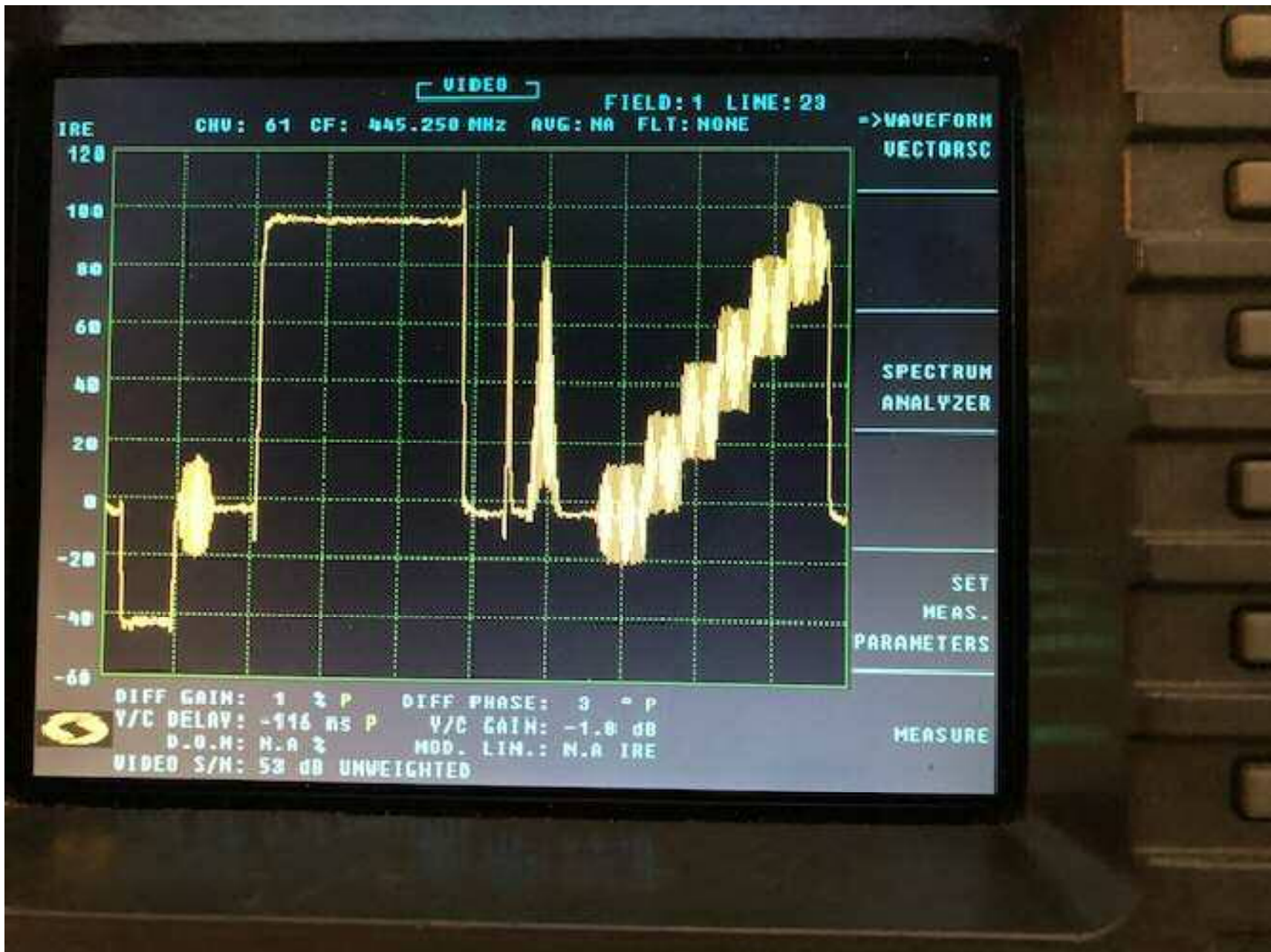
Channel 61 levels and frequencies.



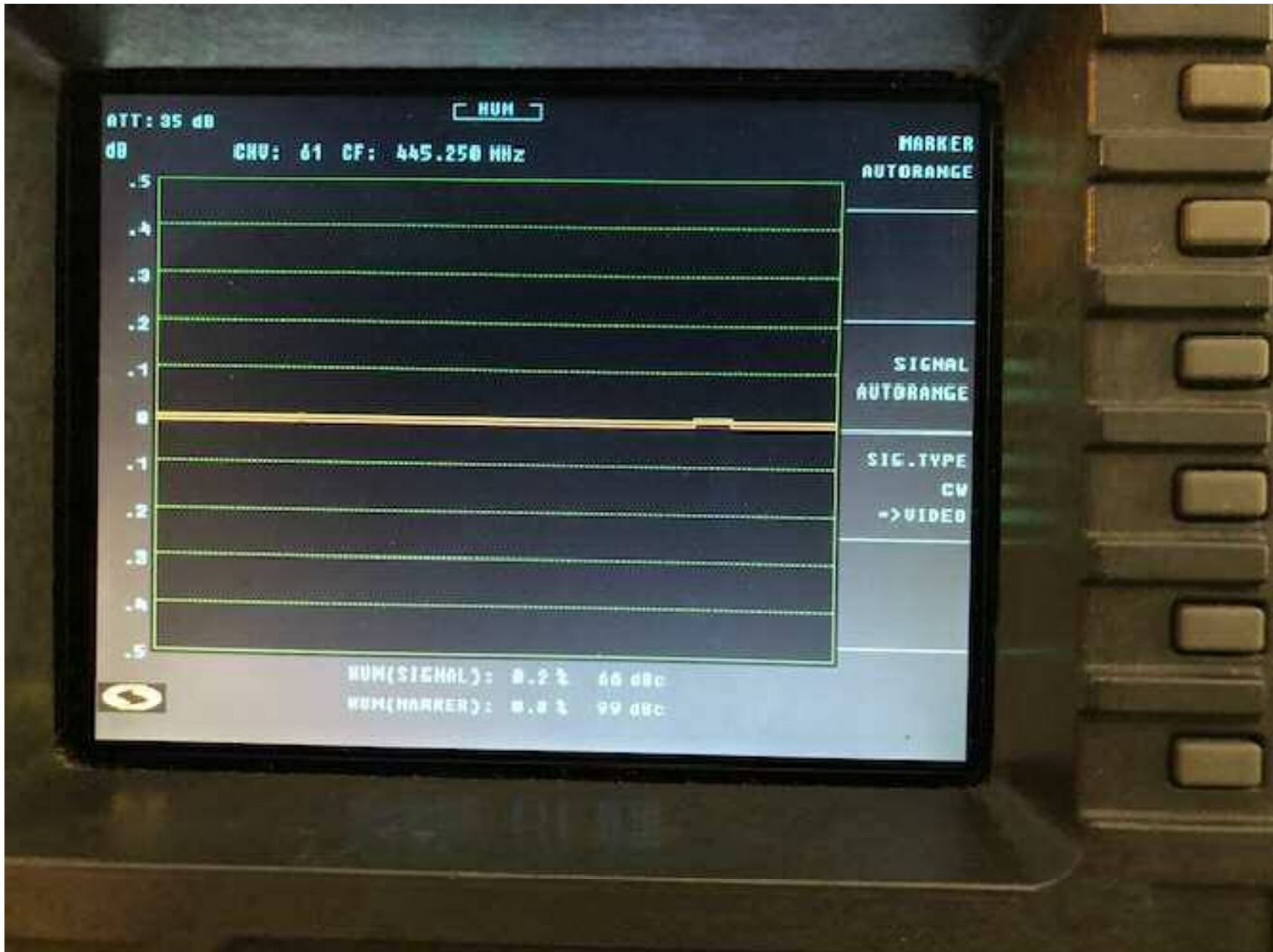
Multi Carrier mode with only channels 13 and 61 activated in my lab.



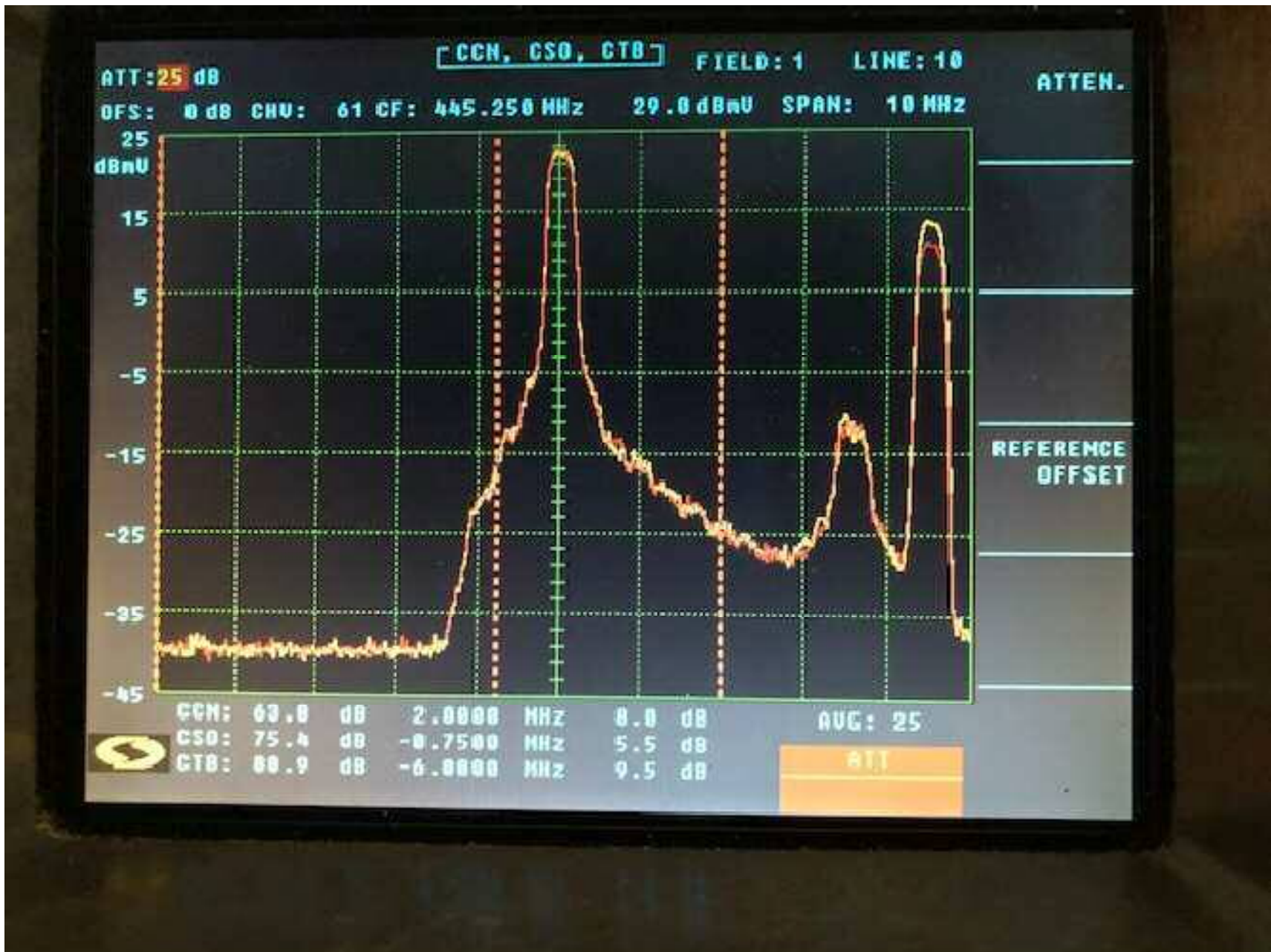
Auto Test showing scan of all carriers, analog and QAM. Only 2 channels were activated. This scan can also include CCN and LFI/HUM if the Channel Plan is configured properly.



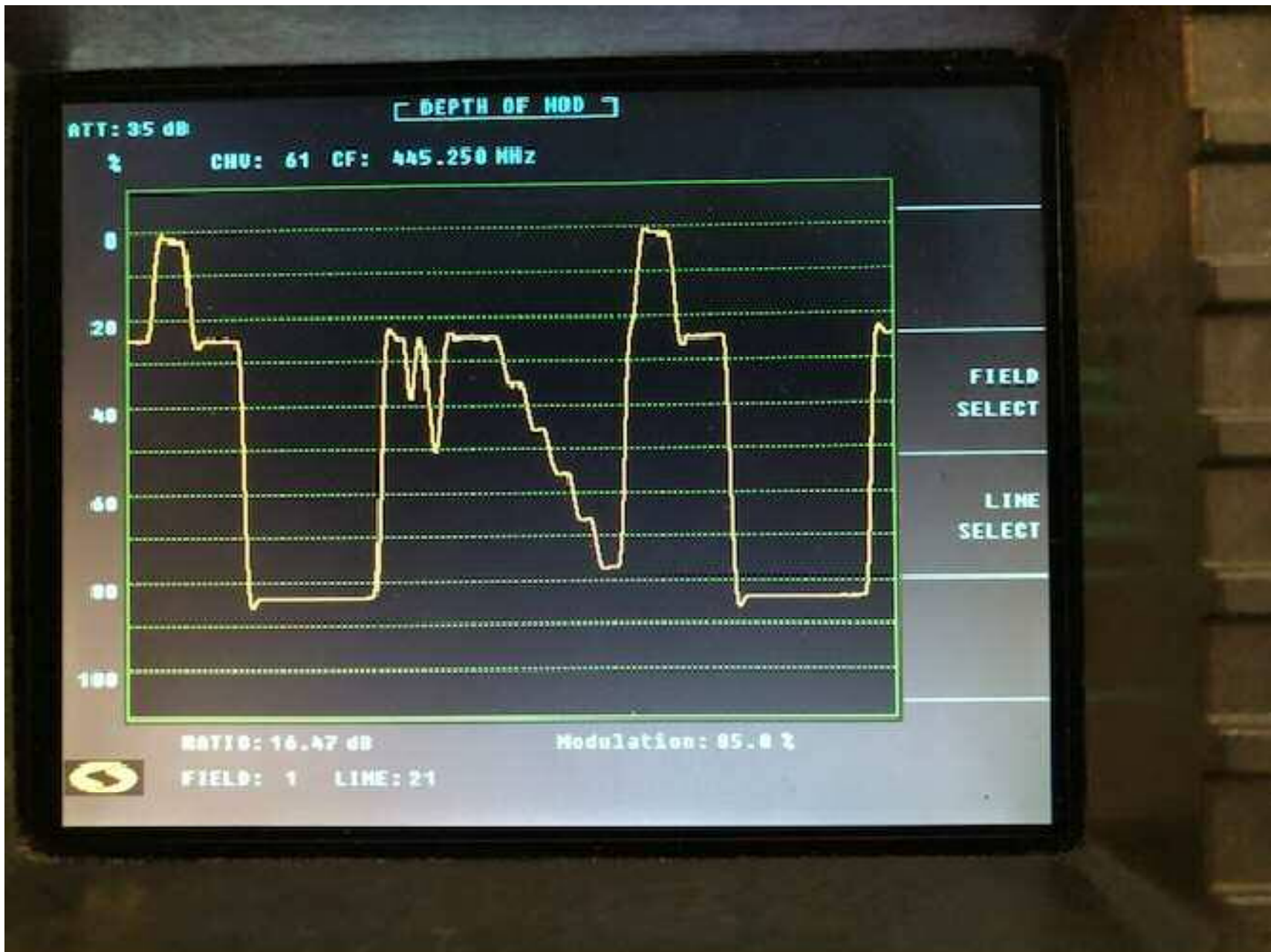
Color measurements: differential phase & gain plus CLDI (Y/C Delay)



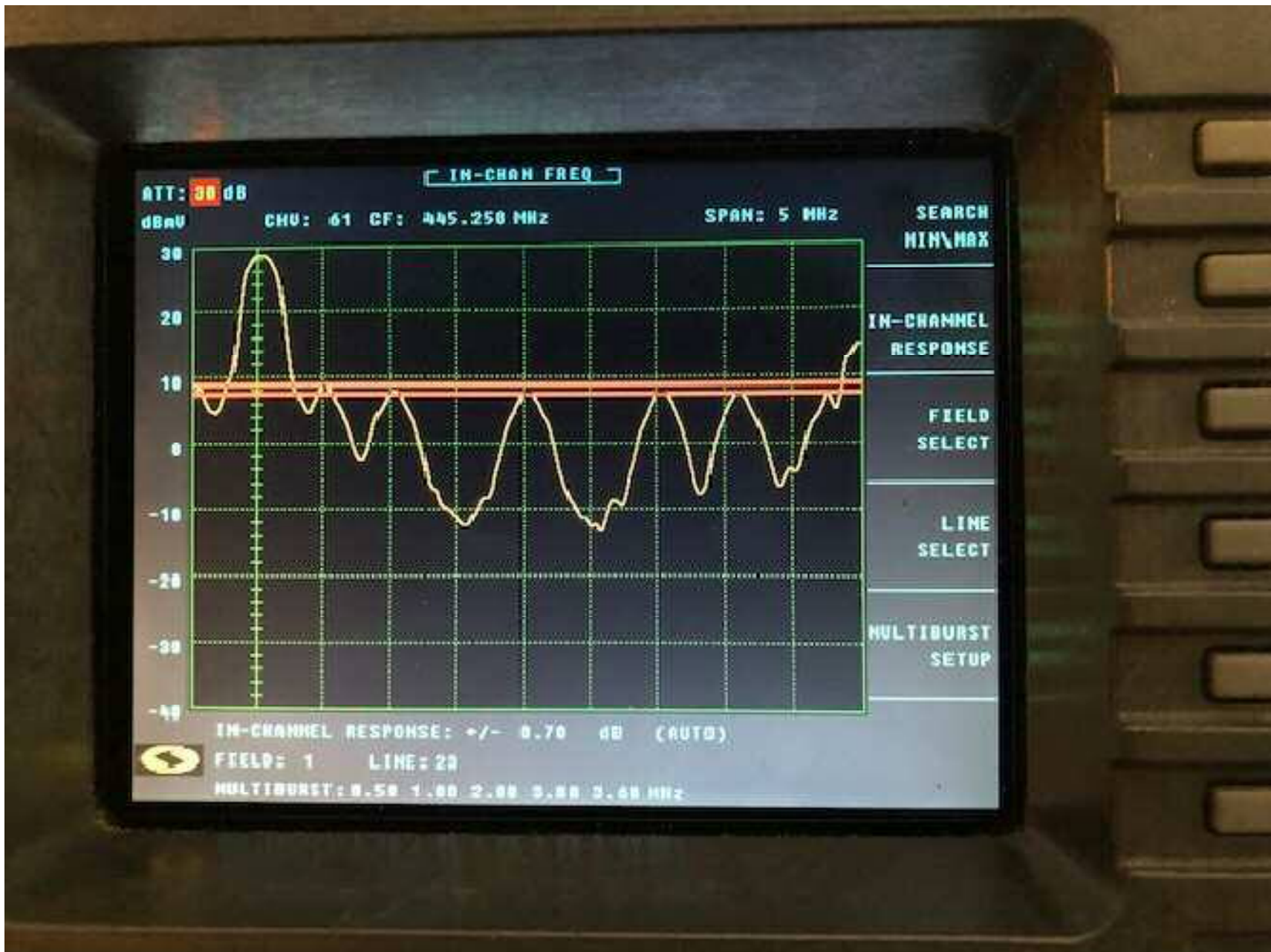
LFI/HUM measurement on Channel 61



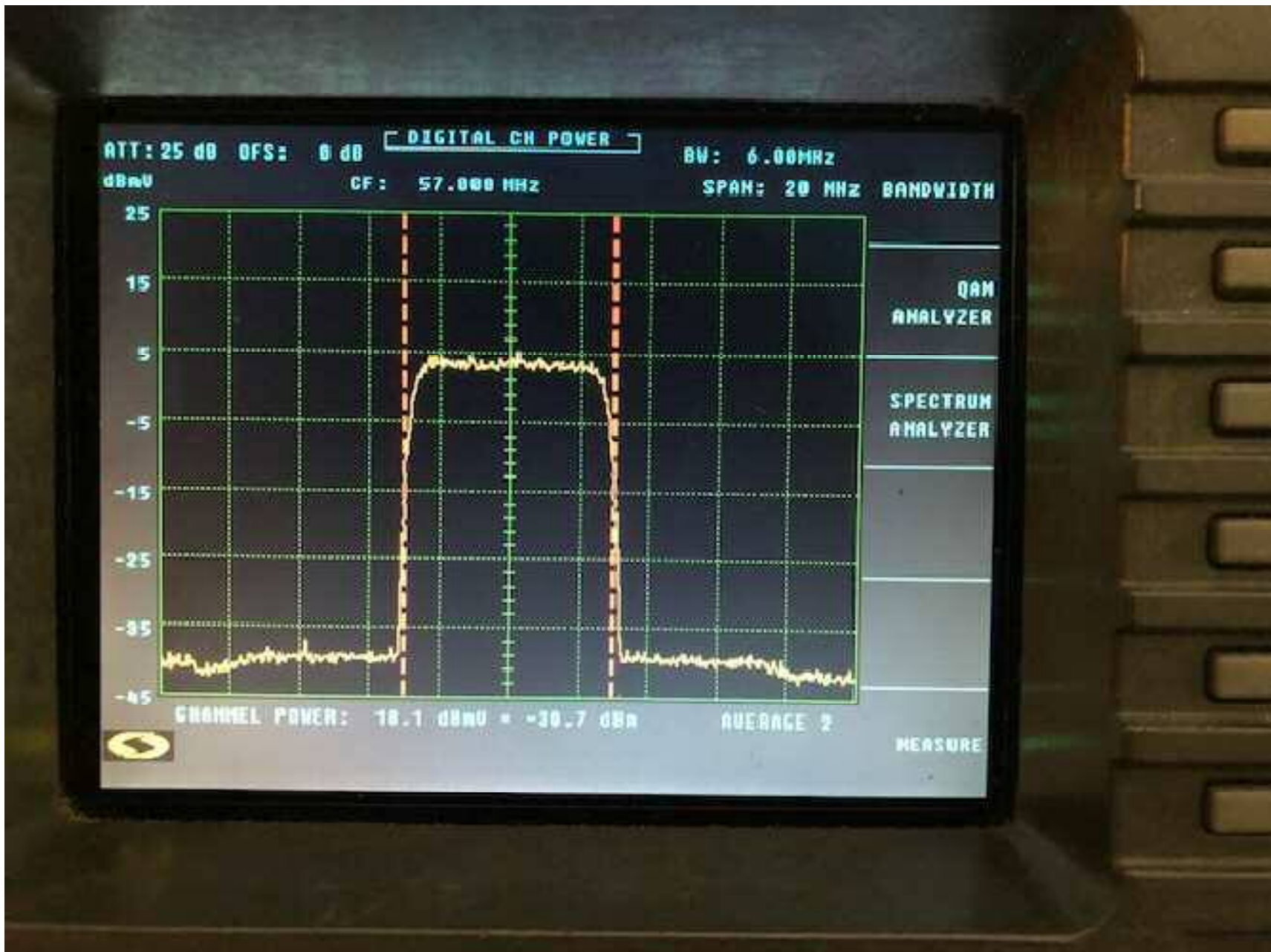
CCN, CSO & CTB measurements on Channel 61 in the lab. Measured values in a cable system would obviously be much poorer.



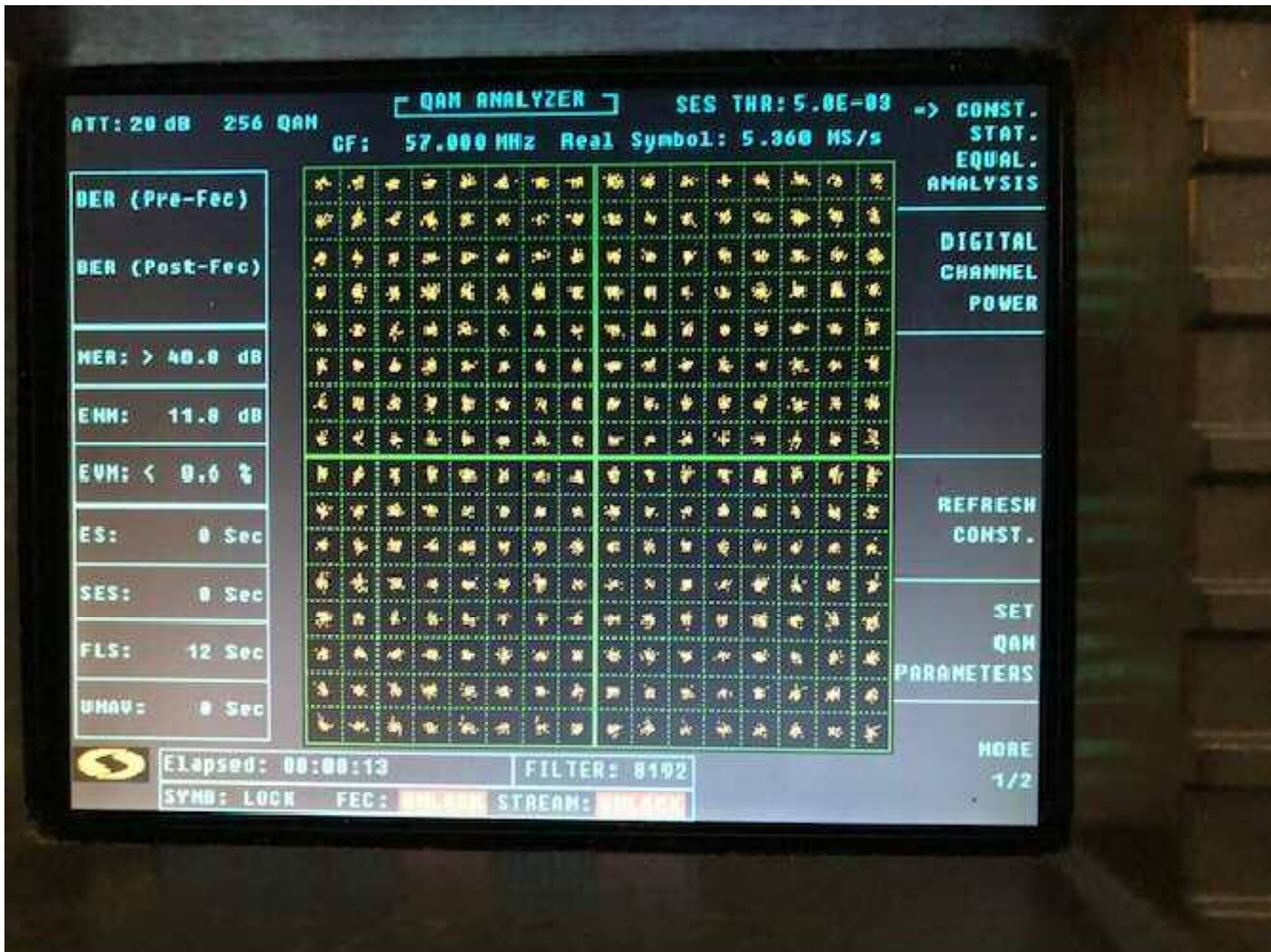
Depth of Modulation measurement on Channel 61.



In-Channel Response measurement of Channel 61 (old modulator) using a multi-burst test signal.



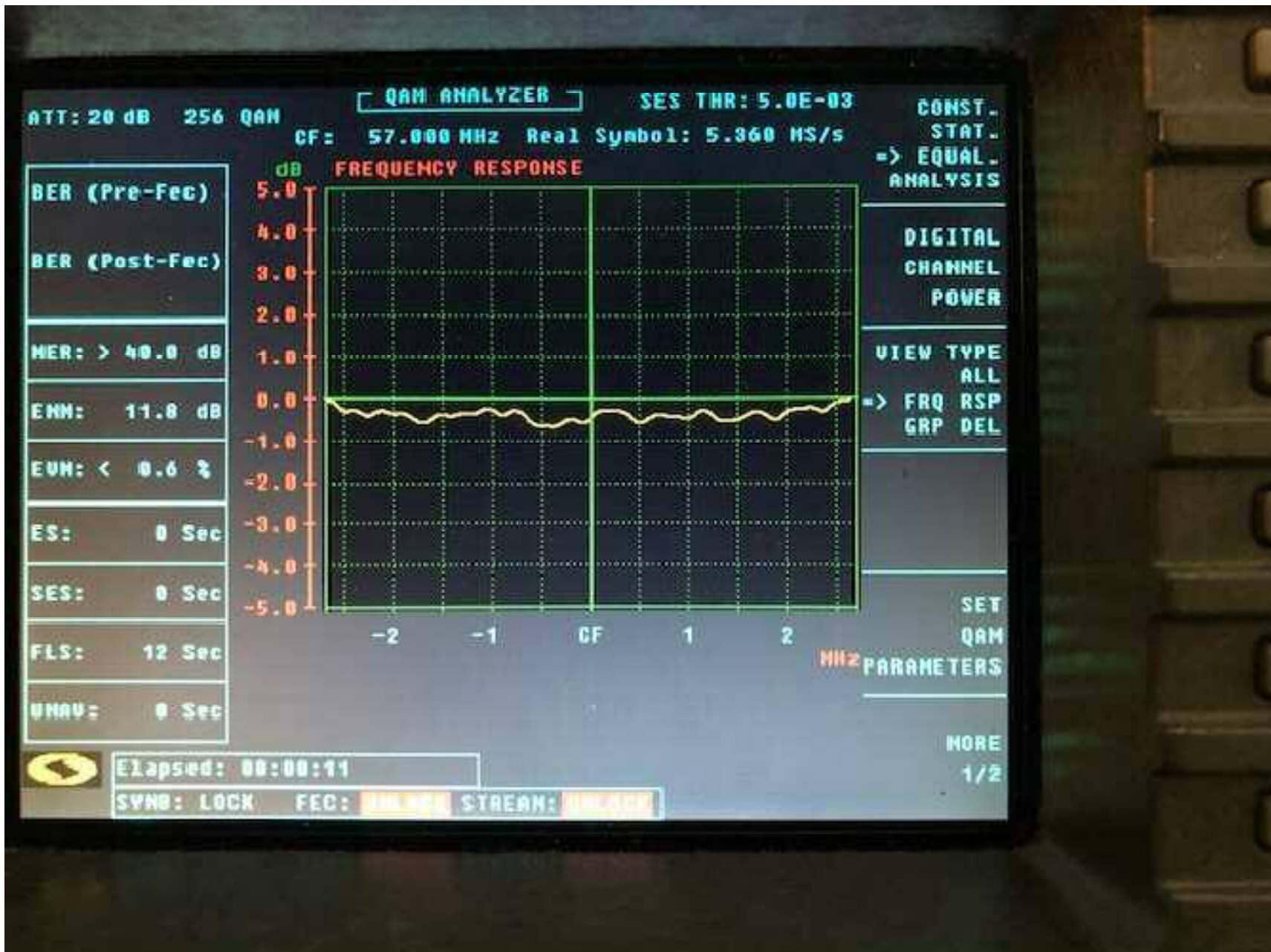
Digital Channel Power measurement on Channel 2 - 256-QAM carrier



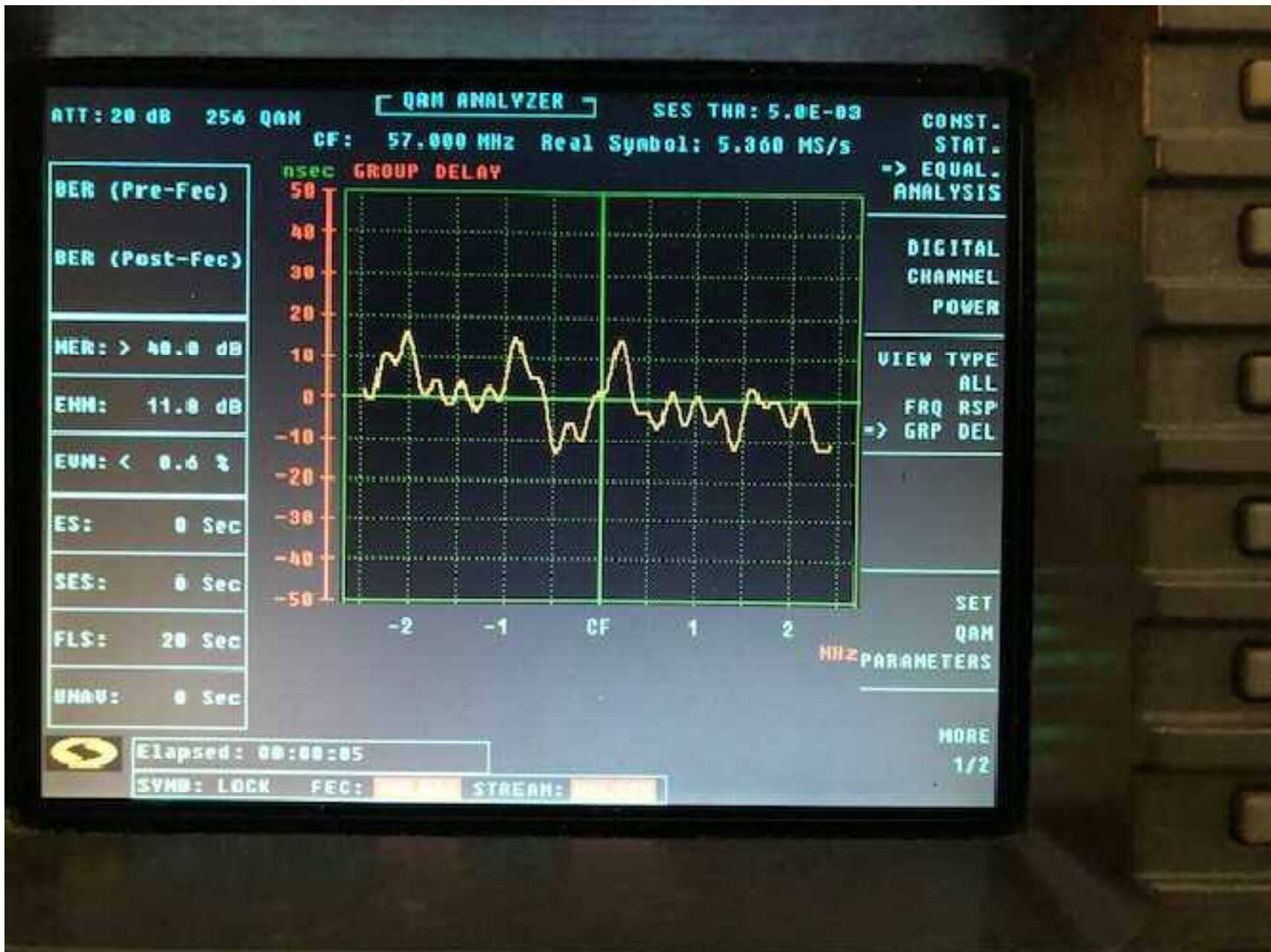
Basic QAM parameters plus the constellation diagram. Channel 2 from a test generator in my lab.



QAM analysis including adaptive equalizer activity, in-channel response, and group delay of Channel 2 test carrier.



In-channel frequency response of Channel 2 QAM test carrier.



Group delay of Channel 2 QAM test carrier.



QAM Impairment Test on Channel 2. Symbol Rate Error failure is due to a known firmware 'bug' that was not fully resolved until version 4 hardware. Symbol Rate Error is not required by SCTE 40 specifications so this does not present a problem for full FCC POP testing compliance.