**Features**

- Remote 24/7 analysis and monitoring of DVB-C broadcasts
- MPEG PSI table Monitoring – SDT, NIT, PMT, TOT, TDT, CAT
- PID Alarms – monitoring digital audio and video channels for all available RF channels
- Comprehensive transport analysis, including ETR 101 290 priority level 1, 2 and 3 errors
- Scans and reports on complete band of DVB-C
- Programmable sampling rate
- Embedded web server for easy configuration and control
- E-mail notifications and alarms for timely support
- SNMP, Alarms and Log
- Measures MER, BER, VBER, CBER, C/N, SNR, level
- Easy to set up and configure. No NMS software required. Just enter the web site of the device.
- Logs alarm messages with accurate time for all available RF channels
- SNMP configuration and control for large CATV broadcast networks
- Future proof – supports remote firmware upgrades
- Supports ITU-J.83 annexes A and C
- Extremely competitive price

**Applications**

- Monitor DVB-C headends for corrupted signals or carrier loss
- Monitor remote points of CATV networks
- Monitor DVB-C broadcasts in remote areas
- Comply with legal requirements for monitoring broadcast channels

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**Overview**

Inexpensive RF monitoring tools can lead to ever greater quality and reliability of signals emanating from head ends. The KRIO II – ETR 290 DVB-C is designed to provide you with a comprehensive RF based analysis tool. Through its powerful search engine, the KRIO is able to monitor all available channels.

The KRIO II – ETR 290 DVB-C is specially built for CATV networks who want to provide their clients with quality service round the clock. This can only be achieved with constant monitoring of critical parameters.

The KRIO II – ETR 290 DVB-C is a powerful and professional yet affordable solution for standalone TV monitoring at the transmitter site or within the coverage area. Through RF inputs, the unit sequentially monitors a set list of channels and continuously ensures that your DVB network meet both legal requirements and your operating goals.

With its Ethernet interface, the KRIO II – ETR 290 DVB-C can be controlled remotely using the user-friendly embedded web site or an SNMP-Based network management system. The system offers innovative functions such as multi-channel monitoring (up to 240 channels per receiver), automatic scanning, and remote control.

The KRIO II – ETR 290 DVB-C can scan the DVB-C signal for one or two minutes. The measured results are represented in charts on the embedded web server. Without any special software, just enter the IP address of the device in your web browser and it will display all subchannels in your cable network.
Inputs/Outputs

LAN  RF In       RF In           Power
#1              #2

Specifications

Communication Ports
Ethernet: 100 BaseT – Web Server and UDP/TCP (SNMP/ASCII)

Frequency Range and Modulation
Frequency range: 46 MHz - 1004 MHz
Digital RF: DVB-C
Analog RF: NTSC, PAL/SECAM

Demodulator
- DVB-C: ETSI EN 300 429 and ITU J.83 Annex A/C
- Supports: QPSK/16/32/64/128/256QAM
- Bandwidth: 6 MHz/7 MHz/8 MHz
- Symbols rate: 1MS/S-7MS/S
- COFDM: 2k, 4k, 8k

Measurements
- Standard: ETSI TR 101 290 V1.2.1
- Level (Voltage Level): 30dBuV - 100dBuV (±2dBuV)
- MER: 19dB - 45dB (±2dB)
- C/N: 19dB - 45dB (±2dB)
- SNR: 19dB - 55dB (±2dB)
- BER (for DVB-C): 1E-1~ 1E-7

MPEG Decoding
- PSI Tables: PAT, PMT, SDT, TDT, TOT
- Alarms: Service Audio/Video alarms with e-mail notifications and SNMP traps

TR 101 290 Alarms
- Priority 1 Alarms: TS Lock, PAT Interval, Continuity, PMT Interval, Missing PID
- Priority 2 Alarms: Transport error indicator, CRC, PCR Interval, PTS Interval, CAT
- Priority 3 Alarms: NIT Interval, SI repetition rate, Unreferenced PID, SDT Interval, EIT Interval, RST, TDT Interval
- CA Alarms: ECM Maximum Interval, Scrambling change interval, EMM minimum bitrate

SFN Measurements & Alarms
- SFN Impulse delay: -30000μs to 30000μs (±4μs)
- SFN Drift: 0μs to 1000μs (±4μs) absolute value
- SFN Network delay: 0μs to 1000μs (±4μs)
- GPS Lock: Alarm
- MIP packet: Alarm

Monitoring
- Alarms: Carrier count, Level (low, high), SNR (low), C/N (low), MER (low), BER (high), CBER (high), VBER (high), PAT/PMT/Audio/Video missing alarm
- Log, E-mail, SNMP traps: Available

Info
- Updates: Available
- Front Panel LEDs: Power supply, LAN, Alarm

Physical & Power
- Voltage: 115V, 230V
- Voltage Tolerance: +/- 10%
- Main AC Frequency: 45-65 Hz
- Fuse: 0.8A
- Consumption: 10 VA
- Dimensions (W x D x H): 19 x 8.66 x 1.75 inches (483 x 220 x 44.5 mm)
- Weight: 5.5 lbs. (2.5 Kg)

Ordering Information

KRIO II – ETR 290 DVB-C
Options: SFN, Alarm Profiles

Sample of GUIs

RF Configuration

Service Alarms

Active Alarms

TR 101 290 Alarms

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