

Monitoring

SAM-MT 450

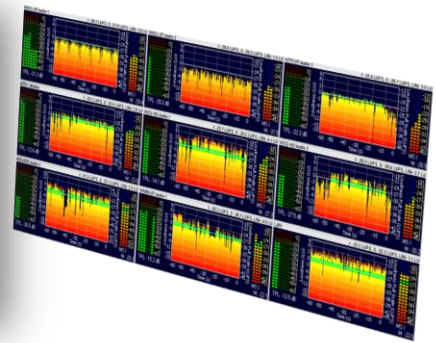
ATSC Monitoring Probe

Digital TV
Mobile DTV

ATSC

ATSC-M/H

QAM



◇ Key Features

- **24/7 real-time monitoring of hundreds of parameters on all technical layers**
 - RF
 - MPEG TR 101 290
 - PID- and Program Bitrate Measurement
 - EPG, Closed Captions CEA-608/-708, SCTE-20
 - Audio/Video
 - Loudness acc. ATSC A/85, ITU-R BS.1770.3, EBU R-128
 - Conditional Access
 - MDTV specific layers
 - M/H spec. Signaling, TPC, FIC, SI/PSI, Error Corrections
 - IP, UDP, RTP, SDP, ESP
 - ESG, Flute
 - Conditional Access
- **monitoring up to 8 multiplexes (MPTS) simultaneously**
- **support of a wide variety of input and output interfaces**
 - RF
 - ASI
 - IP
 - File

also in mixed configurations
- **streaming and transcoding the entire A/V content to any remote location**
- **TS snapshot creation and TS streaming for in-depth problem analysis**
- **individual configuration of error/warning thresholds and SNMP Traps**
- **completely remote configurable via SNMP or Remote Desktop**
- **comprehensive logging all events**

◇ SAM-MT 450 At a Glance

SAM-MT 450 is a cost efficient turnkey solution based on common server- and interface hardware. It enables network operators to monitor ATSC, ATSC-M/H and QAM broadcasts area wide.

Up to 8 multiplexes (MPTS) can be monitored in real-time and simultaneously on a single device, providing a very small footprint and affordable CAPEX and OPEX.

The solution offers a wide range of use cases:

- SNMP based monitoring of hundreds of parameters in real-time
- visual monitoring all DTV and MDTV services simultaneously
- in-depth remote problem analysis on all technical layers

SAM-MT 450 is suited for operation in the head-end, at transmitter side and in the field.

◇ Application

(1) DTV + MDTV Monitoring Network

Monitoring Probes **SAM-MT 450** receive the broadcast via RF, ASI or IP. Hundreds of parameters are analyzed simultaneously in real-time on all technical layers. The monitoring results and alarms are sent to the operation centers. Additionally the Audio/Video content can be transcoded and streamed to any remote location.

(2) Administration + Maintenance

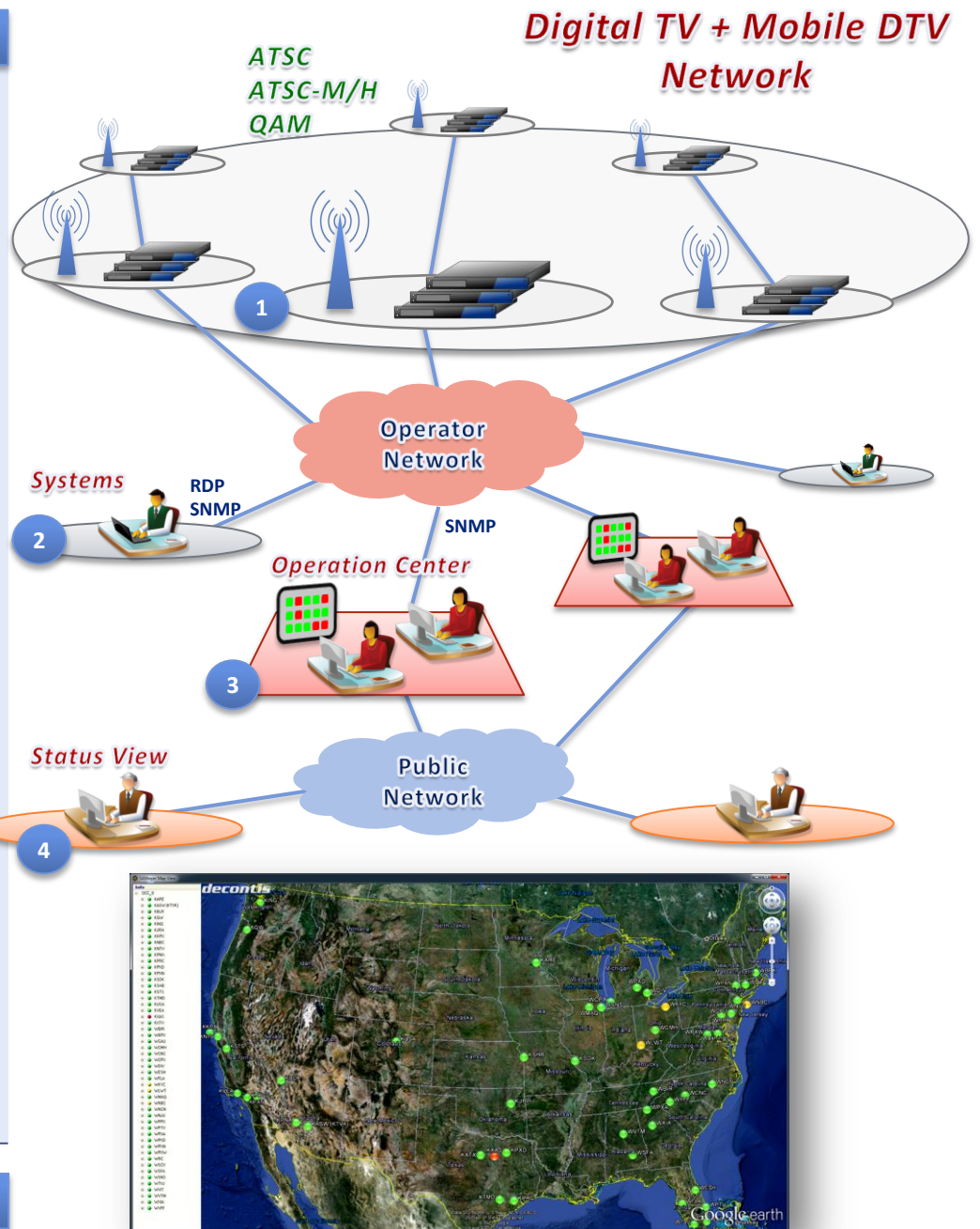
Network administration and maintenance staff or system engineers can access the monitoring probes via SNMP or via Remote Desktop using the comfortable GUI. Beside all configuration tasks a remote problem analysis can be performed either by streaming the entire TS to the remote location or by creation of TS snapshots. With **atscSAM Analysis Pack** the TS can be analyzed in any regard up to the last bit.

(3) Operation Center

The Network Management System (NMS) running in the operation center receives all monitoring results and alarms and visualize these for the operators service staff. Especially the decontis **atscSAM Operation Center Solution** provides a lot of unique features and thus qualified perfectly as central operator component.

(4) Status View

A monitoring viewer application collects and aggregates the monitoring status of all atscSAM based monitoring probes operated by one or several operation centers. It visualizes the current status of all monitoring probes within comfortable Status View and map displays in a read-only manner.



◇ Technical Specification

Interfaces - MPTS ¹⁾²⁾

	RF	ASI	IP
Rack Server 1HU	1..4	1..4	1..8
Rack Server 2HU	1..8	1..8	1..8
Tower Server	1..8	1..8	1..8

- 1) ATSC, QAM, ATSC-M/H
2) mixed configurations possible

RF Input

	ATSC/ATSC-M/H	QAM
Input	75 Ω	75 Ω
Freq. Range	VHF/UHF	VHF/UHF

ASI Input

Input	75 Ω
Bit Rate	0..214 Mbit/s
Packet Size	188/204 Bytes

IP Input

1000 Mbit/s Ethernet

System ³⁾

Processor	Intel Core i7
RAM	8 GByte
HD	500 Gbyte
USB	2.0 / 3.0
Voltage	110 .. 220 V AC

³⁾ system components are individual configurable

OS

Windows 7 professional / ultimate / enterprise
Windows Server 2008

Dimensions ⁴⁾

	Dimension	Weight
Rack Server 1HU	483 x 43 x 600 mm	10 kg
Rack Server 2HU	483 x 87 x 684 mm	25 kg
Tower Server	360 x 175 x 417 mm	9 kg

⁴⁾ depends on actual configuration