

## RCMS2902-60FE-BL Multi-Service FiberMUX

RCMS2902-60FE-BL is a modular Multi-Service FiberMUX, which provides 1 optical fiber for uplink, and 2 E1 plus 1 FE for client access. RCMS2902-60FE-BL has local/remote alarm indicators on front panel. Local/remote loop-back function benefits link fault detection and troubleshooting. And being inserted in manageable chassis it can be SNMP managed through NView NNM to realize monitor and configuration. The classical topology of RCMS2902-60FE-BL is point-to-point application with another RCMS2902 insert into RC001-1 chassis. Both local and remote side equipment can be managed through network management software NView NNM.

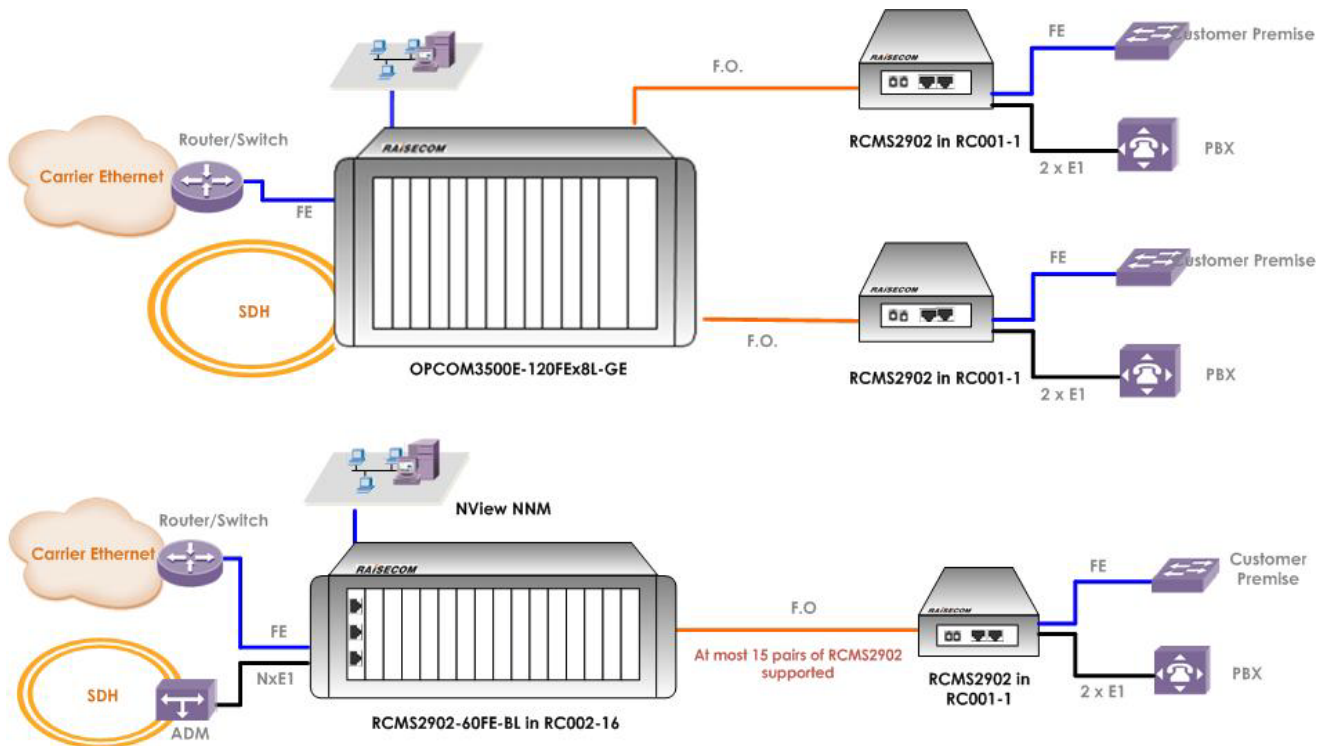


RCMS2902-60FE-BL

### Highlights

- Multi-Service** Provide 2 E1 plus 1 FE on client side
- Compact Structure** Modular device can be inserted in RC002-16 chassis or RC001-1M for SNMP management
- Easy Management** Local and remote managed via SNMP on Nview NNM

### Typical Application





## Features

<b>Fiber Port</b>	Code: Scrambled NRZ Speed: 155Mbit/s SC or FC connector(made to order) ALS supported
<b>E1 port</b>	2 x E1 Transparent 120Ω balanced (1 RJ-45 for 2 E1) E1 loopback test In-built bit error tester
<b>FE port</b>	1 x FE, RJ-45 connector 10/100Mbps auto-negotiation, speed and duplex configurable MTU: 1916Bytes Flow Control: IEEE 802.3x in full duplex mode Back pressure in half duplex mode Support MDI/MDIX
<b>Fault Pass Through</b>	Close down local FE ports when local/peer fiber port has LOS/LOF, or peer FE ports link down
<b>Remote Power Off Alarm</b>	Supported
<b>Rate Limit</b>	Egress/Ingress per port via Nview NNM Increments 64Kbps
<b>Management</b>	GUI-based SNMP management on Raisecom NView NNM system

## Specifications

<b>Fiber Port</b>	1 x SC or FC connector(made to order)
<b>E1 Port</b>	1 x RJ-45 connector balanced for 2 E1
<b>GE Port</b>	1 x 10/100Base-T RJ-45 Connector
<b>Indicator</b>	PWR for power supply ALM/LPR for fiber port / remote power off L/R LOS 1-2 for E1 tributaries LNK/ACT, 100M for FE port
<b>DIP switch</b>	SW1: ALS/FPT/manage mode/bit error test/ISP/E 1 loopback SW2: MDI/MDIX/FE speed/duplex
<b>Dimension</b>	25mm(H)×91mm(W)×172mm(D)
<b>Weight</b>	<0.125Kg
<b>Power consumption</b>	≤5W

## Compliances

<b>Standards &amp; protocols</b>	IEEE802.3-2002 IEEE802.3u 100BaseTX IEEE802.3x Flow Control ITU-T G.703, G.704, G.823,G.742,G.751
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Working environment	Temp: -5~50 Celsius
	RH: 10~90% (25 Celsius)
	AT : 86~106 Kpa
Storage environment	Temp : -25~60 Celsius
	RH : 10~90% non-condensing

## Ordering Information

**RCMS2902-60FE-BL-X** Multi-service FiberMUX, 2 E1 ports (120Ω balanced, 1 RJ-45 for 2 E1) + 1 10/100Mbps FE ports on client side, 1 SC or FC(made to order) fiber port on line side, single/multi-mode

**CBL-E1-RJ45/2RJ45-D** One RJ45 connector to two RJ45 connectors, E1 balanced twisted-pair , 1m

## X – Fiber interface Specification

X	Optical connector	Wavelength (nm)	Rx Sensitivity (dBm)	Tx (dBm)	Power	Typical (Km)	Distance	Attenuation (dB/Km)
M	SC	1310	<-28		-20~-14		0~2	3
S1	SC	1310	<-34		-15~-8		0~25	0.5
S2	SC	1310	<-34		-5~0		10~60	0.5
S3	SC	1550	<-36		-5~0 (DFB)		15~120	0.25
SS13	SC	1310	<-30		-12~-3		0~25	0.5
SS15	SC	1550	<-30		-5~0		0~25	0.5
SS23	SC	1310	<-32		-12~-3		10~50	0.5
SS25	SC	1550	<-32		-5~0		10~50	0.5
SS34	SC	1490	<-32		-5~0		15~100	0.5
SS35	SC	1550	<-32		-5~0		15~100	0.5

M: Multimode dual-strand; S1, S2, S3: Single-mode dual-strand; SS13, SS15, SS23, SS25, SS34, SS35:Single-mode single-strand

## RCMS2903-4E1-4GE Multi-Service FiberMUX

RCMS2903-4E1-4GE is a stand-alone multi-service FiberMUX, which provides 1 gigabit fiber uplink, and 4 E1 plus 4 GE for client access. The 4 GE ports share 1 gigabit bandwidth, and are provided with basic layer-2 switching function. The device is able to access at most four users with 1 E1 plus 1 Ethernet requirement, especially when the requirement on Ethernet bandwidth is more than 100Mbps. RCMS2903-4E1-4GE is typically used opposite an OPCOM3500E-240GEx4L card in Raisecom MSAP chassis iTN2100 or OPCOM3500E. The MSAP chassis helps aggregate E1 services on to SDH transmission network, and aggregate Ethernet services on to Metro Ethernet. One OPCOM3500E-240GEx4L can aggregate the E1 and Ethernet services from at most 4 RCMS2903-4E1-4GE. RCMS2903-4E1-4GE can be configured via DIP switches or local CLI, it can also be fully network managed as a remote device of Raisecom MSAP platform on the GUI-based Raisecom NView NNM system.

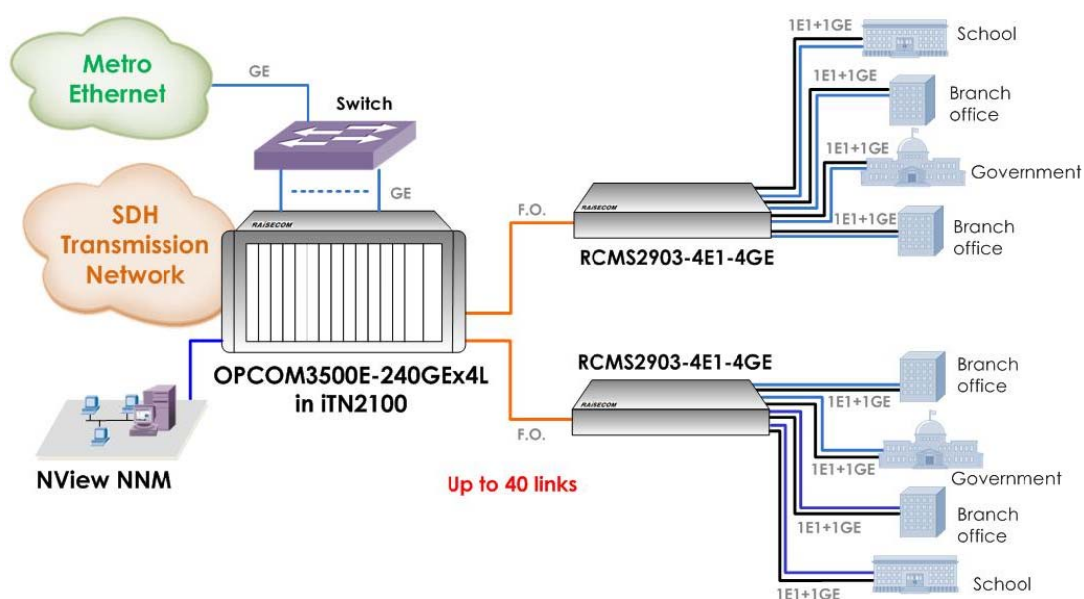


RCMS2903-4E1-4GE

### Highlights

- Multi-Service** Provide 4E1 plus 4GE on client side
- L2 Switching** The 4 GE ports are provided with basic L2 switching function
- Easy Management** Configured via DIP switches, managed via local CLI and SNMP

### Typical Application





## Features

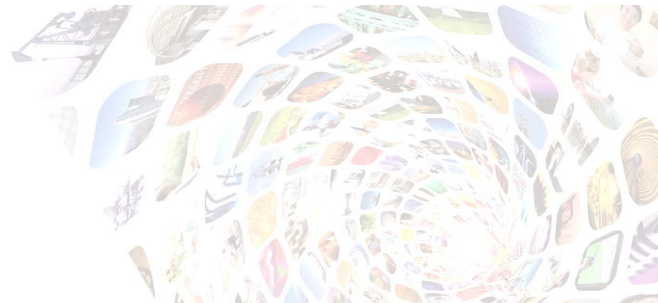
<b>Fiber Port</b>	Speed: 1.25Gbps SFP-based DDMI provided ALS supported
<b>E1 port</b>	4 x E1 Transparent 120Ω balanced (RJ-45) or 75Ω unbalanced (BNC), configurable E1 loopback test In-built bit error tester Unused E1 tributary alarm mask provided
<b>GE port</b>	4 x GE, sharing 1000Mbps bandwidth 10/100/1000Mbps auto-negotiation, speed and duplex mode configurable MTU: 9720 Bytes Flow Control: IEEE 802.3x in full duplex mode Back pressure in half duplex mode
<b>Fault Pass Through</b>	Close down local GE ports when local/peer fiber port has LOS/LOF, or peer GE ports link down
<b>Remote Power Off Alarm</b>	Supported
<b>VLAN &amp; Q-in-Q</b>	Port-VLAN/Tag-VLAN/Q-in-Q mode configurable 64 active VLAN group Q-in-Q supported
<b>QoS</b>	4 queue CoS/port-based Global queue scheduling : SP/WRR/SP+WRR
<b>Rate Limit</b>	Per port or per VLAN Egress/Ingress/Bi-directional Increments 64Kbps (64Kbps-1.792Mbps) 1Mbps (1.792Mbps-100Mbps) 8Mbps (100Mbps-1000Mbps)
<b>Storm Control</b>	Broadcast/Multicast/Unicast DLF storm control
<b>Management</b>	CLI-based management through local CONSOLE GUI-based SNMP management on Raisecom NView NNM system

## Specifications

<b>Fiber Port</b>	Coding: NRZ Speed: 1.25Gbps Interface Type: SFP
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## Compliances

<b>Standards &amp; protocols</b>	IEEE802.3-2002 IEEE802.3 10BaseT IEEE802.3u 100BaseTX
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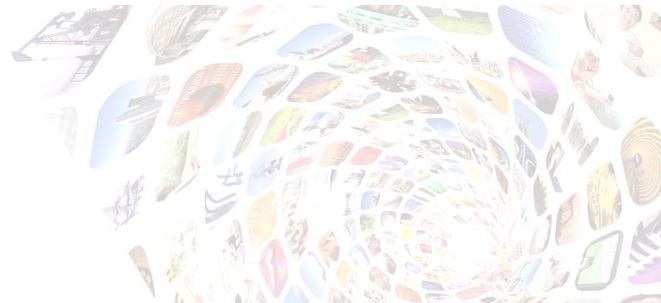


<b>E1 Port</b>	4 x E1 ports 120Ω balanced, RJ-45 connector 75Ω unbalanced, BNC connector Bit Rate: 2048Kbps±50ppm Code: HDB3
<b>GE Port</b>	10/100/1000Base-T RJ-45 Connector
<b>CONSOLE port</b>	RS232 Baud Rate: 9600 RJ-45 connector
<b>Indicator</b>	PWR for power supply SYS for system operation LPR for remote power off LOOP for E1 loopback test PAT for in-built bit error tester OPT-LOS/LOF/E-3/E-6 for fiber port E1-LOS for E1 tributaries LNK/ACT and 1000M for GE port
<b>DIP switch</b>	SW1: ALS/FPT/unused E1 alarm mask SW2: E1 impedance/loopback/bit error test
<b>Dimension</b>	43.6mm(H)×440mm(W)×220mm(D)
<b>Weight</b>	<2.7Kg
<b>Power supply</b>	AC: 100-240V DC: -48V WP: wide-range
<b>Power consumption</b>	≤ 7W
<b>Working environment</b>	Temp: -5~55 Celsius RH: ≤ 90% (35 Celsius)
<b>Storage environment</b>	Temp : -40~80 Celsius RH : 5~90% non-condensing

IEEE802.3x Flow Control
IEEE802.1Q VLAN
IEEE802.1ad QinQ
IEEE802.1p CoS Prioritization
ITU-T G.703, G.704, G.823

## Ordering Information

<b>RCMS2903-4E1-4GE-AC</b>	Multi-service FiberMUX, 4 E1 ports (120Ω balanced or 75Ω unbalanced, DIP switch configuration) plus 4 10/100/1000Mbps GE ports (sharing 1Gbps bandwidth, provided with basic L2 switching function) on client side, 1 SFP-based fiber port on line side, AC power supply
<b>RCMS2903-4E1-4GE-DC</b>	Multi-service FiberMUX, 4 E1 ports (120Ω balanced or 75Ω unbalanced, DIP switch configuration) plus 4 10/100/1000Mbps GE ports (sharing 1Gbps bandwidth, provided with basic L2 switching function) on client



side, 1 SFP-based fiber port on line side, DC power supply

**RCMS2903-4E1-4GE-WP**

Multi-service FiberMUX, 4 E1 ports (120Ω balanced or 75Ω unbalanced, DIP switch configuration) plus 4 10/100/1000Mbps GE ports (sharing 1Gbps bandwidth, provided with basic L2 switching function) on client side, 1 SFP-based fiber port on line side, WP wide-range power supply