

DVB-T Monitoring Probe



- Real-time measurements / analysis - - Channel signal loss
- Up to 10 different transport streams - - MER, CBER, VBER, C/N, EVM
- Channel Zapping - - MPEG error detection
- Individual channel configuration - - Detailed PIDs statistics
- Remote access and management - - Transport streams video playback

RF Status

Modulation Info

- Sync: Synchronized
- Channel Bandwidth: 8 MHz
- Transmission Mode: 8K
- Guard Interval: 1/32
- Modulation: 64 QAM
- Hierarchy: Non hierarchical
- Code Rate (HP): 1/2
- Code Rate (LP): -
- Cell ID: 105

RF Measures

- Operation Mode: Zapping
- Channel: 21
- MER (rms): 38.13 dB
- EVM (rms): 0.99 %
- C/N: $(6.0 \times 10^{-5}, 3.0 \times 10^{-5})$
- CBER: $> 10^{-2}$
- VBER: -45.32 dBm
- Rx Level: 61.68 dBuV
- Field Level: -2.48m
- IF Level: -

PMTs in PAT

	PID	Program Number	PCR PID	Service Name
+	257	3309	518	SAT2000
+	258	3305	512	Rai Sport pil
+	261	3307	514	Rai Edu1
+	263	3311	670	RADIOUNO
+	264	3312	671	RADIOUE
+	265	3313	672	RADIOTRE
+	266	3301	516	RaiNotizie24
+	267	3304	515	Rai Test HD
+	281	3310	522	Rai Culp
+	284	3310	253	RAI OND
+	285	3304	212	RAI TEST HD
+	286	3301	210	RAI NOTIZIE 24
+	287	3313	653	RAI UNO HD
+	288	3312	652	RAI UNO HD

System Logs

Log type: Alarms

Date:

Logs List

Id	Log Date	Log Type
1	2011/3/25	Alarms
2	2011/3/30	Alarms
3	2011/3/31	Alarms
4	2011/4/12	Alarms
5	2011/4/13	Alarms
6	2011/4/14	Alarms
7	2011/4/15	Alarms
8	2011/4/19	Alarms
9	2011/4/2	Alarms
10	2011/4/27	Alarms
11	2011/4/28	Alarms
12	2011/4/29	Alarms
13	2011/4/5	Alarms
14	2011/4/8	Alarms
15	2011/5/10	Alarms
16	2011/5/11	Alarms
17	2011/5/16	Alarms
18	2011/5/2	Alarms
19	2011/5/3	Alarms

Log Content

System Log
Time: 14:38:24
Date: 12/04/2011

Actual Channel: 21
Mode: Monitor
Alarm Type: CBER ALARM
Cber Ths: 6.0e-5
Cber: 1.0e-1

System Log
Time: 14:43:01
Date: 12/04/2011

Actual Channel: 21
Mode: Monitor
Message: NO CBER ALARM MORE
Cber Ths: 6.0e-5
Cber: 3.0e-5

DVB-T Monitoring Probe

GENERAL SPECIFICATION

- COFDM front-end full ETSI EN 300 744 compliant
- Frequency tunable upon TV frequency bands III, IV-V
- 6, 7, 8 MHz channel bandwidth
- FFT size: 2K and 8K - Hierarchical modes HP and LP
- MPEG2 - TS provided on 1 ASI outputs at 270 Mb/s rate, according to EN 50083-9 standard
- RF demodulation quality measurements
- MPEG2-TS analysis according to TR 101 290
- Internal MPEG-2 de-multiplexer-decoder-PAL, RGB video, and audio outputs
- Local Access to configuration data and analysis (result) from the front panel
- Remote control through using HTTP, SNMP protocols
- The embedded software can be remotely upgraded
- Alarm thresholds can be set for each measurement analysis parameter
- 19" - 1U cabinet - 100/240 V - 47/60 Hz power supply

TRANSPORT STREAM

- ASI interface on back panel input BNC connector

PERFORMANCES

- Saw filter IF embedded
- Adjacent channel rejection : > 50 dB
- Mer measurement (RF) : > 40 dB

MEASUREMENTS AND GRAPHICAL RAPPRESENTATIONS

- Constellation
- Spectrum
- Signal level
- MER RMS
- MER vs Carrier
- Echo pattern
- BER a V.
- Channel amplitude response
- Frequency offset
- TPS
- Spectral inversion

PHYSICAL SPECIFICATION

- Power Supply: 100 - 240 VAC, 47 - 60 Hz
- Consumption: 140 W
- Cabinet: 19" rack, 1U, 500mm depth
- Guaranteed specifications: +5 to + 45° C
- Operation temperature: 0 to + 50° C

RF

- RF input connector type N
- return loss: > 20dB
- Full compliant to ETS 300 - 744 specification
- Signal level: -80 to -25 dBm or - 0 to +10 dBm (depending on models)
- Frequency tunable within VHF III, and UHF IV-V TV frequency bands
- Offset selectable 0Mhz, +/- 1/6 Mhz, +/- 2/6 Mhz, +/-3/6Mhz

IF

- Frequency 36.150 Mhz
- IF input connector type BNC
- Return loss:> 20dB
- Input signal level: -6 to +6 dBm
- IF output connector type BNC
- Output signal level 0 dBm

FFT

- bandwidth selectable 6, 7, 8 MHz
- FFT size: 2K and 8K
- Guard interval: 1/4, 1/8, 1/16, 1/32
- Code rate: 1/2, 2/3, 3/4, 5/6, 7/8
- Modulation: QPSK, 16QAM, 64QAM
- Hierarchical modes
- Access to all demodulation parameters is available either on the front panel or remotely

REMOTE CONTROL

- Ethernet TCP/IP proxy board: full remote control is available using HTTP, SNMP protocols