

# miniCMTS LMC2 product series

LICA miniCMTS (hereinafter referred to as the "LMC") series products are designed according to DOCSIS3.0 and EuroDOCSIS 3.0 standards as a compact device capable to replace CMTS in small HFC networks. Existing (Euro)DOCSIS 2.0 and 3.0 Cable Modems are supported as customer devices. LMC2 also has the potential to serve as EdgeQAM providing DVB-C modulation directly in coaxial last mile, possibly avoiding expensive optical equipment for RF distribution.

# Product highlights of Lica miniCMTS 2<sup>nd</sup> generation

- Increased capacity: 32DS x 10US
- Available throughput: 1600 Mbps DS, 300 Mbps US
- > 10Gbps SPF+ Ethernet
- > 500 Cable modems per CMTS

# Product main advantages

### 1. High Throughput

LMC2 series provide 32 downstream and 10 upstream bonded channels.

Available customer data-throughput is 1600Mbps in downstream and over 250Mbps in upstream.

# 2. (Euro)DOCSIS3.0 standard compatibility

LMC2 series support existing (Euro)DOCSIS 2.0 and 3.0 cable modems.

Downstream channel width can be set to 8 MHz or 6 MHz – Annex A and B is available.

LMC2 series support unicast and multicast traffic, QoS, Rate Shaping and other DOCSIS features.

#### 3. IPTV support - IPv4 Multicast & Unicast

The Lica miniCMTS supports IPTV service with both Multicast and Unicast IPv4 transport.

#### 4. Installation options

LMC2 is equipped with 2 RJ45 connectors (1Gbps) and 1 SFP1 slot (10/1Gbps).

#### 5. Integrated management

The miniCMTS offers integrated intuitive WebGUI for simple management. miniCMTS can also be connected to operator's NMS directly via SNMP protocol.

#### **Hardware Description**

The LMC2-1RU is a rack-mount 1RU "pizza" box, equipped with 1 DS and 1 US port" is intended for installations inside Racks. Integrated fans ensure proper cooling even if stacked tightly. Internal 100-240V AC Power Supply is available. Other HW versions are possible on project-basis.



miniCMTS LMC2-1RU



Module	Parameter	LMC2-1RU (32x10)	LMC-1RU (16x4)
Main	DOCSIS compatibility	EuroDOCSIS 2.0 and 3.0	
	IPQAM (DVB-C)	HW ready	Up to 8 Downstream channels
Downstream	QAM standards	Annex A, B	
	QAM modulation	64QAM, 256QAM	
	Channels	32	16
	Throughput (customers)	1600 Mbps (32x Annex A, QAM256)	800 Mbps (16x Annex A, QAM256)
	Frequency range	107 MHz – 1002 MHz	87 MHz – 1000 MHz
	Channel width	8 MHz (Annex A) or 6 MHz (Annex B)	
Upstream	Upstream modulation	QPSK, 16QAM, 64QAM; ATDMA, SCDMA	
	Channels	10	4
	Throughput (customers)	280 Mbps (10x 6,4MHz, QAM64)	100 Mbps (4x 6,4MHz, QAM64)
	Frequency range	5 MHz – 85 MHz	5 MHz – 65 MHz
RF part	RF ports	1 DS in + 1 US out	
	Internal RF loss	0 dB	
Network	Port speed	1 Gbps / 10 Gbps	1 Gbps
	Port Types	2x RJ45 + 1x SFP+	2x RJ45 + 1x SFP
	Management protocols	HTTP, SNMP, SSH	
Functions	Max. Cable Modems	508	DOCSIS 2.0 up to 500; DOCSIS 3.0 up to 300 with bonding 8x4
	Dynamic load balancing	Supported	
	DHCP Relay	Option 60, Option 82	
	QoS	Supported	
	VLANs (802.1q)	Supported	
Other	Housing	RackMount, 1RU	
	Environment	Operating Temperature: -25 °C to +75 °C	
	LIMIOIIIIGIIL	Humidity: 10% - 90%	
		100 – 240V AC, 50/60 Hz	
		Power consumption <= 45 W	
	Dimensions	483×406×43mm(1U)	