



Internet Cable solutions for small & medium-sized cable networks

TECHNICAL HIGHLIGHTS

- o DOCSIS 3.0 / 2.0 / 1.1
- o Interoperable with any DOCSIS compliant cable modems
- o Embedded system based on "Broadcom" advanced PHY/MAC that includes a fully digital receiver supporting TDMA, ATDMA
- o Smart Spectrum impulse noise mitigation
- o Integrated up converter | Digital Edge QAM
- o Downstream modulation QAM 64 / QAM 256
- o DOCSIS 1.x/2.0 mixed logical channel
- o SNR computing and Pre-equalizer, Ingress cancellation
- o SNMP and Telnet access for software upgrade and configuration
- o Quality of Service provisioning

OnPromo ON BOARD WEB APPLICATION

- o Web access
- o User Admission
- o Configuration file building
- o Support - Provisioned Registration
- o DHCP / TOD / TFTP / HTTP services
- o Subscriber and modem data base management
- o Billing option : Prepaid, postpaid traffic limited
- o Monitoring, SNR graphs
- o CM / CPE / IP History
- o CMTS configuration

New Generation CMTS DOCSIS / EuroDOCSIS 3.0, 2.0, 1.1



ATOLL-6U
6U X 19 inch X 220X
Up to 64DS / 16 US

Damery Cable Modem Termination System (CMTS) family is a high-performance, scalable, modular and cost-effective solution for small and medium-sized cable networks.

Complying with DOCSIS 3.0, DOCSIS 2.0 and DOCSIS 1.0 & 1.1 standards, they provide a large bandwidth range from 50 Mbit/s to 3 200 Mbit/s.

A WEB application for provisioning and monitoring of cable devices, **OnPromo**, is embedded in all models of Damery CMTS.

Thanks to their modular architecture, they can be configured for very small networks and be upgraded to larger configurations.

The smallest volume (1U, 310 X 220 mm) is offered by **CORAL Pico** 16DS / 4US, 800 Mbit/s, DOCSIS 3.0.

As light as a "chromebook", it is perfect for test laboratories, for exhibitions, for training and for technical rooms.

CORAL Tiny, 16DS / 4US, 800 Mbit/s, DOCSIS 3.0 is a standard 19", 1U as light as a notebook.

ATOLL - XL, 19" rackable 6U, can be upgraded up to 64DS / 16US, 3 200 Mbit/s with the possibility to start with a smaller capacity like CORAL units.

We are keeping in production **OPAL TINY** : 1DS / 2US, upgradable to 1DS / 4US, 50 Mbit/s, DOCSIS 2.0, for very low budget needing standard Internet cable solutions.

CORAL and OPAL 1U units can be used in single, stand-alone configuration or stacked with ProBmo provisioning server to increase the global capacity of the network.

- The CORAL CMTS systems enable carriers to offer scalable, secured high speed, value-added IP services to small and medium-sized cable networks, into hotels and buildings.
- It opens the door to dependable high-speed service such as high-speed Data, Cable Telephony (VoIP), and Streaming Video services via already installed cable TV network.
- This allows network operators to take benefits of the internet technology immediately.

Software platform DOCSIS for specific CMTS development

Damery software platform, including DOCSIS 3.0 MAC and physical drivers running under QNX 5.6, can be integrated with different physical layers from different manufacturers. It can be used for specific design needs.





Damery CMTS Family

Technical Specifications

RF Downstream Specifications

Frequency range (center) : 88 – 1002 MHz

Annex : Annex A, B or C

Modulation (QAM) : 64, 256

Maximum Data Rate (Mbps) : 27, 36, 38, 56 per channel

Channel width : 6 to 8 MHz

Symbol rate (MSymb/s) : 0.88 to 6.9

RF Output Level (dBmV) : 41 to 56

Spectral occupancy :

64 QAM : 0.18 SRRC

256 QAM : 0.12 SRRC

Return Loss : 14 dB

Output Impedance : 75 Ω

RF Upstream Specifications

Frequency Range : 5 to 65 MHz

Modulation : QPSK, 8, 16, 32, 64 QAM

Data rate (Mbps) : 30, 72

Error Correction : Reed Solomon

Symbol Rate (kSymb/s) : 160, 320, 640, 1280, 2560, 5120

Receive Input Level (dBmV) : -16 to 23

Installation Environment

RF Interfaces : 'F' type connector

Network-side Interfaces : 10/100/1000 Base T Ethernet

Power : 120V / 220V, 50 / 60Hz

Power Consumption : 40W DC by 16 channels

Operating Temperature :

Short Term : -5 to +55 °C

Long Term : +5 to +40 °C

Storage Temperature : -40 to +70 °C

Operating Humidity : 5 to 85% (Non condensing)

Dimensions :

CORAL PICO : 1U x 310mm x 220mm

CORAL TINY : 1U x 19" x 220mm

ATOLL XL : 6U x 19" x 220mm

OPAL TINY : 1U x 19" x 430mm



Software release v1.3 Specifications

DOCSIS 3.0 Eight Channel Bonding (Downstream)

DOCSIS 3.0 Four Channel Bonding (Upstream)

TCP/IP, ARP, RIPv2, ICMP, VLAN, multicast, OSPF, DHCP, TFTP, SNMP, PPPoE

MIB Group : MIB II, DOCSIS MIB, Vendor-Specific MIB

Telnet

IPv6

Gigabit Ethernet over fiber (SFP)

Relay Agent (Option 82)

IGMP snooping

VPN Transparent and Tagging possibilities

DHCP Relay Option 82

QoSLI



On board Provisioning and Monitoring software Specifications

All Damery CMTS can be supplied with provisioning and monitoring software running on board, **OnPromo**, covering the following functions :

Services : DHCP server IPV4/IPV6, TOD server, TFTP server, SYSLOG server, SNMPTRAP server, SNMP Manager

Applications : Multi subnet IP provisioning (CM, CPE, EMTA), CM Configuration file generation DOCSIS 3.0/2.0/1.1/1.0, CMTS Configuration management, CMTS LOG & Syslog access, Traffic & bandwidth based customer provisioning, Network monitoring graphs, CM status reporting , Subscriber & modem data base management , Remote Modem software upgrade tools, Billing Module (Option), Dash boards. This software is licensed per 500 users.

Ordering Information

- CORAL PICO
 - CP-16/4 : Configuration 16DS/4US
 - CP-16/4 + : Configuration 16DS/4US + OnPromo
- CORAL TINY
 - CT-16/4 : Configuration 16DS/4US
 - CT-16/4 + : Configuration 16DS/4US + OnPromo
- ATOLL - XL
 - AX-16/4 : Configuration 16DS/4US
 - AX-32/8 : Configuration 32DS/8US
 - AX-48/12 : Configuration 48DS/12US
 - AX-64/16 : Configuration 64DS/16US
 - PR-500L : OnPromo license for 500 subscribers
 - PR-1000L : OnPromo license for 1000 subscribers
 - PR-1500L : OnPromo license for 1500 subscribers
 - PR-2000L : OnPromo license for 2000 subscribers
- OPAL TINY
 - OT-1/2 : Configuration 1DS/2US
 - OT-1/4 : Configuration 1DS/4US
- Software platform DOCSIS 3.0 : Please contact us

AVAILABLE SERVICES

Technical Support

Installation and Setup

Maintenance

Application Support

Hardware Support

Guaranteed Warranty



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