

# RCS Monitoring Family

MONITORING SYSTEM FOR DVB-S/S2/S2X NETWORKS  
TO ANALYZE AND ENSURE THE QUALITY OF THE NETWORK

**DVB S**  
**DVB S2**  
**DVB S2X**



TWO PROBES TO COVER ALL NEEDS:

**RCS100** 1xRF input, 1xASI input, 1xASI output

**RCS400** 4xRF input, 4xASI input, 2xASI output

## PROFESSIONAL MONITORING:

### RF ANALYSIS

- Real Time spectrum
- Three ways of operation: channel analysis, multiple channel polling, and spectrum analysis
- Signal quality measurements: Power, PER, MER, CBER, VBER (DVB-S), LM, LDPCBER, BCHBER (DVB-S2/S2X)
- Alarm log (real time) and representation (time evolution)

### TS ANALYSIS

- Detailed bitrate of all services
- Level 1, 2 priority error analysis as TR 101 290 recommendations
- Table repetition and quality analysis
- Services treeview
- Video streaming up to 5 simultaneous destinations
- Loudness metering according EBU Tech Doc 3341
- PLS support (DVB-S2)
- ISI support (DVB-S2)

### AND MUCH MORE...

- Video thumbnails
- Local display of measurements and alarms
- HDMI audio/video output
- Ethernet connectivity
- HTML5 control application
- LNB powering supported (per RF input configurable)
- Supports DiSEqC commands to manage up to 4 satellites (per RF input configurable)
- Full integration with third parties' NMS

## OPTIONAL FEATURES

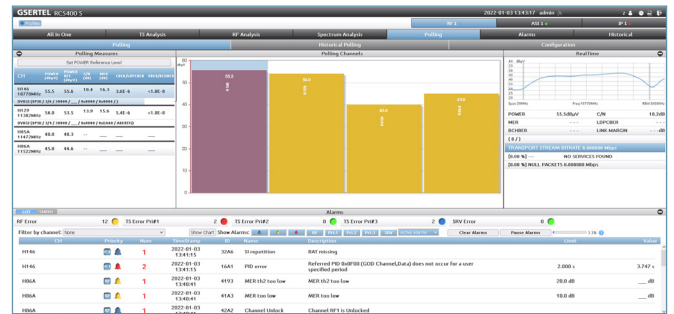
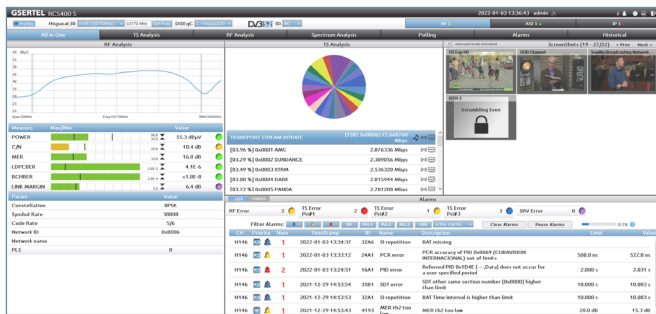
- ✓ IP (TSoIP) INPUT
- ✓ Redundant IP INPUT
- ✓ Full historical measurements with alarms analysis
- ✓ Advanced Measurements  
(Full Spectrum, Constellation)
- ✓ Extended TS Analysis  
(Level 3 priority errors)
- ✓ TS Recording  
(Manual, alarm triggered, and scheduled)
- ✓ Live Streaming
- ✓ Service template monitoring
- ✓ Bit rate monitoring
- ✓ Black and Freeze Detection.
- ✓ Audio Silence Detection

# RCS 100

ADVANCED REMOTE MONITORING SYSTEM FOR DVB-S/S2/S2X



## MANAGEMENT SYSTEM

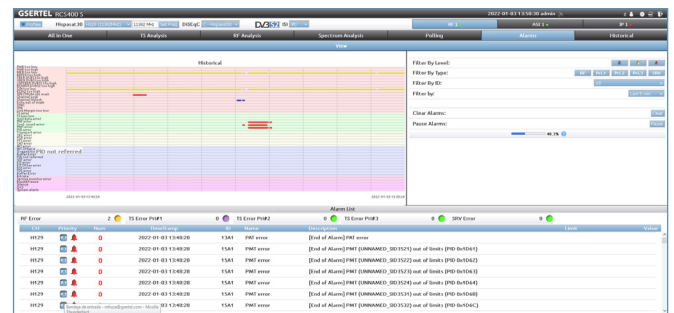


### ALL IN ONE

Shows an overview of the channel status on one screen. It shows spectrum, services, measurements, alarms, PID. All integrated in a single view for quick analysis

### POLLING

Round-robin measuring of a user-defined number of channels



### FULL SPECTRUM (OPT.)

Represents realtime spectrum of the monitored channel with detailed measurements, mask, max. and min. hold features

### ALARMS

Represents the alarms counter during a user-selected period of time

SPECIFICATIONS

#### Standards

ETSI EN 300 421 (DVB-S)  
ETSI EN 302 307 (DVB-S2)

#### Inputs

**RCS100:**  
RF: 1 x 75 Ω F connector  
TS: 1 x ASI IN BNC 75Ω

**RCS400:**  
RF: 4 x 75 Ω F connector  
TS: 4 x ASI IN BNC 75Ω

#### RF Input Frequency:

250MHz to 2400MHz  
IP: 2 x GE RJ45 (TSolP) (opt.)

#### Outputs

A/V: 1 x HDMI

**RCS100:**  
TS: 1 x ASI OUT BNC 75Ω

**RCS400:**  
TS: 2 x ASI OUT BNC 75Ω

#### Modulations DVB-S2/S2X

QPSK, 8PSK, 16APSK, 32APSK

#### RF Measurements

50 MHz Spectrum  
Power, C/N, MER  
CBER, VBER (DVB-S)  
Link Margin, BCHBER, LDPCBER (DVB-S2)  
Constellation (opt.)  
Full Spectrum (opt.)

#### Powering

Preamp powering  
LNB powering  
DiSEqC

#### IP flow measurements (opt.)

Packet arrival max. & min  
IP & UDP payload bitrate  
Media loss rate  
Loss IP frames  
Corrected IP frames

#### TS ANALYSIS

Level 1,2 y 3 priority errors (level 3 opt.)  
TR 101 290  
Alarms log analysis  
PCR Jitter (opt.)  
RDS Analysis  
Scramble Status  
Electronic Program Guide  
Loudness metering (EBU Tech Doc 3341) (opt.)  
Black and Freeze detection (opt.)  
Audio Silence detection (opt.)  
QoS measurements and alarms (opt.)  
PLS and ISI support (DVB-S2)

#### Electrical Characteristics

Input 100 - 240 VAC 50-60Hz 1.4A

#### Interfaces

1 x USB 2.0  
1 x Ethernet RJ45  
LCD Graphic display  
HDMI

#### Control protocols

HTML and SNMP

#### 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