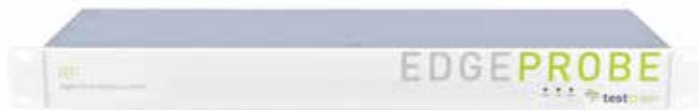


EDGEPROBE RF

ISDB-T/Tb

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 **ISDB-T/Tb** signals at transmitter outputs through its **RF input**. It can continuously logs 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 remote 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 (**TMCC, Layers A/B/C**) as well as the **Channel Impulse Response (CIR)**.
- **Transport Stream:** checks the ETSI TR 101 290 (Priority 1, 2 & 3) conformance and provides optional Quality of Service indicators (Service Availability, Service Degradation).
- **BTS:** IIP and TMCC packets monitoring.

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) 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

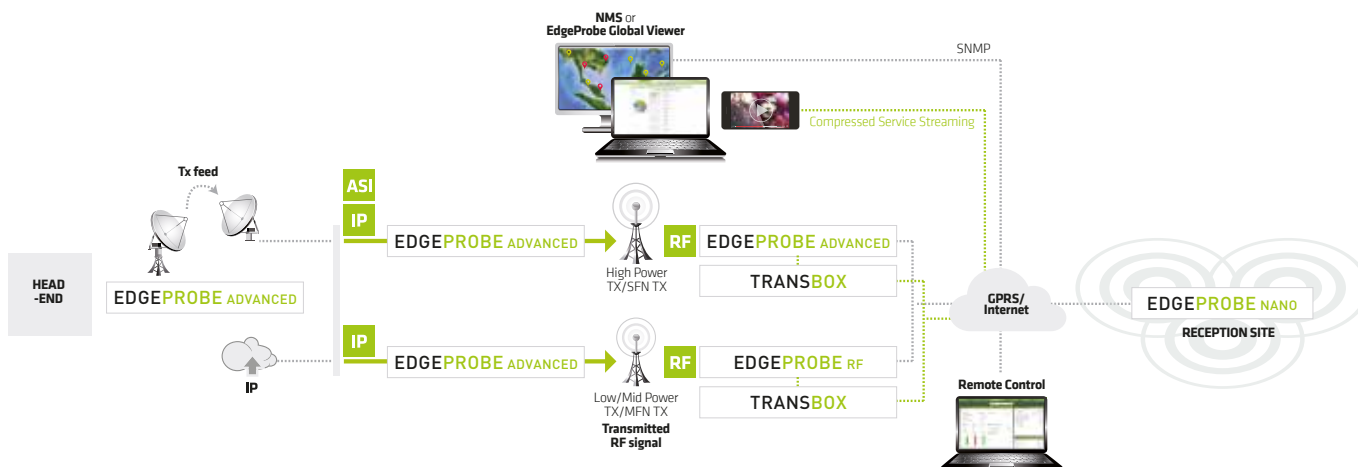
- **24/7 Monitoring** and Maintenance of **DTV live transmission** networks
- **Cost-effective** Monitoring of transmitters and relay sites
- Generation of **Service Availability reports** for Service Level Agreements
- **Rebroadcasting** receiver: RF to ASI or IP
- Live transmission recorder

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 |
| ISDB-T/Tb 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 |
| BTS monitoring: IIP, TMCC packets monitoring |
| 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

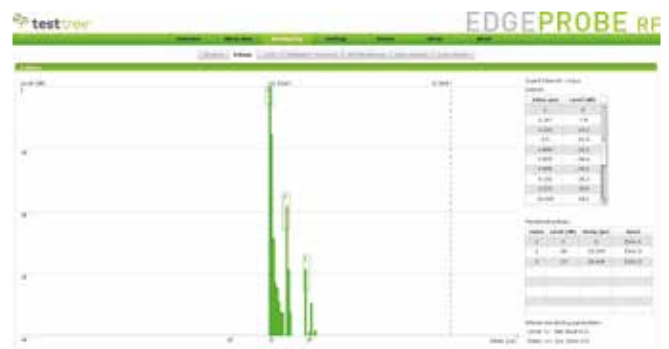
| | |
|------------------------------|---|
| Control/Data | 1x Gigabit Ethernet for Web GUI, SNMP-V2C and IP Data in/out (VLAN support) |
| RF | 1 x RF input (N-type female - 50 Ω) Standard DVB-T, DVB-T2 (including 1.3.1), DVB-T2 Lite Frequency range 40 to 1000 MHz Sensitivity -80 to -5 dBm Channel bandwidth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

MONITORING FEATURES

| | |
|----------------------------|---|
| RF Monitor | Demodulation status Lock / Unlock Signal level -90 to -5 dBm MER 0 to 40 dB SNR 0 to 40 dB BER Post-Viterbi, Post-RS per Layer A/B/C Modulation parameters TMCC, Layer A/B/C Channel Impulse Response (CIR) |
| BTS Monitor | IPP, TMCC packets monitoring |
| TS Monitor Base | ETSI TR 101 290 Priority 1 and 2 |
| TS Monitor Advanced | ETSI TR 101 290 Priority 3 |
| QoS Monitor | SAE (Service Availability 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 Nano provides service compression (transcoding) and streaming to third-party analysis systems |



ISDB-T 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 | ISDB-T/Tb RF Monitoring Probe |
|-------------------|--|
| <i>Included</i> | RF to ASI, RF to IP, RF + CIR monitoring, VLAN, BTS monitoring |
| <i>SW options</i> | 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 |
| <i>HW options</i> | TRANSBOX Stream 1 or 2 compressed service(s) Tropicalization Preserve the HW from corrosion |