

# CS-CMTS

## ***Communication Station — Cable Modem Termination System***

### **Take the Guess Work Out of Deploying a DOCSIS Data Solution With Blonder Tongue's High Performance, Affordable & Scalable CMTS**

A CMTS (Cable Modem Termination System) conceptually converts Ethernet based digital data signals to RF signals and vice versa, allowing two-way transmission of digital data over coaxial cable or HFC (Hybrid Fiber Coax) networks. This data typically consists of Internet traffic, video or VoIP (Voice Over Internet Protocol). The CMTS from Blonder Tongue now makes deploying a standards based system affordable for cable operators of any size.

The Blonder Tongue Communication Station CMTS unit is based on the DOCSIS (Data-Over-Cable-Service-Interface-Specification) standards. The CMTS features a scalable design architecture that supports one DOCSIS or Euro-DOCSIS downstream channel with 64 or 256 QAM modulation and up to eight (8) upstream channels that can be factory or field installed supporting QPSK or 16 QAM. The single rack unit (1.75" high) can be installed in a cable headend facility or a distribution hub site and can function with any DOCSIS/EuroDOCSIS certified CPE (Customer Premise Equipment) device.

- DOCSIS & Euro DOCSIS CMTS in 1 Rack High Chassis Unit
- Scalable Design supports Up to 8 Upstream Channels
- Traffic Forwarding Performed via Layer-2 Transparent Bridge
- Integrated Advanced Command Line Interface Permits Easy Programming
- Remotely Manageable & Upgradeable with SNMP & Telnet Access Capabilities



**BLONDER  
TONGUE**  
LABORATORIES, INC.



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## ○ Features & Benefits

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The Communication Station CMTS unit from Blonder Tongue is a high performance cable modem termination system designed to accommodate practically any application but is perfectly suited for small system type deployments.

The CS-CMTS starts out like your usual DOCSIS/Euro-DOCSIS “pizza box” like unit but that is where the comparison ends. The unit features a scalable design architecture that minimizes capital investment by providing the ability to add support for additional subscribers as the base grows. This is accomplished by supporting 1 to 8 upstream modules that are field installable. An advanced command line interface (CLI) software with context sensitive help and variable prompts make set-up easy. The CLI can be accessed locally via the serial interface or remotely through the built-in network secure Telnet server as well as provide remote download capability for software updates with the use of TFTP and FTP servers.

Security is vital to any data application today and the CS-CMTS provides advanced tools such as DOCSIS BPI and BPI+ packet filtering, and DHCP and ARP monitoring to prevent unauthorized system access. Traffic forwarding is handled as a layer-2 transparent bridge with support for Syslog, Radius, PPPoE and network protocol services. Plus, subscriber satisfaction during peak usage is maintained with a unique dynamic load balancing approach of upstream traffic management with the use of load balancing algorithms and support for upstream frequency reuse. An optional NMS (Network Monitoring Software) is also available to provide a single source for configuration, service provisioning, performance analysis, QoS accounting and subscriber access authentication. This all adds up to the most complete, easy to use and affordable DOCSIS based CMTS solution available.

## ○ Specifications

	DOCSIS	Euro-DOCSIS
<b>Downstream</b>		
Downstreams:	44 MHz	36.125 MHz
IF Output:	6 MHz	8 MHz
RF Channel Spacing:	1	1
Number of Channels:	QAM 64 & QAM 256	QAM 64 & QAM 256
Modulation Type:	5.056 Msyms/s (QAM 64)	6.952 Msyms/s (QAM 64)
Symbol Rate:	5.360 Msyms/s (QAM 256)	6.952 Msyms/s (QAM 256)
<b>Bandwidth</b>	6 MHz	8 MHz
Output Impedance:	75 Ohms	75 Ohms
Output Return Loss:	> 14 dB	> 14 dB
Output Level:	+ 40 dBmV	+ 40 dBmV
<b>Upstream</b>		
Frequency Range:	5 — 42 MHz	5 — 65 MHz
Number of Channels:	1 to 8	1 to 8
CNR (In Channel):	> 22 dB	> 22 dB
Level Range:	-4 to + 26 dBmV	-4 to + 26 dBmV
Modulation Type:	QPSK & QAM 16	QPSK & QAM 16
Symbol Rate:	160, 320, 640, 1280 & 2560 ksym/s	160, 320, 640, 280 & 2560 ksym/s
Bandwidth:	200, 400, 800, 1600, 3200 kHz	200, 400, 800, 1600, 3200 kHz
<b>Controls &amp; Interfaces</b>	<b>System Standards</b>	<b>General</b>
LAN Interface: 10BaseT/100BaseT Fast Ethernet	Specification: DOCSIS/EuroDOCSIS 1.0	Power Consumption: 34 Watt
Serial Port: EIA-232 9 Pin D	Communication: SNMP, Radius, PPPoE, Telnet	Voltage: 100—240 V, 47—63 Hz, Auto
IF Out Port: F Connector, Rear	<b>Mechanical</b>	Safety Compliance: UL, CE
US Port: F Connector, Rear	Dimensions: 21 x 1.75 x 19 Inches	EMC/EMI: FCC Part 15, CE Class B
-20 dB IF Test Port: BNC Connector, Front	Weight: 515 x 44 x 483 mm 19.8 lbs. 9 kg	Warranty: 1 Year
LEDs: AC Power, Link, WAN, Data Downstream, Data Upstream		Operating Temperature: 0° to 40° C
		Storage Temperature: -10° to 60° C
		Humidity: 10% to 90%, non-condensing

## ○ Ordering Information

Model	Stock No.	Description
CS-BT-CMTS-1x1	2643	Blonder Tongue 1 x 1 DOCSIS CMTS, 1 Downstream 1 Upstream Channel
CS-BT CMTS U/S Mod	2644	BT CMTS Upstream Module
CS-BT-CMTS-NMS	2645	Blonder Tongue DOCSIS CMTS Network Monitoring Software Package for CMTS



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LABORATORIES INC.

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800-523-6049 or 732-679-4000 • www.blondertongue.com