

# EDGEPROBE RF

DVB-T/T2

2 in 1 Integrated Rebroadcasting: Receiver & Monitoring



**EDGEPROBE RF IS THE IDEAL & MOST COST-EFFECTIVE HIGH-QUALITY SOLUTION FOR CONTROLLING 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

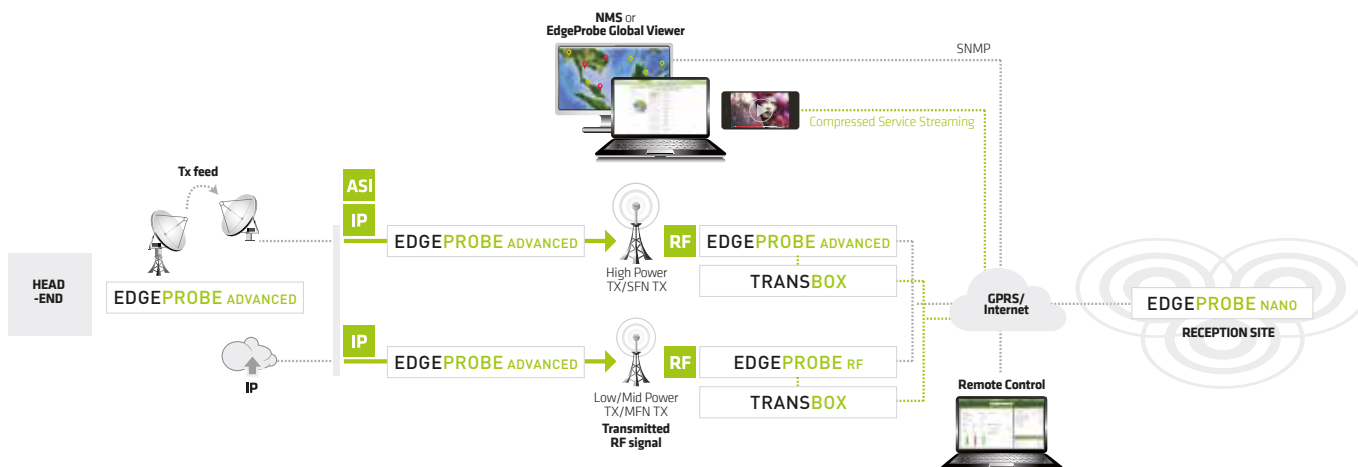
- **24/7 Monitoring** and Maintenance of **DVB-T/T2 live transmission** networks
- **Cost-effective** Monitoring of transmitters and relay sites
- Generation of **Service Availability reports** for Service Level Agreements
- Rebroadcasting receiver: RF to ASI or IP
- Live transmission recorder

## 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 QoS monitoring
Service Compression and Streaming via TRANSBOX
32 GB storage for MPEG-2 TS record and 6 months logs & trends



## INTERFACES

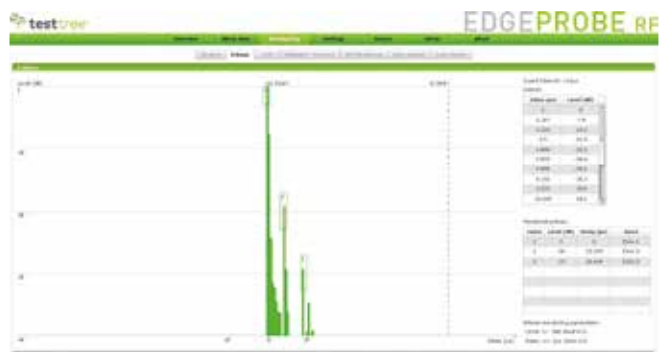
<b>Control/Data</b>	1x Gigabit Ethernet for Web GUI, SNMP-V2C and IP Data in/out (VLAN support)
<b>RF</b>	1 x RF input (N-type female - 50 Ω)
Standard	DVB-T, DVB-T2 (including 1.3.1), DVB-T2 Lite
Frequency range	40 to 1000 MHz
Sensitivity	-80 to -5 dBm
Channel bandwidth	1.7, 5, 6, 7 & 8 MHz
<b>MPEG-2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

## MONITORING FEATURES

<b>RF Monitor</b>	
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)	
<b>TS Monitor Base</b>	ETSI TR 101 290 Priority 1 and 2
<b>TS Monitor Advanced</b>	ETSI TR 101 290 Priority 3
<b>QoS Monitor</b>	SAE (Service Availability Error) SDE (Service Degradation Error)
<b>Service Plan</b>	Verify regional services Service & PID bitrates, Scrambling, Service & PID presence
<b>Scanning</b>	Monitor sequentially multiple channel frequencies over 1 RF input
<b>Extended Memory</b>	32 GB of internal storage for: <ul style="list-style-type: none"> <li>· Event logs up to 6 months</li> <li>· Trends up to 6 months</li> <li>· TS recording</li> </ul>
<b>TRANSBOX</b>	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
<i>Included</i>	<b>RF to ASI, RF to IP, RF + CIR monitoring, VLAN</b>
<i>SW options</i>	<b>Scanning</b> Multiple RF channels sequential monitoring over 1 RF input <b>TS Monitor Base</b> ETR290 Priority 1, 2 monitoring <b>TS Monitor Advanced</b> ETR290 Priority 3 monitoring <b>QoS Monitor</b> SAE, SDE monitoring <b>Service Plan</b> Multiplex Service/PID monitoring <b>Extended Memory</b> 32 GB storage: trends, logs, TS record
<i>HW options</i>	<b>TRANSBOX</b> Stream 1 or 2 compressed service(s) <b>Tropicalization</b> Preserve the HW from corrosion