

## DOCSIS 3.0 CMTS

**The ATOLL-XL CMTS systems enable carriers to offer scalable, secured high speed, value-added IP services to middle sized cable networks, into hotels and buildings**

The Damery CMTS LINE major aim is to allow networks operators to take benefits of the internet technology whatever the size of their network.

Using your already installed cable TV architecture, they will immediately connect their network, their hotel or their building to the Internet network using the Damery CMTS LINE **UP TO 3200 MBITSEC**

### ATOLL-XL



19", 6U, 25 cm of deep

**MODULAR**  
**16Ds / 4Us TO 80Ds/20Us**

**Integrated provisioning and Monitoring software**

**Eco-Friendly**

- Basic configuration: ATOLL-XL is modular: It can be configured with up to 5 cards Docsis 3.0 16DS/4US (horizontal slots). In this configuration the capacity of the unit is 80DS/20 US
- DOCSIS compliance (Software DOCSIS 3.0/2.0/1.1)
- Interoperability with any DOCSIS compliant cable modems is assured
- Embedded system based on "Broadcom" advanced PHY/MAC that includes a fully digital receiver supporting TDMA, ATDMA
- Smart Spectrum impulse noise mitigation
- Integrated up-converter | Digital Edge QAM
- Downstream modulation QAM 64 / QAM 256
- DOCSIS 1.x/2.0 mixed logical channel, US channel bonding
- SNR computing and Pre-equalizer, Ingress cancellation
- SNMP and Telnet access for software upgrade and configuration
- Quality of Service provisioning
- User admission

DOCSIS 3.0 features will allow you to offer the higher bandwidth in both directions. The ATOLL-XL enables the delivery of DOCSIS-based IP applications, such as broadband access, VoIP, IPTV and video-over-IP to the MDU, hospitality and rural markets

IGMP features will allow you to offer applications like video streaming services between cable modem subscribers and the backbone data network needing higher bandwidth.

DHCP Relay, Option 82 and IP Helpers functions will allow you to accommodate with any provisioning configuration

Quality-of-Service (QoS) control will allow Cable Telephony applications (VoIP)

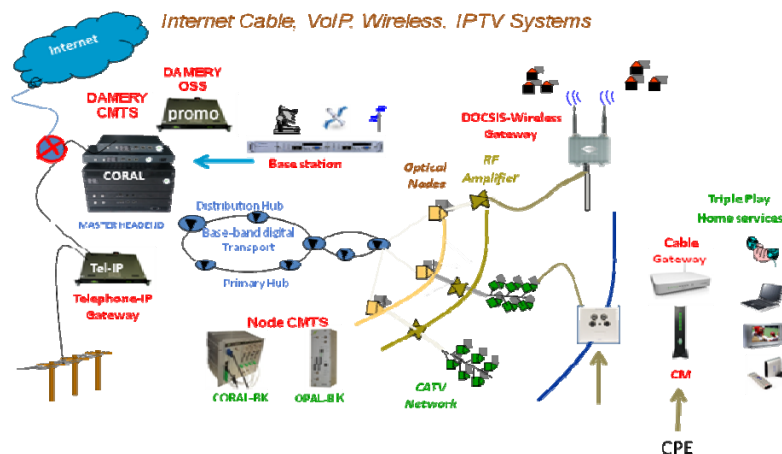
## ATOLL-XL opens the door to dependable high-speed services

### Specifications

RF Specifications	Network and Security	Environmental
<p><b>Docsis 3.0 Downstream port : 5</b></p> <ul style="list-style-type: none"> <li>➤ <b>Number of channels by port :16</b></li> <li>➤ <b>QAM modulation :</b> Annex A, B or C</li> <li>➤ <b>QAM constellations:</b> 16QAM, 64QAM, 256QAM</li> <li>➤ <b>Data Rates by channel</b> <ul style="list-style-type: none"> <li>○ <b>DOCSIS :</b> 27 Mbps @ 64 QAM, 38 Mbps @ 256 QAM</li> <li>○ <b>EuroDOCSIS :</b> 36 Mbps @ 64 QAM, 56 Mbps @ 256 QAM</li> </ul> </li> <li>➤ <b>Frequency range (center)</b> <ul style="list-style-type: none"> <li>○ 91 to 867 MHz (standard)</li> <li>○ 108 to 1002 MHz</li> </ul> </li> <li>➤ <b>Channel width :</b> 6 to 8 MHz</li> <li>➤ <b>Symbol rate:</b> 0.88 to 6.9 MSymb/s</li> <li>➤ <b>Spectral Occupancy:</b> <ul style="list-style-type: none"> <li>○ 64 QAM: 0.18 SRRC</li> <li>○ 256 QAM: 0.12SRRC</li> </ul> </li> <li>➤ <b>Return Loss:</b> 14 Db</li> <li>➤ <b>Output Impedance:</b> 75 ohms</li> <li>➤ <b>Connector F-type,</b> 75 Ω</li> </ul> <p><b>Docsis 3.0 Upstream port : 5</b></p> <ul style="list-style-type: none"> <li>➤ <b>Number of channels by port :4</b></li> <li>➤ <b>Modulation:</b> ATDMA, QPSK, 8, 16, 32, 64 QAM</li> <li>➤ <b>Error Correction:</b> Reed Solomon</li> <li>➤ <b>Frequency Range:</b> 5MHz to 65Mhz agile, in 100Hz steps</li> <li>➤ <b>Symbol Rate:</b> 320, 640, 1280, 2560, 5120 ksym/s</li> <li>➤ <b>Input Levels:</b> -16dBmV to +26 dBmV</li> </ul>	<p><b>Network Management</b></p> <ul style="list-style-type: none"> <li>➤ <b>SNMP</b></li> <li>➤ <b>MIB Group:</b> MIB II, DOCSIS MIB, Vendor-Specific MIB</li> <li>➤ <b>PPPoE</b></li> <li>➤ <b>Telnet</b></li> </ul> <p><b>Media-Access-Control (MAC)</b></p> <ul style="list-style-type: none"> <li>➤ <b>DOCSIS 2.0, DOCSIS 1.1, DOCSIS 1.0</b></li> <li>➤ <b>DOCSIS 3.0</b> <ul style="list-style-type: none"> <li>○ downstream channel bonding up to 16 channels</li> <li>○ IPv6 for CM</li> <li>○ upstream channel bonding up to 4 channels</li> <li>○ Firmware upgradable to AES encryption</li> </ul> </li> <li>➤ Load balancing</li> <li>➤ Spectral Management</li> </ul> <p><b>Network Interfaces</b></p> <ul style="list-style-type: none"> <li>➤ <b>Ethernet standard (IEEE 802.3)</b></li> <li>➤ <b>Ethernet interface:</b> 4 x RJ 45 connector for 1000BaseT</li> <li>➤ 4 x SFP fiber/copper 1GigE(Option)</li> </ul> <p><b>IP Process</b></p> <ul style="list-style-type: none"> <li>➤ IGMP snooping</li> <li>➤ VPN transparent</li> <li>➤ DHCP Relay Option 82</li> <li>➤ QoS</li> <li>➤ LI</li> <li>➤ Bridge</li> </ul>	<p><b>Environmental parameters</b></p> <ul style="list-style-type: none"> <li>➤ <b>Operating temperature</b> 0°C ~ 40°C</li> <li>➤ <b>Storage temperature</b> -10°C ~ 60°C</li> </ul> <p><b>Power Supply</b></p> <p><b>220V/110V</b> Maximum power 250W Eco-friendly design</p> <p><b>Dimensions</b></p> <p><b>ATOLL XL :19", 6U, 25 cm</b></p> <p><b>On-board WEB applications</b></p> <p>* Available on-board <b>provisioning and monitoring software</b></p> <p>Main functions are as following:</p> <ul style="list-style-type: none"> <li>➤ IPV4, IPV6</li> <li>➤ Docsis 3.0/2.0/1.1</li> <li>➤ Full Provisioning tools for cable operators business support</li> <li>➤ Complete DOCSIS servers range</li> <li>➤ Basic Network Monitoring system</li> <li>➤ MRTG</li> <li>➤ Optional : Alarm module, real bandwidth usage, dashboard</li> </ul> <p>* Available on-board <b>Softswitch software</b></p> <p>Main functions are as following:</p> <ul style="list-style-type: none"> <li>➤ Call services</li> <li>➤ Call management</li> <li>➤ VOIP protocols</li> <li>➤ Codex</li> <li>➤ User administration</li> <li>➤ User admission</li> </ul>

Based on a strong R&D capacity and focused on cable internet solutions for small and middle sized networks, Damery offers you a complete range of DOCSIS CMTS, provisioning and monitoring software products and the most original solutions for the most competitive prices

**Great Performances!**



### Sales and Service points

[sales@damery.be](mailto:sales@damery.be) - [www.damery.be](http://www.damery.be)