EDGEPROBE ADVANCED DVB-C QAM Monitoring at the Headend

Cable distribution monitoring at the Head-End

testtree™

COMBINED WITH A NETWORK MONITORING SYSTEM OR NOT, THE EDGEPROBE ADVANCED PROVIDES A POWERFUL BROADCAST NETWORK ALERT & DIAGNOSIS TOOL ALLOWIN NETWORK OPERATORS TO MONITOR GLOBAL TRENDS AND ANTICIPATE POTENTIAL FAILURES.

EDGEPROBE ADVANCED IS ABLE TO MONITOR DVB-C AND DVB-C2 SIGNALS AT TRANSMITTER OUTPUTS, THROUGH ITS RF INPUTS (UP TO 4 IN 1RU), AS WELL AS AT MODULATOR INPUT AND AT HEAD-END/DISTRIBUTION LINKS, THROUGH ITS ASI AND INPUTS.

APPLICATIONS

- 24/7 Monitoring and Maintenance of both Head-End and TX sites (RF/Baseband)
- Generation of Service Availability reports for Service Level Agreements
- Rebroadcasting receiver: RF to ASI or IP, with transcoding capacities
- Live transmission recorder

BENEFITS

- Standalone, easy to use and configure, fast deployment, SNMP compatible
- Increase customer satisfaction by detecting & preventing Cable network degradations before your customers do
- Reduce TX sites maintenance cost by anticipating and identifying issues
- Plan and improve the network configuration by identifying global trends
- Remotely accessible, compatible with low bandwidth control networks (GPRS/3G)
- Low power consumption 20W

Monitor DVB-C QAM signals at TX output through the RF inputs (up to 4 in 1RU)

Signal Level, MER, BER

Modulation parameters

Baseband monitoring and forwarding over ASI/IP interfaces

Monitor TS baseband distribution links at Head-End output and TX site input through the ASI and IP inputs (up to 4 in 1RU)

Forward the analyzed TS over ASI or IP output

VLAN support on the IP Data link

Complete MPEG-2 TS Monitoring

ETSI TR 101 290 Priority 1, 2, 3

QoS indicators (optional): Service Availability Error & Service Degradation Error

Verify Regionalization: Service Plan view, PID/Service presence, Scrambling

Service & components bitrates

32 GB of internal storage (up to 4 in 1RU)

Alarm logs up to 6 months

RF parameter trends up to 6 months

TS recording (manual trigger)

Dual Power Supply (Hardware option)

One additional Power Supply can be installed on the equipment in order to ensure the power redundancy
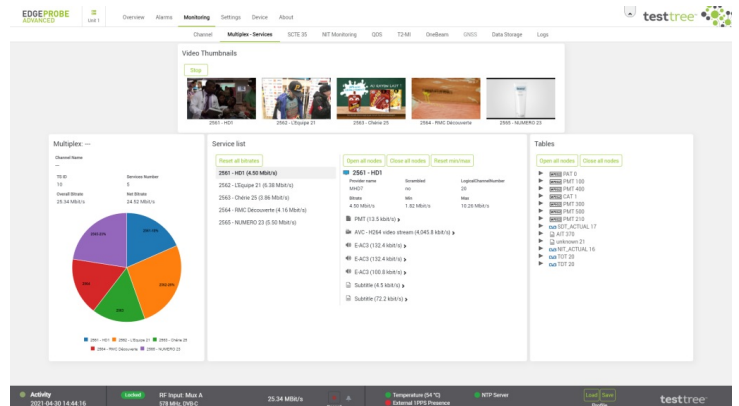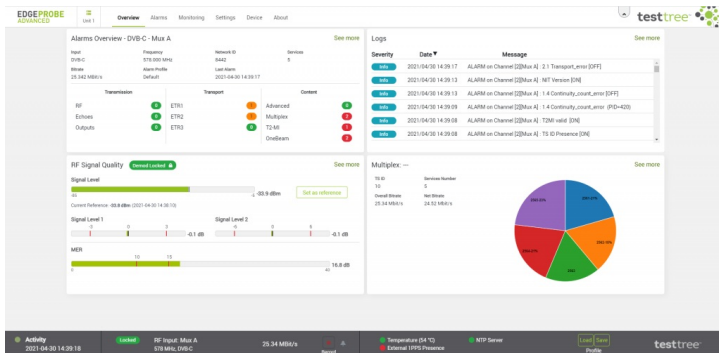
Remote connection

Compatible with all Network Monitoring Systems, providing a powerful network alert & diagnosis tool: monitor global trends and anticipate potential failures.

Compatible SNMP v2c and v2c INFORM for alarming and device configuration

Web GUI access: support of low bandwidth Internet connection (3G, GPRS)

EDGEPROBE ADVANCED DVB-C QAM Monitoring at the Headend

INTERFACES

RF	*
Connector In	Up to 4x RF inputs (N-type female – 50 Ω)
Standard	DVB-C: ITU-J83 Annexes A, B, C (roll-off 0.15), DVB-C2
Frequency range	40 to 1000 MHz
Sensitivity	-80 to -5 dBm
Channel bandwidth	6 & 8 MHz
Symbol rate Modulation	1.8 to 7.2 Msymbols/s
Symbol rate Modulation	16QAM, 64QAM, 128QAM, 256QAM, 1024QAM, 4096QAM
Control	Up to 2x Gigabit Ethernet for Web GUI, SNMP-V2C
Transport Stream (TS)	Up to 4x ASI in/out (BNC-type female – 75 Ω)
*	Up to 4x Gigabit Ethernet for Data in/out (VLAN support)
GNSS & Time Reference	1x GNSS antenna input (SMA-type – 50 Ω) (GPS/GLONASS) HW option, 3.3V antenna power up
*	1x 1PPS input (BNC-type female – 50 Ω)
*	1x 10MHz input (BNC-type female – 50 Ω)

MONITORING FEATURES

RF Monitor	*
Demodulation status	Lock / Unlock
Signal level	-90 to -5 dBm
MER	0 to 40 dB
BER (DVB-C)	Viterbi, RS
BER (DVB-C2)	LDPC, BCH
Modulation parameters	L1 part2 signaling in DVB-C2
TS Monitor Base	MPEG-2 TS Monitor, ETSI TR 101 290 Priority 1 and 2
TS Monitor Advanced	ETSI TR 101 290 Priority 3, QoS (SAE/SDE)
Service Plan	Verify regional services, Service & PID bitrates, Scrambling, Service & PID presence
Scanning	Monitor sequentially multiple channel frequencies over 1 RF input
Extended Memory	32 GB of internal storage for: Event logs up to 6 months, Trends up to 6 months, TS recording

PHYSICAL

Height (1 or 2 monitoring units) : 45 mm / 1.7 in, Width: 440 mm / 17.3 in, Depth: 145 mm / 5.7 in	
Height (4 monitoring units) : 45 mm / 1.7 in, Width: 440 mm / 17.3 in, Depth: 300 mm / 11.8 in	
Format: 1 RU (19"), Power supply: 100-240 VAC ±10%	
Power consumption: 10 W per active monitoring unit	
Redundant Power Supply (HW option)	

ENVIRONMENT

Operating temperature	-20 to 55°C / -4 to 131°F
Storage temperature	-20 to 70°C / -4 to 158°F
Humidity	0 to 95%, non condensing

ORDERING CODES

EdgeProbe Advanced DVB-C/C2	DVB-C QAM Advanced Monitoring Probe
Options	**SW ACCESS** : RF Monitoring, Round-Robin, ETSI TR 101 290 Monitoring (Priorities 1, 2, 3)
	SW PERFORMANCE : RF Monitoring, Round-Robin, ETSI TR 101 290 Monitoring (Priorities 1, 2, 3), Service Plan & Multiplex View
	SW ULTIMATE : RF Monitoring, Round-Robin, ETSI TR 101 290 Monitoring (Priorities 1, 2, 3), Service Plan & Multiplex View, IP Monitoring (Jittering, RTP FEC...)
	EPA3-In200VRedundant : Add 1x redundant 220V AC input in the EPA3 chassis (hardware)
	EPA3-GNSS : Add GNSS support on the module (hardware)