

DOCSIS® mini-CMTS

DAH DOCSIS ACCESS HUB

Teleste's DOCSIS Access Hub brings high-speed broadband connections and broadcast TV to your customers. The DAH works in existing two-way coax networks, and is an ideal broadband solution for the hospitality sector and for MDU applications requiring business broadband and managed wireless services.

Teleste's DOCSIS Access Hub (DAH) mini-CMTS is designed to bring high-speed broadband to individual apartments, to hotel rooms and cabins, or to areas with small subscriber base. It allows you to bring high-speed data, IPTV and OTT services to your customers with considerably lower costs compared to building new fibre infrastructures. Ideally the DAH is placed to a network location that serves around 500 customers. Thanks to the integrated DHCP server the DAH is a true "standalone" device that doesn't need any external PC server for provisioning of the cable modems and due to its integrated CATV amplifier, it can also be used to deliver traditional broadcast TV.



DAH PROVIDING FIBRE EXPERIENCE OVER COAX

The DOCSIS Access Hub (DAH) mini-CMTS brings high-speed broadband connections and broadcast TV to your customers. It enables implementing various capacity scenarios supporting diverse business models and ensuring a high quality of service.

Easy-to-use mini-CMTS

DOCSIS Access Hub mini-CMTS brings high-speed broadband connections and broadcast TV to your customers. It features an easy-to-use graphical user interface that makes the installation and management quick and easy. Thanks to the integrated DHCP server the DAH doesn't need any external PC server for provisioning of the cable modems.

Robust and integrated

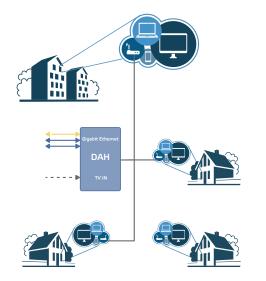
DAH mini-CMTS can be installed both outdoors in street cabins as well as indoors inside apartment buildings. The casing meets IP54 classification which makes it fit for demanding conditions.

Integrated power supply, amplifier and switch make the product rugged and compact without need for any additional hardware. This also helps in setting up the device by making it simple and quick to install.

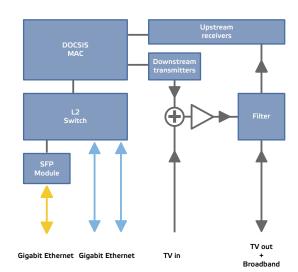
Complete set of equipment

To make it simple and easy for you, we have also standard cable modems available to go with the DOCSIS Access Hub. Together they form a complete solution for offering broadband and data services to your customers using the existing coax infrastructure. You can get conveniently all that is needed from one place.





DOCSIS Access Hub - Gigabit IP over existing coax cable



DOCSIS Access Hub – block diagram

Trouble-free performance with "plug and leave"

Our extensive testing produces robust products that work. Every detail of the DAH has been thought through. For example, its fan-free design doesn't need maintenance, and EMC problems are eliminated by proper isolation of Gigabit Ethernet ports. In addition, the DAH offers "plug and leave" functionality: just plug in the device and you are ready to leave. The DAH does the configuration work automatically for you.

Key features

- Advanced management tools allowing free capacity allocation
- 16 downstream and 4 upstream channels
- Supported downstream modulations: QAM64, QAM256, QAM1024
- Supported upstream modulations: QPSK, QAM16, QAM64, QAM256
- Capacity of 960 Mbps downstream and 160 Mbps upstream
- Remote configuration and management
- USB port for local configuration
- Excellent ESD and surge protection
- Wide availability of subscriber modems
- Based on mature standards , developed for high availability networks



DAH / DOCSIS ACCESS HUB

MANAGEMENT AND MONITORING		DOWNSTREAM SIGNAL PATH (RF INTO RF OUT)	
CLI via SSH / Telnet	USB for local management	Frequency range	54 / 851006 MHz
WEBUI	НТТР	Gain	42 dB
Dual application SW	Safe remote SW upgrade	Gain selection	42 dB/34 dB
Timed reboot	Safe remote upgrade recovery	CTB 42 channels	117.0 dBµV
SNMP	SNMPv2c MIB's & traps.	CSO 42 channels	117.0 dBµV
Management VLAN	Isolates CM management from CPE traffic	Umax (112 QAM channels)	113.0 dBµV
Radius Authentication	Centralised user password management	DOCSIS DOWNSTREAM	
Cable modem monitoring	Number of cable modems (MAC, IP addr, bonding, DOCSIS version). Status of each modem (ranging, registered, operational, offline)	Number of channels Output frequency	16 1081006 MHz
CPE connected to cable modems	Number of CPE (MAC, IP). Status of CPE (active, non-active)	Output level	95117 dBµV per channel
Syslog	Internal and external syslog servers, Event Severity filters, Logging: any events, CM arrival/departure, user login, internal DHCP events	Modulation	QAM64, QAM256, QAM1024
		Channel width	6 MHz/8 MHz
Techsupport file	Easy way to gather technical status	DOCSIS UPSTREAM	
Teleste EMS integration	Teleste Commander can manage DAH	Number of channels	4
Upstream RF characteristics	Level, SNR, FEC counters	Input frequency	542 / 65 MHz
Upstream spectrum analyser	Display US spectrum to detect problems	Nominal input level	5787 dBµV @ 5.12 Mbaud
Downstream RF characteristic	Ask current RF parameters from CMs	Туре	ATDMA, SCDMA
Service flow traffic	Service flow specific packet/byte counters	Modulation	QPSK, QAM16, QAM64, QAM256
Cable mode statistics	Drop counters, state before last drop	Symbol rate	1.28, 2.56, 5.12 Mbaud / Channel
RF channel usage rate	Percentage to verify bitrate utilisation	Channel width	1.6, 3.2, 6.4 MHz
NETWORKING		GENERAL	
Supported DOCSIS modems	DOCSIS 2.0 / 3.0, Euro-DOCSIS 2.0 / 3.0	Power consumption	60 W
Provisioning of cable modems	Integrated DHCP server, unique configuration file per CM	Supply voltage	110240 VAC
Shared secret protection	Against local CM configuration	Dimensions (h x w x d)	360 mm x 350 mm x 150 mm (14″ x14″ x 6″)
IPTV Support (Multicasting)	IGMP snooping, IGMPv3	Weight	10 kg, (22 lbs)
QoS	DOCSIS service flows (static)	Class of enclosure	IP54
VLAN tagging	802.1Q	Operating temperature	-10+55 °C
Load balancing	Manages DS and US channel loading	Number of gigabit ports	2
Automatic channel bonding	Manual for non-adjacent DS channels	Connectors	2 x RJ-45 socket, 1 x SFP module slot,
DS level adjustment	Balance DS with broadcast channel levels		2 x PG11/F-female
US level adjustment	Optimise US levels	EMC compatibility	EN50083-2, EN61000-6-1,
US dynamic modulation	Automatic adjustments based on SNR		EN61000-6-3
Option 82 tagging	(DHCP snooping, DHCP relay)	ESD	4 kV
IP spoofing protection	With lease query	Surge	6 kV (EN 60728-3)

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