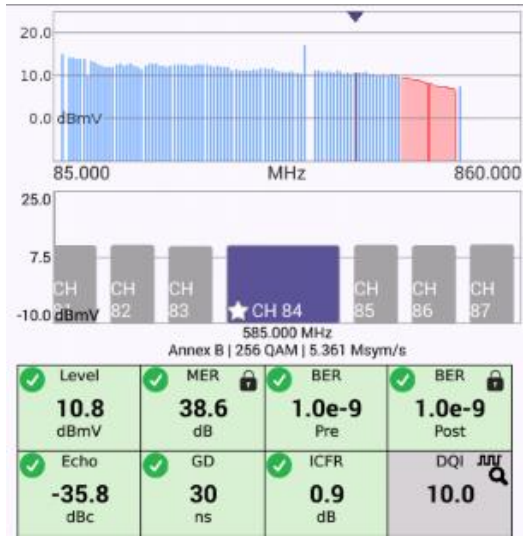
OneExpert CATV
Best RF & DOCSIS 3.1
Testing & Troubleshooting

Realtime testing of all DOCSIS and RF Channels

Channel Modes – Live troubleshooting of all RF carriers

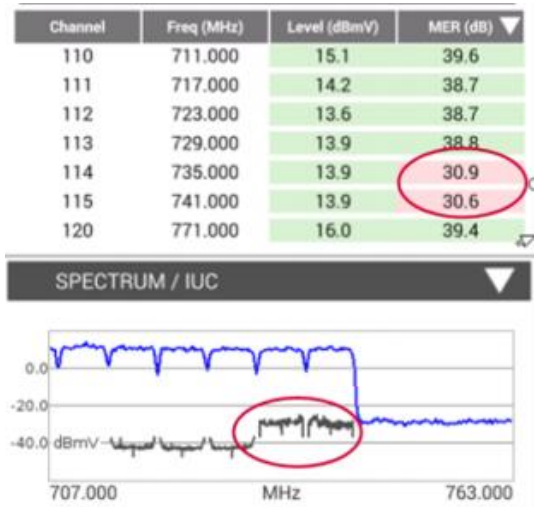
- One Application – All analysis and measurements happening simultaneously
- No more guessing which app to run
- Accessible with finger swipe

Full scan with MER & BER on all carriers

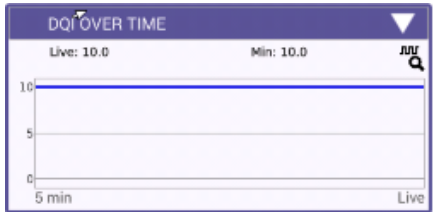


MER > 40dB across -5 +20dBmV full plant with +/- tilt present

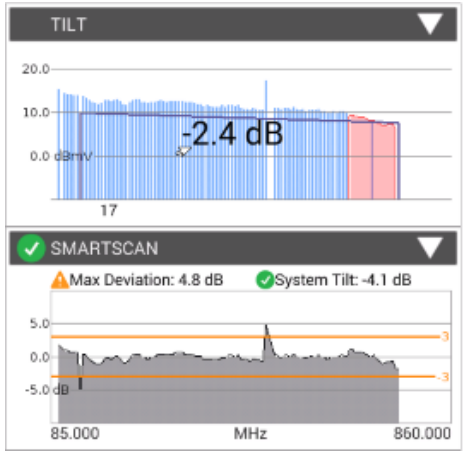
Spectrum and Ingress under carrier including adjacent carriers



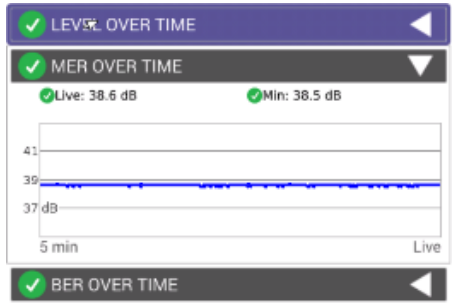
DQI of active selected QAM carrier



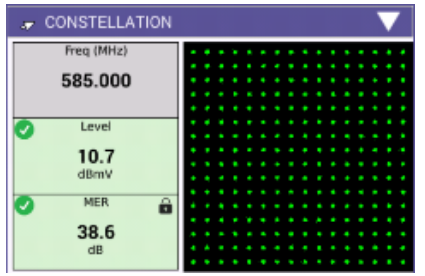
Tilt and SmartScan



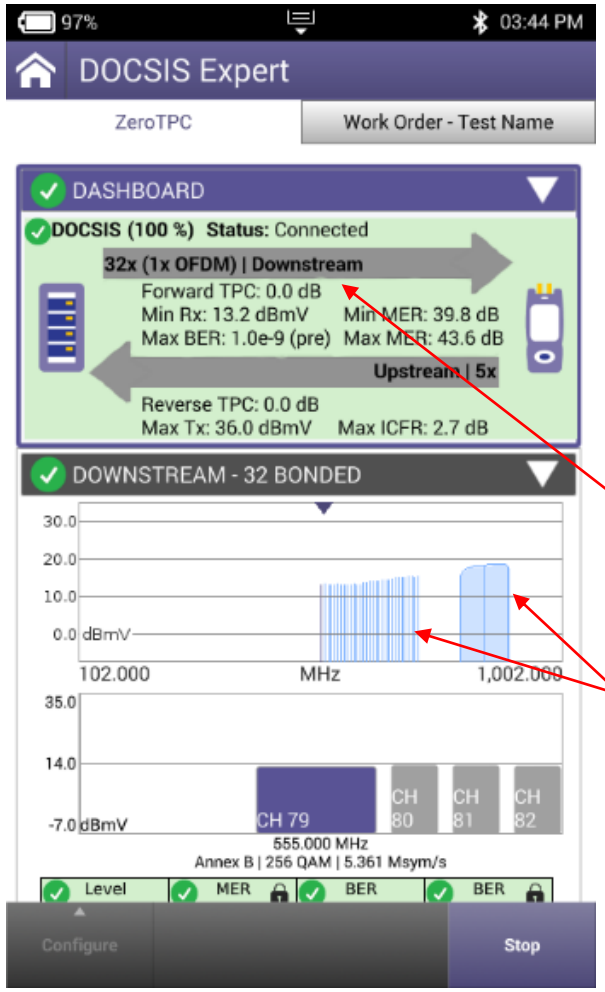
Over time measurements (Level, MER, BER) for all carriers



Constellation



DOCSIS Modes – Live troubleshooting of DOCSIS Downstream Analysis



- RF measurements and DOCSIS service measurements – Same Time – Same Quality
- No waiting and toggling between RF and DOCSIS
- Complete RF and DOCSIS testing of HSD services

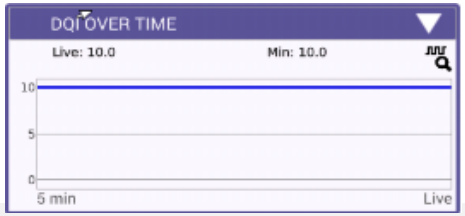
32x8 Bonding + 2 OFDM

Auto identifies carriers

Focused on DOCSIS carriers

MER to 40dB or greater
-5 to +20dBmV
full channel lineup with
+/- tilt present

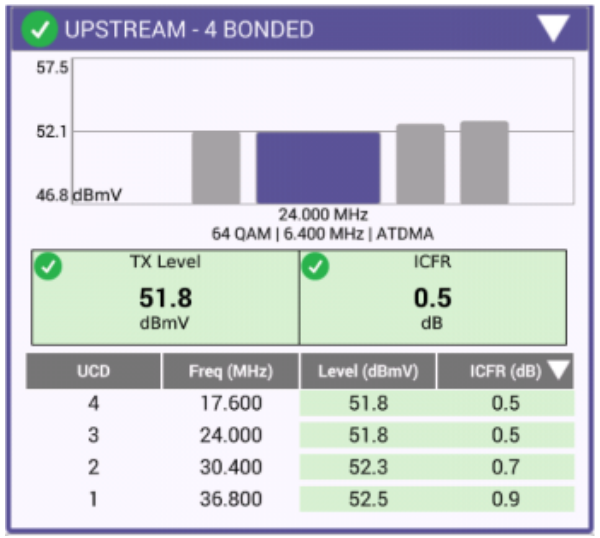
DQI of active selected QAM carrier

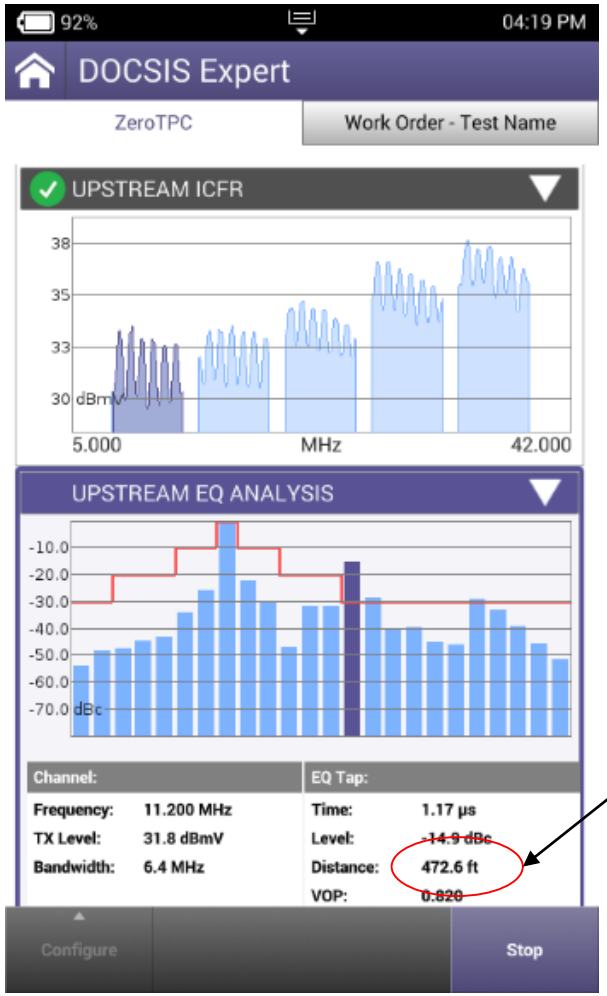


Over time measurements (Level, MER, BER) for all carriers

DOCSIS Modes - Upstream Analysis

Measures transmit power levels, type, and ICFR
Support for 8 QAMs and 2 OFDM-A

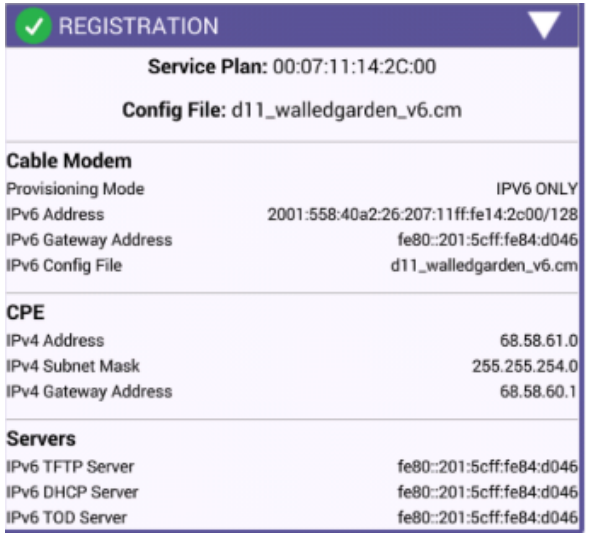




- Upstream EQ analysis helps isolate problems between the home and the network
- E.g Hi reflection EQ tap showing fault at 472 feet – not in house

DOCSIS - Service Analysis

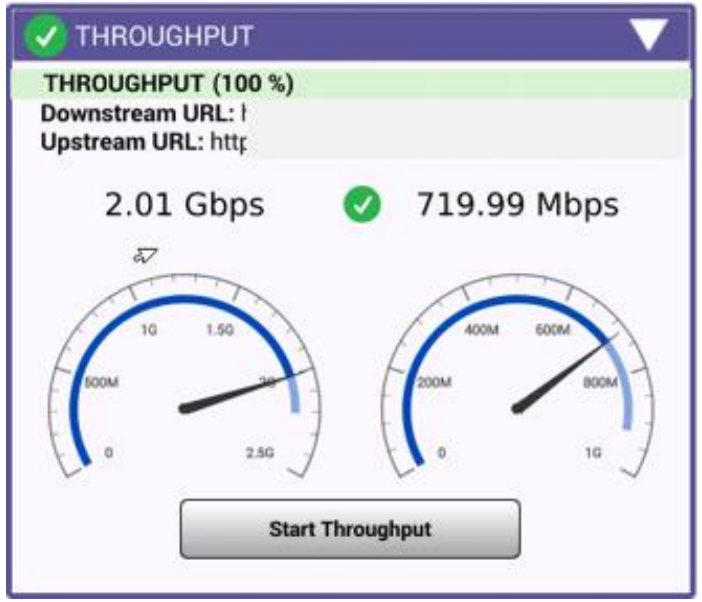
Registration details



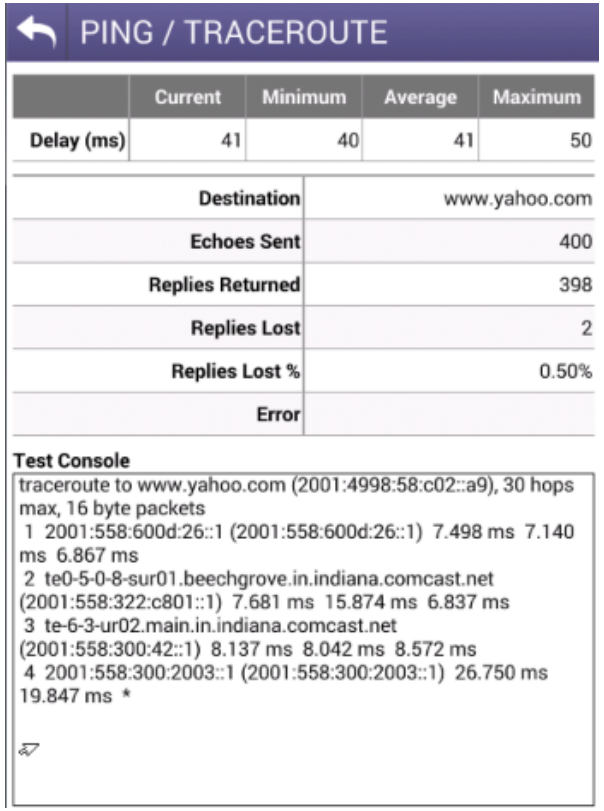
Throughput testing

Downstream >2Gbps

Upstream up to 1Gbps

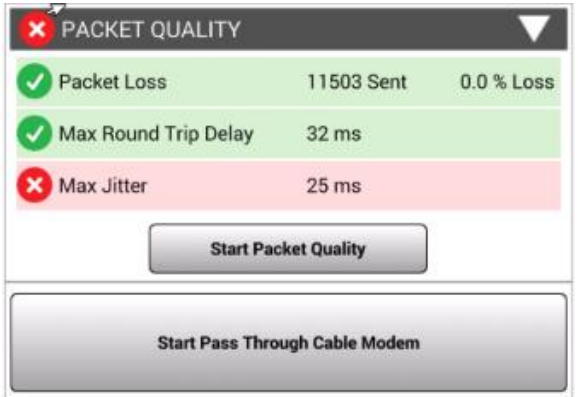


Ping and Traceroute



Packet Quality

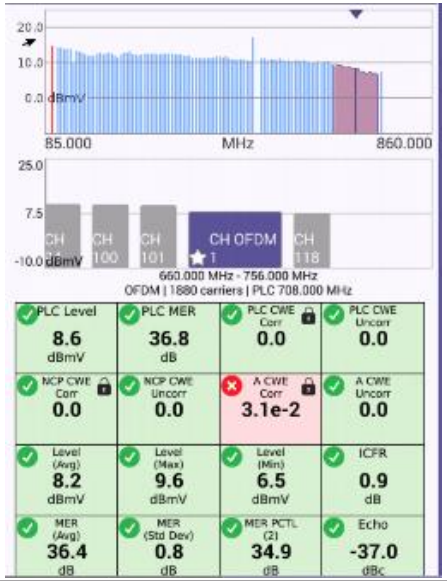
Identify packet issues between modem and CMTS loop (like VoIP Check)



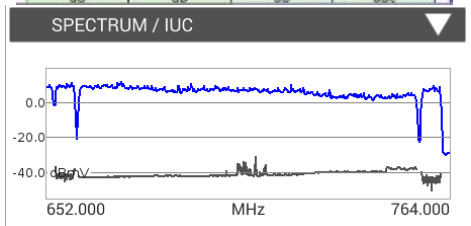
DOCSIS pass through modem on Ethernet port 2

ONX-CATV offers complete DOCSIS 3.1 and OFDM testing

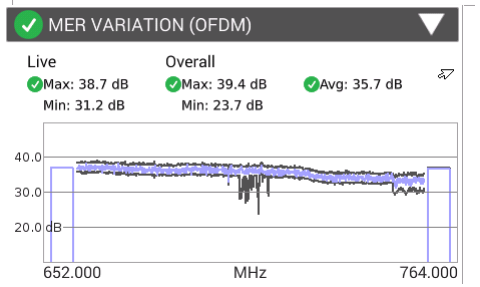
DOCSIS 3.1 Software option enables D3.1 testing



Complete carrier analysis validates OFDM



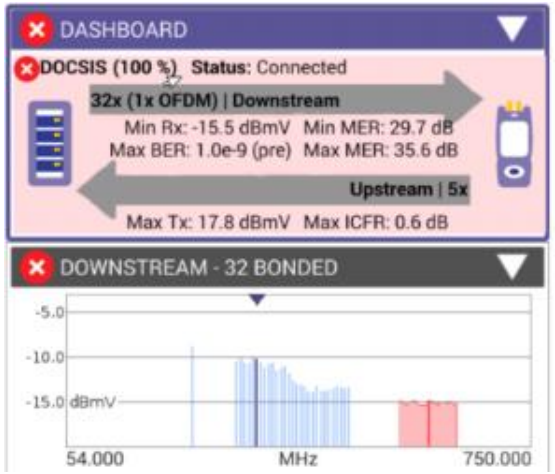
PLC, NCP, Profile A Codeword Errors Level, MER, ICFR and Echo



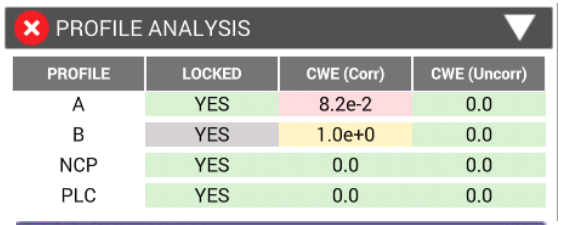
Spectrum with Ingress identifies noise sources

MER across all subcarriers

Range, Register and Bonding – Validates 3.1 operation

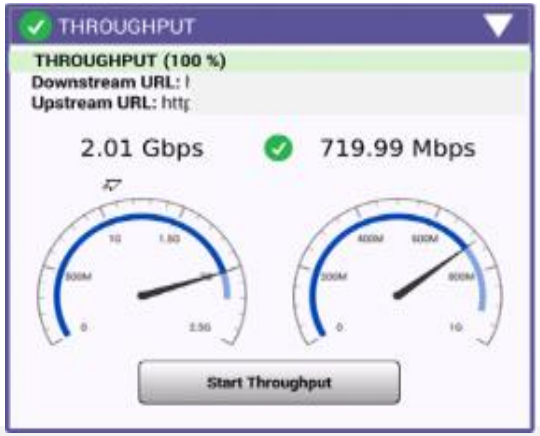


Profile Analysis Ensures maximum efficiency and identifies problems



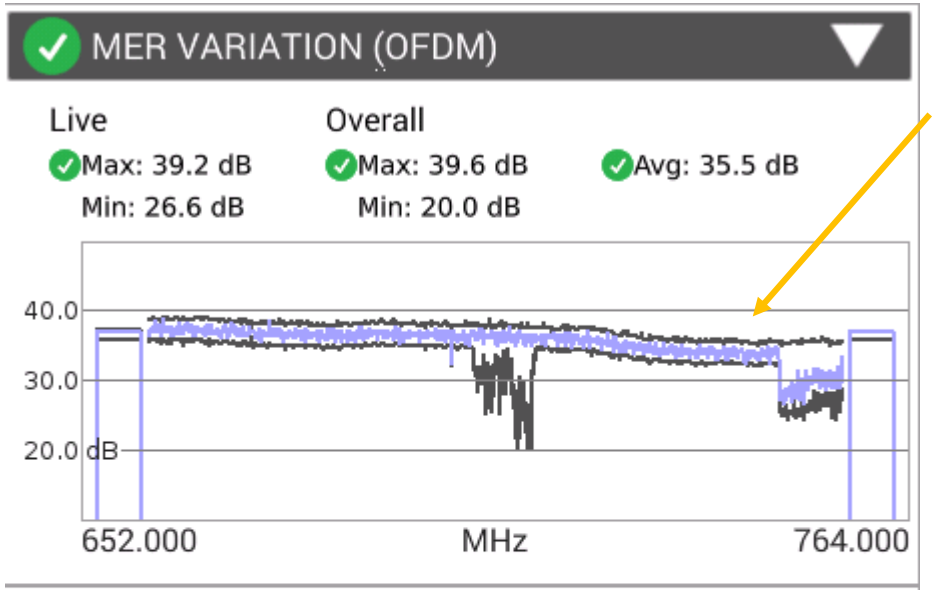
PROFILE	LOCKED	CWE (Corr)	CWE (Uncorr)
A	YES	8.2e-2	0.0
B	YES	1.0e+0	0.0
NCP	YES	0.0	0.0
PLC	YES	0.0	0.0

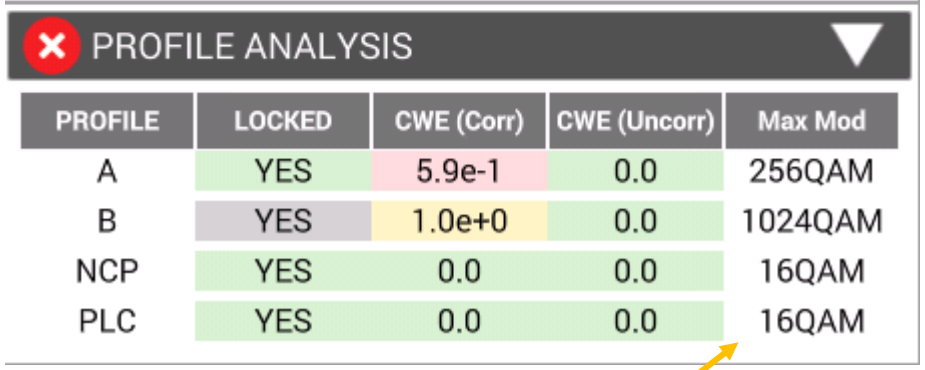
Speed testing beyond 1 Gbps ensures full DOCSIS 3.1 compliance



Expert Modes - MER Per Subcarrier and Profile Max Modulation

Going Deeper into OFDM Subcarriers





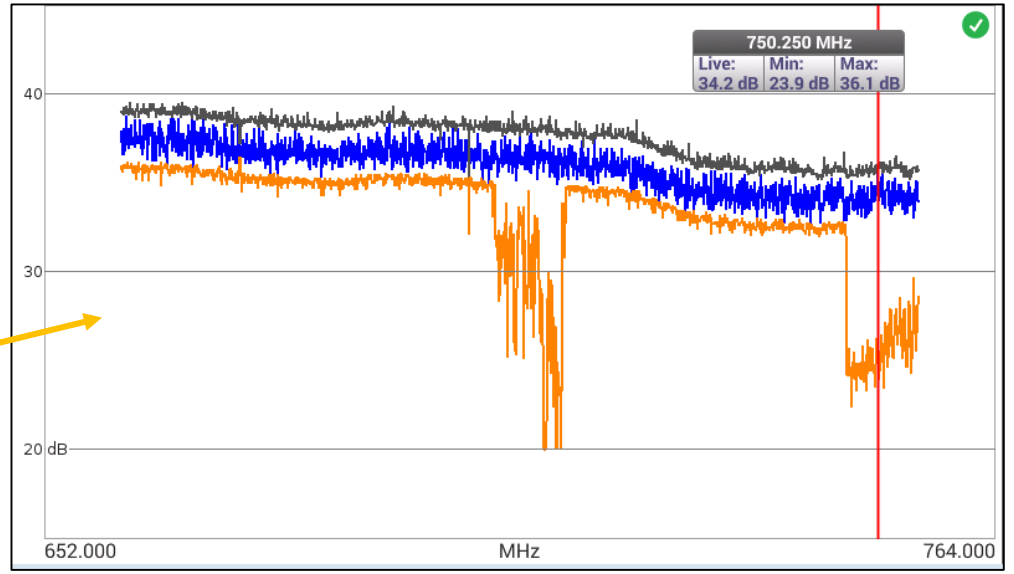
PROFILE	LOCKED	CWE (Corr)	CWE (Uncorr)	Max Mod
A	YES	5.9e-1	0.0	256QAM
B	YES	1.0e+0	0.0	1024QAM
NCP	YES	0.0	0.0	16QAM
PLC	YES	0.0	0.0	16QAM

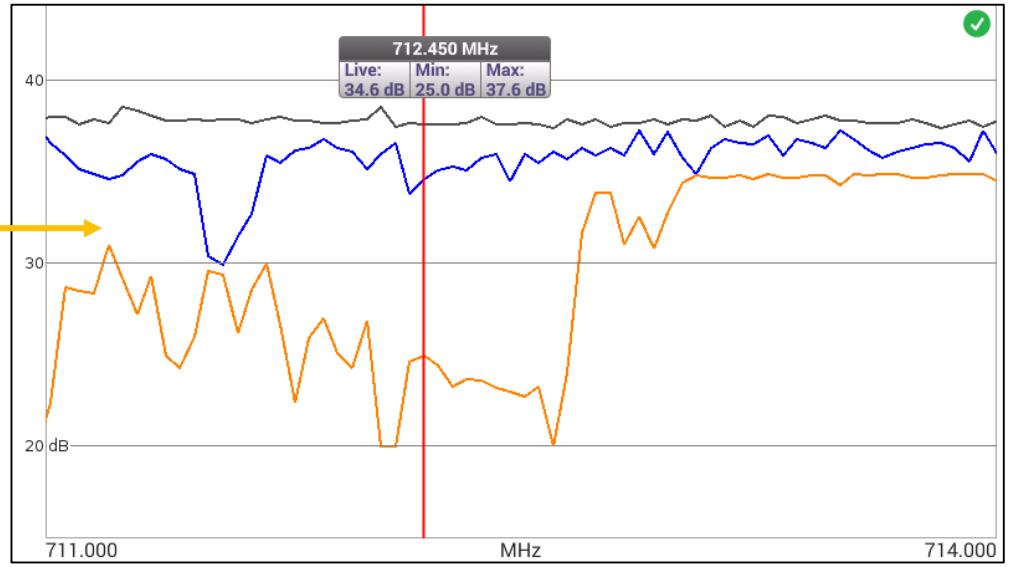
Max Modulation of each profile is listed in Channel & DOCSIS Expert Modes

MER of each subcarrier is plotted side by side

The view can be expanded and a marker added allowing users to see at which frequencies the subcarriers are degraded

With pinch and zoom capabilities users can get all the way down and see more detail of each subcarrier quality





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