

RCS Monitoring Family

HIGHEST PERFORMANCE REAL TIME MONITORING SYSTEM
FOR FM AND DAB/DAB+ NETWORKS



Simultaneous FM, DAB/DAB+, ETI & EDI signals analysis
Number of FM/DAB streams customizable by user at any time

PROFESSIONAL MONITORING:

RF ANALYSIS

- Real Time spectrum
- Two ways of operation: channel analysis or multiple channel polling
- Signal quality measurements
- Number of FM and DAB/DAB+ streams fully reconfigurable by the user
- Multiple channel polling: up to 512 channels
- Alarm log (real time) and representation (time evolution)
- Storage Capacity > 1 Month of logs
- Mask-based spectrum monitoring of all FM band

FM MEASUREMENTS & ANALYSIS

- RMS power
- Audio level
- L+R, L-R, L, R, RDS level
- Stereo pilot detection
- Silence detection
- RDS decoding
- MPX Spectrum and MPX Power
- Station presence/absence detection
- Peak deviation and Pilot deviation
- RDS identifier-based channel naming (with user rename capability)

DAB/DAB+ MEASUREMENTS & ANALYSIS

- BER (FIC BER and MSC BER)
- MER (FIC MER and MSC MER)
- Left/Right shoulders
- TII identification
- PRS + Null symbol spectrum
- Services Bitrates
- Slideshows
- Tree View
- FIG Tables and Bitrates
- ETI/NI-NA Analysis
- Station Logo information and display
- Sub-channel detailed information

RDS ANALYSIS

- Analysis of all RDS groups
- Station name extraction (PS)
- Program type extraction (PTYN)
- Date/Time (CT) extraction
- RDS BLER
- Audio level
- Dynamic Label display and alarming

OPTIONAL FEATURES

- ✓ Up to 2 FM + 1 DAB/DAB+ or 2 DAB/DAB+ or 4 FM channels
- ✓ Dual Power
- ✓ Audio output
- ✓ SMA connector for GPS antenna
- ✓ FM Audio Output and Streaming
- ✓ DAB/DAB+ Service Streaming and Recording
- ✓ Alarm and Manual ETI and FM Recording
- ✓ EDI Analysis (up to 8 streams)
- ✓ Constellation, Echoes and SFN Drift for DAB/DAB+

AND MUCH MORE...

- 1 x 10/100/1000Mbps (Gigabit Ethernet)
- HTML5 control application
- SNMP v2.0 alarms
- Remotely device reboot
- Full historical measurements with alarm analysis (consultation and download)

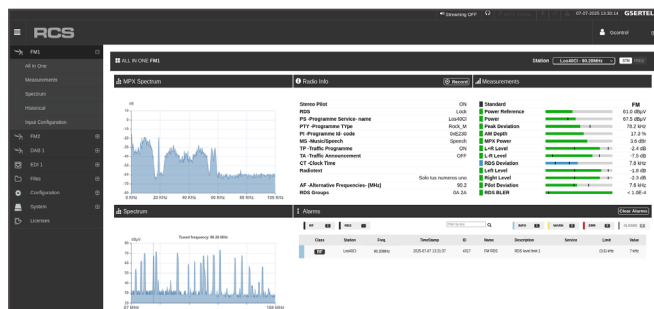
GSERTEL

RCS family

ADVANCED REMOTE MONITORING SYSTEM
FOR FM AND DAB/DAB+

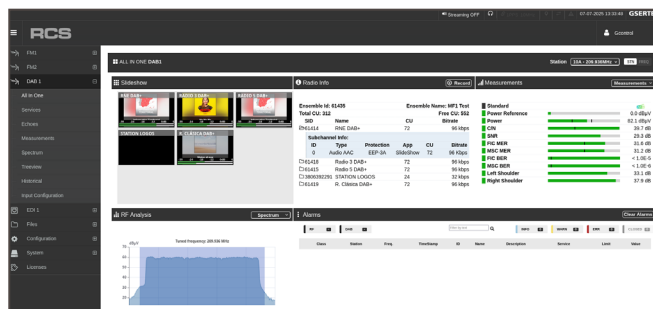


MANAGEMENT SYSTEM



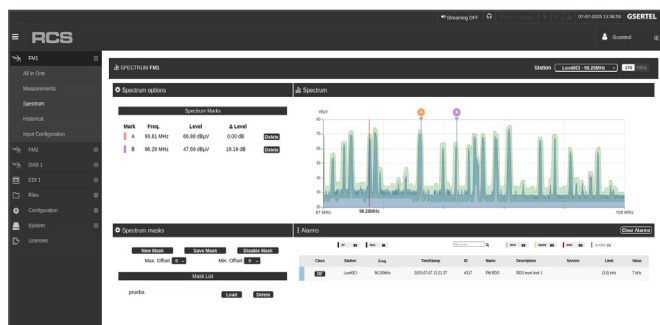
FM ALL IN ONE

Shows an overview of the channel status on one screen: spectrum, measurements, MPX spectrum, alarms, and all the information of the tuned station



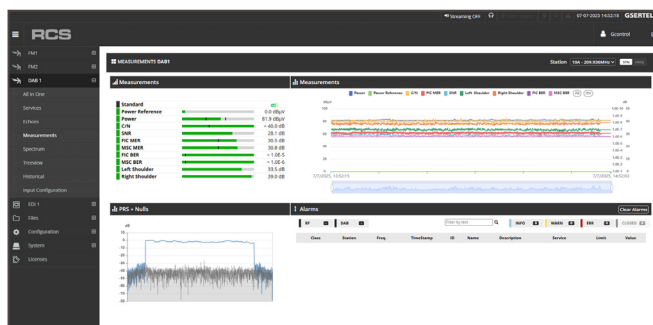
DAB ALL IN ONE

Shows an overview of the channel status on one screen: spectrum, measurements, screenshots, alarms, and all the information of the selected channel



SPECTRUM ANALYSIS

Real time spectrum with offset masks and marks



MEASUREMENTS

The Measurements tab contains the evolutionary graph over time of all parameters. The time frame of the graph can be selected. When the mouse is over the graph, the values of all parameters at that point in time are displayed

SPECIFICATIONS

Standard

FM
DAB (ETSI EN 300 401)
DAB+ (ETSI TS 102 563)

Inputs

RF: 1 x 50 Ω N connector (+1 Opt.)
SMA connector for GPS antenna (Opt.)
IP: 1x10/100/1000Mbps (Gigabit ETH)
ETI: 1xETI-NI G.703
1 PPS (Opt.) & 10MHz (Opt.)
Web/SNMP control (Gigabit ETH)
RF Input Frequency:
FM: 87 - 108MHz
DAB/DAB+: 168 - 240 MHz

Outputs

1 x 10/100/1000Mbps (Gigabit Ethernet)
Audio (1xJack connector)
GPO (1xEuroblock)

RF Measurements

20 MHz Spectrum
Power, C/N, S/N

FM Measurements

RMS power
Audio level (modulation, L/R, MPX, L+R, LR)
Stereo pilot detection
Silence detection
MPX Spectrum & MPX Power
Peak deviation
Pilot deviation

DAB Measurements

BER (FIC BER and MSC BER)
MER (FIC MER and MSC MER)
TII Identification
PRS+Null Symbol spectrum
Constellation, Echoes, SFN Drift (Opt.)
Left / Right Shoulders

FM Analysis

Silence detection
RDS decoding
Channel naming based on RDS identifier
Audio recording (Opt.)
Audio streaming (Opt.)
Audio output (Opt.)
Station presence/absence detection
FM Recording (manual, alarm, scheduled) (Opt.)

DAB/DAB+Analysis

Audio Services List with Bitrates
FIG Tables with Bitrates
Tree View
Slideshows
Silence Detection
Service Live Streaming and Recording (Opt.)
EDI Streaming (Opt.)
ETI Recording (manual, alarm, scheduled) (Opt.)
ETI-NI/NA Analysis
EDI Analysis (Opt.)

Polling feature

Number of channels analyzed: 512
Polling times config: From 1 to 300s

RDS Analysis

Analysis of all RDS groups
Station Name straction (PS)
Program Type Extraction (PTYN)
Date/Time (CT) Extraction
RDS BLER

Alarms

L/R audio max/min level
Max/Min RDS carrier level
Max/Min stereo carrier level
Presence/absence detection of transmitters
RDS data alarms

Electrical Characteristics

Input 100 - 240 VAC 50-60Hz 1.4A
-48 VDC (Opt.)
Dual Power (Opt.)

Mechanical characteristics

1U 19" rackable unit
Size: 482mm W x 348mm D x 41mm H
Working temperature: 0 a 40 °C
Storage temperature.: 0 a 50 °C

Interfaces

1 x USB 2.0
LCD Graphic display
HDMI

Control protocols

HTML, SNMP, FTP