

KRIO II – ETR 290™ DVB-T-T2

Affordable yet comprehensive device for remote 24/7 full ETR 290 monitoring and error logging of complete band of DVB-T-T2 RF and the embedded stream. Decodes and monitors RF parameters and ETR 290 compatibility and errors in MPEG transport streams (PAT, PMT, NIT, SDT, CAT, TDT, and TOT). With its powerful carrier search engine, it is able to find and analyze all available RF channels. Detects missing audio or video streams. Measures and reports via email the essential parameters of both RF and digital signals at an exceptional price/quality ratio. RF coax input.

Features

- Remote 24/7 analysis and monitoring of DVB-T and DVB-T2 broadcasts
- MPEG PSIP 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-T-T2
- 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 DVB-T/T2 broadcast networks
- Future proof – supports remote firmware upgrades
- Extremely competitive price

Applications

- Monitor DVB-T headends for corrupted signals or carrier loss
- Monitor DVB-T broadcasts in remote areas
- Comply with legal requirements for monitoring broadcast channels



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-T-T2 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-T-T2 is specially built for DVB-T-T2 broadcasters who want to provide their clients with quality service round the clock. This can only be achieved with constant monitoring of critical parameters.

Through RF inputs, the unit sequentially monitors a set list of channels and continuously ensures that your network meets both legal requirements and your operating goals.

With its IP based management interface, the KRIO II – ETR 290 DVB-T-T2 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-T-T2 can scan the DVB-T or DVB-T2 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 network.



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RF Status

Name	SID	Frequency	DVB	Alarm	Update
BTU	2	698 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
NOVA TV	3	698 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
Program 4	4	698 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
BG on AIR	8	698 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
BNT1	1	770 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
BNT2	10	770 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
BNT1_HD	12	770 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
BNT HD	19	770 MHz	DVB-T	AUDIO&VIDEO -	UPDATE
Folklor TV	5480	650 MHz	DVB-C	AUDIO&VIDEO -	UPDATE
Planeta TV	5500	650 MHz	DVB-C	AUDIO&VIDEO -	UPDATE
Planeta Folk	5520	650 MHz	DVB-C	AUDIO&VIDEO -	UPDATE

Service Alarms

Alarm	Mode	Frequency	Value	Threshold
CARRIER: LOST	DVB-T (1)	698 MHz	-	-
CARRIER: LOST	DVB-T	770 MHz	-	-
CARRIER: LOST	ATV	543.250 MHz	-	-
LEVEL: LOW	ATV	519.250 MHz	48 dBuV	50 dBuV
LEVEL: LOW	DVB-C	450 MHz	49 dBuV	50 dBuV
BER: HIGH	DVB-C	450 MHz	<1.0E-7	1.0E-7

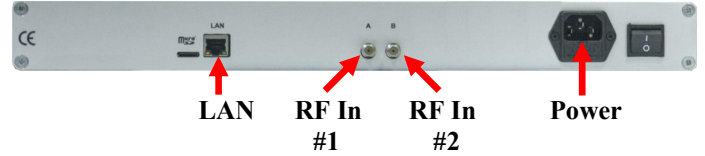
Active Alarms

Priority 1	Alarm	Priority 2	Alarm	Priority 3	Alarm
<input type="checkbox"/>	TS Lock:	<input type="checkbox"/>	Transport err.:	<input type="checkbox"/>	NIT: 10000 ms
<input type="checkbox"/>	PAT: 600 ms	<input type="checkbox"/>	CRC:	<input type="checkbox"/>	SI rep. rate:
<input type="checkbox"/>	Continuity:	<input type="checkbox"/>	PCR: 50 ms	<input type="checkbox"/>	Unreferenced PID:
<input type="checkbox"/>	PMT: 600 ms	<input type="checkbox"/>	PTS: 800 ms	<input type="checkbox"/>	SDT: 2500 ms
<input type="checkbox"/>	Missing PID:	<input type="checkbox"/>	CAT:	<input type="checkbox"/>	EIT: 5000 ms
				<input type="checkbox"/>	RST:
				<input type="checkbox"/>	TDT: 31000 ms

TR 101 290 Alarms

Ordering Information

KRIO II – ETR 290 DVB-T-T2
Options: SFN, Alarm Profiles



Specifications

Communication Ports

Ethernet:	100 BaseT – Web Server and UDP/TCP (SNMP/ASCII)
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Frequency Range and Modulation

Frequency range:	46 MHz - 1004 MHz
Digital RF:	DVB-T, DVB-T2
Analog RF:	NTSC, PAL/SECAM

Demodulator

DVB-T:	ETSI EN 300 744
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)
CBER, VBER (DVB-T):	1E-1 ~ 1E-7
LBER (DVB-T2):	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), 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)