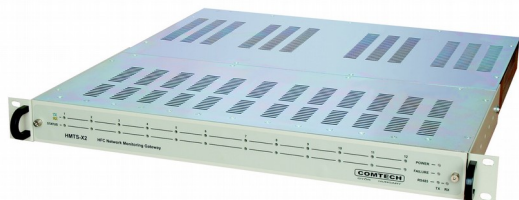


## HMTS-X2 FLEXIBLE NETWORK MONITORING GATEWAY FOR HMS AND SMC PROTOCOLS



- Key element of HMS and SMC monitoring solutions
- Management of return path ingress control switches
- Unidirectional control modules for RIB solution (Preliminary!)
- Automatic setting of transponders' upstream level
- Automatic device replacement function
- Optional compatibility with DOCSIS 3.1 systems
- Helps to keep OPEX low
- Honoured with innovation price

### GENERAL DESCRIPTION

The HMTS-X2 is a fully flexible configurable gateway for standardized HMS networks. The device can contain 12 modules, minimum 1 and maximum 6 downstream transmitters, and receivers in all the free slots - serving the possibility of composing clusters from the manageable 3000 pieces of network elements. On demand the modules are available with DOCSIS 3.1 compatible frequency ranges even so like the newest COMTECH transponders. The device can work as a modem too in case of SMC based monitoring solutions. The HMTS-X2 has an additional RS-485 connection for managing headend elements without Ethernet connection.

### TECHNICAL SPECIFICATIONS

<b>RF parameters</b>	ANSI/SCTE 25-1 compliant
Output impedance [ $\Omega$ ]	75
<b>RF transmitter parameters</b>	
Output level range [dB $\mu$ V]	85...115
Frequency range [MHz]	48...162 or 250...301
Frequency raster [kHz]	25
<b>RF receiver parameters</b>	
Input level range [dB $\mu$ V]	40...80
Receiver frequency range [MHz]	5...65
Frequency raster [kHz]	25
<b>Communication parameters</b>	
Physical layer protocols	RS-232C, DBM9, CCIT V.24 DCE 100Base-T, RJ-45
Data link layer protocols	IEEE-803.2 (Ethernet)
Network layer protocols	IETF RFC 891 (IPv4 - Internet Protocol v4) IETF RFC 826 (ARP - Address Result Protocol) IETF RFC 903 (RARP - Reverse Address Result Protocol) IETF RFC 792 (ICMP - Internet Control Message Protocol) 'Echo' and az 'Echo reply' messages
Transport layer protocols	IETF RFC 768 (User Datagram Protocol) IETF RFC 675 (Transmission Control Protocol)

*Specifications are subject to change without notice!*

Application layer protocols	RFC 2131 (DHCP - Dynamic Host Configuration Protocol) RFC 1067 (SNMP - Simple Network Management Protocol)
Other protocols	SSH (Secure Shell) HTTP (HyperText Transfer Protocol) (WebGUI) NTP (Network Time Protocol) only client

### RS-485 local port parameters

Protocol	HMS
Baud rate [baud]	38400

### General parameters

Power supply voltage	220VAC or -48VDC
Interfaces	RS-232, RS-485, 100BaseT
Temperature range [°C]	0...+50
Dimensions [mm]	43.5x483x450

## ORDERING INFORMATION

**H M T S - X 2 B - X X X X**

#### Power supply type

1 x 230V AC	A
2 x 230V AC (redundant mode)	B
1 x -48V DC	C
2 x -48V DC (redundant mode)	D
1 x 230V AC, 1 x -48V DC	E

#### Receiver modules

1	1 x HMTS-X2-RX module
2	2 x HMTS-X2-RX modules
3	3 x HMTS-X2-RX modules
4	4 x HMTS-X2-RX modules
5	5 x HMTS-X2-RX modules
6	6 x HMTS-X2-RX modules
7	7 x HMTS-X2-RX modules
8	8 x HMTS-X2-RX modules
9	9 x HMTS-X2-RX modules
A	10 x HMTS-X2-RX modules
B	11 x HMTS-X2-RX modules

#### Transmitter mod. 250...301 MHz

None of this type is installed	0
1 x HMTS-X2-TX module	1
2 x HMTS-X2-TX modules	2
3 x HMTS-X2-TX modules	3
4 x HMTS-X2-TX modules	4
5 x HMTS-X2-TX modules	5
6 x HMTS-X2-TX modules	6

#### Transmitter mod. 48...162MHz

None of this type is installed	0
1 x HMTS-X2-TX module	1
2 x HMTS-X2-TX modules	2
3 x HMTS-X2-TX modules	3
4 x HMTS-X2-TX modules	4
5 x HMTS-X2-TX modules	5
6 x HMTS-X2-TX modules	6

### Accessories

#### Type

Transmitter expansion	HMTS-X2-TX transmitter module
D3.1 transmitter expansion	HMTS-X2-TX-D3.1 transmitter module
Receiver expansion	HMTS-X2-RX receiver module
Power supply	HMTS-X2-PS (230V AC) or HMTS-X2-PSD (-48V DC)

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