

## Distributed rCMTS/rPHY Multi-Access Platform

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### RC3000 Series

- **Node+0 and FTTB Architecture**
- **DOCSIS 3.0 , 2.0**
- **Annex A, B, C**
- **16 / 32 Downstream Ch**
- **Up to 1.6Gbps**
- **4 / 8 Upstream Channel**
- **GPON or P2P Uplink**
- **IEEE 802.3, IEEE 802.3x, IEEE 802.3u Auto MDI**
- **Support Remote Monitoring and SNMP**



ACT RC3000 (Remote Multi-Access CMTS or Remote PHY Platform) is a series of DOCSIS 3.0 networking node device designed for next generation Node+0 and FTTX systems on top of the cost effective CATV coaxial network, delivering multi-media services into the multi-dwelling units(MDUs). RC3000 features three main components in one compact IP54 aluminium housing, Gigabit PON or Active Ethernet (P2P) ONU, optional HFC optical receiver node and remote DOCSIS 3.0 CMTS module.

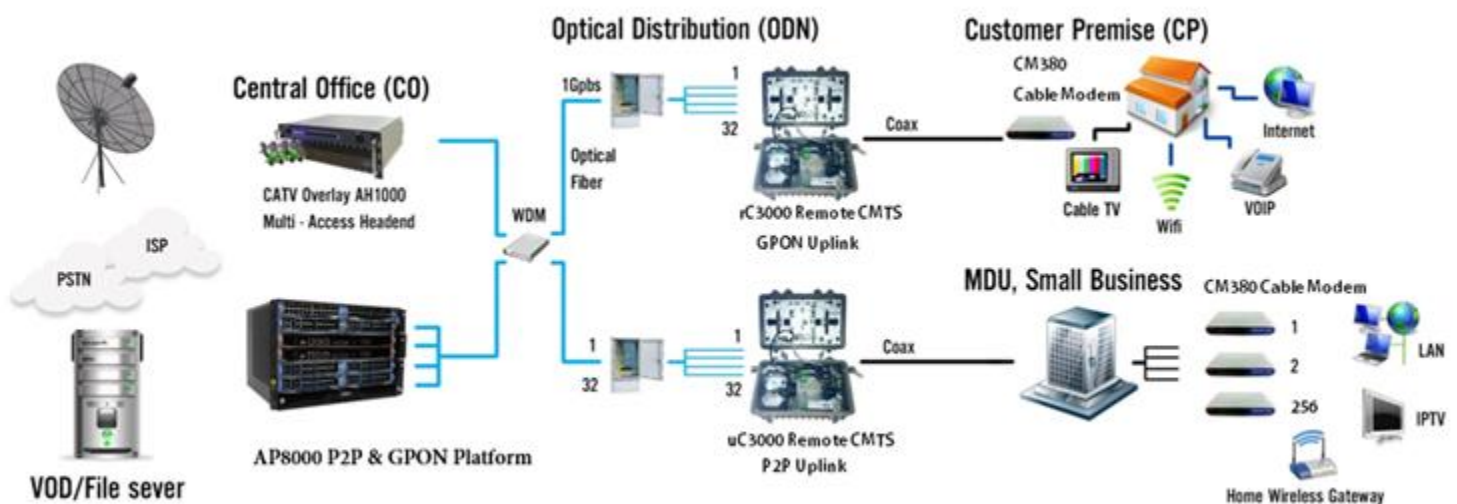
RC3000 node provides the ultimate migration path from traditional HFC to PON/P2P type of Fiber to the Building (FTTB) architecture. It offers high quality CATV signal together with up to 1.6Gbps high speed broadband data access, which can be managed through the SNMP management system.

The RC3000 rCMTS / rPHY node provides great flexibility to network service operator to connect MDUs with multiple low cost DOCSIS 3.0 or 2.0 cable modem units. With outstanding performance, quality, and features packed in a compact sized device, the RC3000 series is a great selection for Network Operators and Services Providers in Fibre to the Building and business networks.

## Key Features

- Distributed CMTS Multi-Access Platform designed for Node + 0 and Fiber to the Last Amplifier application
- DOCSIS 3.0 rCMTS enables cost effective 800/1600 Mbps data access over existing coaxial cables, while delivering full complement of TV channels, with telephony services
- Overall CATV RF spectrum from 87 to 1002MHz with DOCSIS 3.0 channel bonding 16 or 32 downstream and 4 or 8 upstream channels with expansion to upper bandwidth in near future
- Combining TV (DVB-T or DVB-C) channels with modulated DOCSIS down/upstream channels in RC3000
- Support NTSC, PAL, DVB-C, DVB-T video standards
- GPON: IEEE802.3, 1GE uplink, 1GE local LAN port, 1 FE management port and 1 console port
- Active Ethernet P2P: IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX/FX Standard, 1 GE uplink, 4 FE/GE local LAN port
- Optimize the service performance as well as utilization of limited IP resource for service providers
- Support up to 300 DOCSIS 3.0 Cable modems and up to 500 DOCSIS 2.0 modems with one RC3000 unit
- Network monitoring and management through SNMP

## Application Diagram



## Specifications

### RC3000 Remote CMTS Advanced Multi-Access Platform

Module	Parameter	RC3000 Series Remote CMTS D3.0 Multi-Access Platform
Main	DOCSIS	DOCSIS 3.0 and 2.0
	IPQAM (DVB-C)	Up to 16 Downstream channels
	QAM standards	Annex A, B
	QAM modulation	64QAM, 256QAM
	Channels	16 or 32
	Throughput	800 Mbps (16x Annex A, QAM256); 1600 Mbps (32x Annex A, QAM256)
	Frequency range	87/107 MHz – 1002 MHz
	Channel width	8 MHz (Annex A) or 6 MHz (Annex B)
	Max. output power	50 dBmV/110dBμV
Downstream	Power on RF port (16 ch.)	50 dBmV/110dBμV (amplified AGC)
	MER after	43 dB (amplified AGC)
	Out Of Band Noise	< -20 dBmV/40dBμV
	Upstream	QPSK, 16QAM, 64QAM, 256QAM ; ATDMA, SCDMA
	Channels	8
Upstream	Throughput	240Mbps (8 x 6.4MHz, QAM64)
	Frequency range	5 MHz – 65 or 85 MHz
	Internal Input	-13 dBmV to +23 dBmV / 47-83 dBμV
	RF ports	fiber in + 2 RF out or 2 RF in + 2 RF out
RF part	Internal RF loss	–
	Port speed	1Gbps or 2.5Gbps
	Port Types	1x RJ45 (occupied if ONU present) + 1x SFP
Network	Management	HTTP, SNMP, (SSH, TELNET)
	PON Interface	1Gbps symmetrical, SC/PC
	Optical Receiver	Sensitivity -26dBm
xPON ONU	Optical Transmitter	Power Level 2 .. 7 dBm
	Security	ONU authentication mechanism
Functions	Max. Cable	DOCSIS 2.0 up to 500; DOCSIS 3.0 up to 300 with bonding 8x4
	Dynamic load	Supported
	DHCP Relay	Option 60, Option 82
	DHCP & TFTP	Internal DHCP & TFTP server for CM Included
	QoS	Supported
	VLANs (802.1q)	Supported
	Housing	Outdoor, IP54
		Operating Temperature: -20 °C to +70 °C
		Humidity: 10% - 90%
		40-75V AC
		90-260V AC

Other	Power supply	Power consumption <= 50 W
	Dimensions	331×245×150 mm
	Weight	5.7 Kg

## Ordering Information

RC3000 Series Remote CMTS D3.0 Multi-Access Platform Ordering Information															
RC30XX-		XXX-		XX-		XX-		X-		XX-		XX-		X	

## Contact Information

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