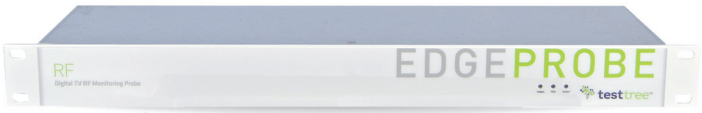
EDGEPROBE RF

DVB T/T2

2 in 1 Integrated Rebroadcasting: Receiver & Monitoring



EDGEPROBE RF IS THE IDEAL & MOST COST-EFFECTIVE HIGH-QUALITY SOLUTION FOR CONTROLING REMOTELY THE SIGNAL TRANSMISSION OF YOUR LOW/MID POWER TX & RELAY SITES THAT ARE SOMETIMES DIFFICULT TO REACH.

Combined with a **Network Monitoring System** or not, the EdgeProbe RF provides a powerful network alert & diagnosis tool, allowing DTV network operators to monitor global trends and anticipate potential failures.

EdgeProbe RF is able to monitor **DVB-T** and **DVB-T2** signals at transmitter outputs through its **RF input**. It can continuously log all events & measurement values in an archive file, and can send SNMP traps if selected parameters' values exceed defined thresholds. For troubleshooting, a low bandwidth Web GUI gives access to all monitored parameters, from RF to baseband.

EdgeProbe RF provides signal monitoring at different levels:
• **RF transmission**: measures key RF signal parameters (Level, MER, SNR, BER) and indicates the modulation parameters as well as the **Channel Impulse Response** (CIR).
• **MPEG-2 TS**: checks the ETSI TR 101 290 (Priority 1, 2 & 3) conformance and provides optional Quality of Service indicators (Service Availability, Service Degradation).

The **Service Plan** provides the means to check the **description of your multiplexes** and verify your **regional services**.
The **Scanning** provides a powerful tool for **sequential monitoring** of **multiple channels** (frequencies/PLPs) with a single probe.

With its **ASI output** it can also be used as a **powerful rebroadcasting receiver**, while the **IP forward** is the gateway from RF to IP networks.

NEW Coupled with a **TRANSBOX** device, EdgeProbe RF provides **service compression** (transcoding) and **streaming** to third-party analysis systems for **confidence monitoring**.

APPLICATIONS

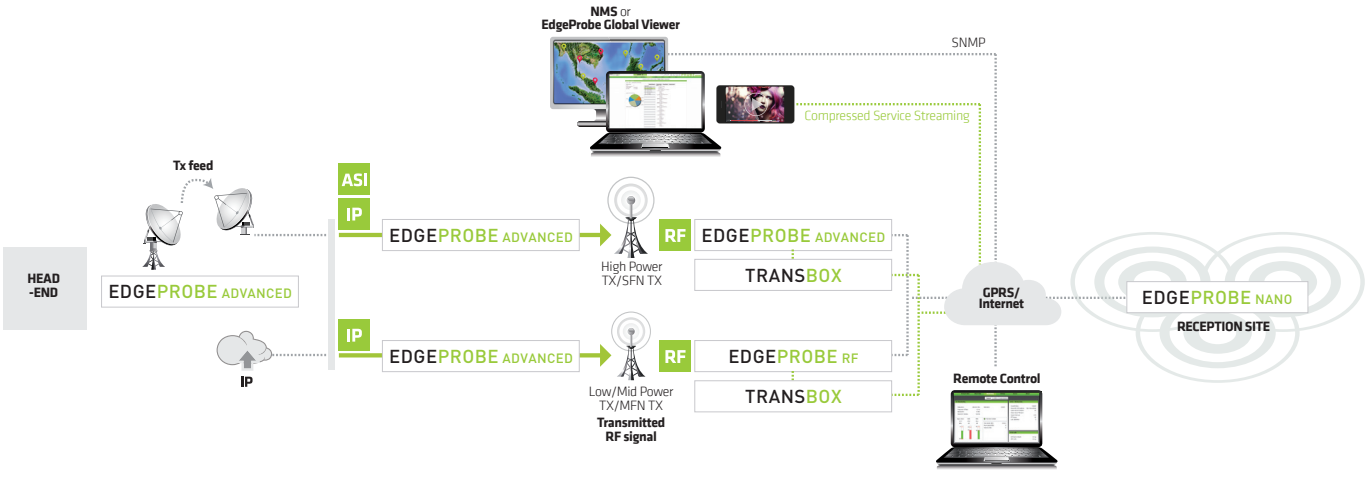
- **24/7 Monitoring** and Maintenance of **DVB-T/T2 live transmission** networks
- **Cost-effective** Monitoring of transmitters and relay sites
- Generation of **Service Availability reports** for Service Level Agreements
- Rebroadcasting receiver: RF to ASI or IP
- Live transmission recorder

BENEFITS

- **Standalone, easy to use and configure**, fast deployment, SNMP compatible
- Increase customer satisfaction by **detecting & preventing DTV network degradations** before your customers do
- **Reduce TX sites maintenance cost** by anticipating and identifying issues
- Automated & Secure Deployment for small to large networks
- Remotely accessible, compatible with **low bandwidth control networks** (GPRS/3G)
- Low power consumption 8W

CHARACTERISTICS

1x RF in, 1x ASI out, 1x IP Control/Data in/out (VLAN support) in 1 RU
DVB-T, DVB-T2, DVB-T2 Lite support
RF accurate measurements: signal level, SNR, MER, BER
Channel Impulse Response monitoring
Multiplex & Service Plan check
ETSI TS 101 290 validation: Priority 1, 2, 3 and QoS SAE/SDE
MPEG-2 TS over ASI out or IP forward for video QoE monitoring
Service Compression and Streaming via TRANSBOX
32 GB storage for MPEG-2 TS record and 6 months logs & trends



INTERFACES

Control/Data	1x Gigabit Ethernet for Web GUI, SNMP-V2C and IP Data in/out (VLAN support)
RF	1 x RF input (N-type female - 50 Ω)
Standard	DVB-T, DVB-T2 (including 1.3.1), DVB-T2 Lite
Frequency range	40 to 1000 MHz
Sensitivity	-80 to -5 dBm
Channel bandwidth	1.7, 5, 6, 7 & 8 MHz
MPEG-2 TS	1x ASI output (BNC-type female - 75 Ω)

MONITORING FEATURES

RF Monitor	
Demodulation status	Lock / Unlock
Signal level	-90 to -5 dBm ±1 dBm, typically ±0.5 dBm, resolution 0.2 dBm
MER	0 to 40 dB (0 to 36 dB: ±1 dB, 36 to 40 dB: ±2 dB)
SNR	0 to 40 dB ±1 dB
BER (DVB-T)	Pre/Post-Viterbi, Post-RS
BER (DVB-T2)	Pre/Post-LDPC, Post-BCH
Modulation parameters	L1 signaling in DVB-T2, TPS in DVB-T
Channel Impulse Response (CIR)	
TS Monitor Base	ETSI TR 101 290 Priority 1 and 2
TS Monitor Advanced	ETSI TR 101 290 Priority 3
QoS Monitor	SAE (Service Avaibility Error) SDE (Service Degradation Error)
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
TRANSBOX	Combined with a TRANSBOX device, EdgeProbe RF provides service compression (transcoding) and streaming to third-party analysis systems

DVB-T2 RF Channel monitoring view

Channel Impulse Response monitoring view

PHYSICAL

Height: 45 mm / 1.7 in, Width: 440 mm / 17.3 in, Depth: 130 mm / 5.1 in
Format: 1 RU (19''), Power supply: 100-240 VAC ±10%
Power consumption: 8W

ENVIRONMENT

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

ORDERING CODES

EdgeProbe RF	**DVB-T/T2 RF Monitoring Probe**	
Included	**RF to ASI, RF to IP, RF + CIR monitoring, VLAN**	
SW options	**Scanning**	Multiple RF channels sequential monitoring over 1 RF input
	TS Monitor Base	ETR290 Priority 1, 2 monitoring
	TS Monitor Advanced	ETR290 Priority 3 monitoring
	QoS Monitor	SAE, SDE monitoring
	Service Plan	Multiplex Service/PID monitoring
	Extended Memory	32 GB storage: trends, logs, TS record
HW options	**TRANSBOX**	Stream 1 or 2 compressed service(s)
	Tropicalization	Preserve the HW from corrosion

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