

RCMS2911-16E1-4GE-BL Stand-Alone FiberMux

RCMS2911-16E1-4GE is a stand-alone Fibermux which provides 1+1 fiber ports for uplink and 16xE1 plus 4xGE ports at client side. The device can be perfectly fits in 2G/3G mobile backhaul and SME business connection applications. Power supply redundancy guarantees the reliability of the system. RCMS2911-16E1-4GE-BL supports two operation modes: simple mode and switching mode. In simple mode, the 4 GE ports are isolated; while in switching mode, the 4 GE ports plus the uplink port becomes a fully-functioned L2 switch. The device supports OAM, CFM, and CE-compliant service configuration. It can be fully managed as a separate NE on the GUI-based NView NNM system through the SNMP port on front panel.



RCMS2911-16E1-4GE-BL

Highlights

- High density unit** High-density fibermux with 16E1 + 4GE at for client connection
- High reliability** 1+1 uplink protection, power supply system with redundancy
- Layer-2 Switching** Capable of working as an intelligent layer-2 switch on Ethernet switching
- Demarcation Feature** Advanced Ethernet diagnostics tools standard OAM and CFM available on the device
- Easy Management** Management via local/remote CLI, and GUI-based NView NNM system

Typical Application

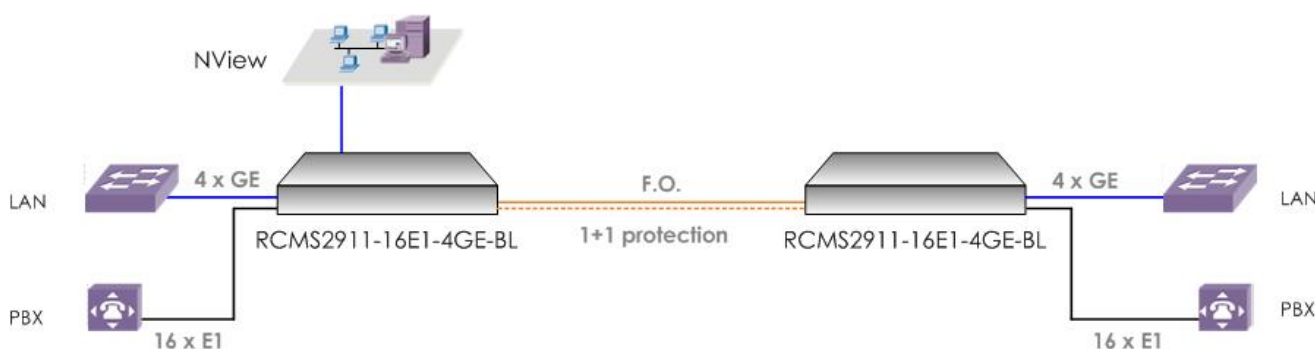


Figure.1 Point-to-Point Application

Features

Line side	2 x 100/1000Base-X SFP, 100Mbps/1000Mbps auto-sensing 1+1 protection, protection switching mode configurable ALS support
Client side E1	16 x E1, balanced E1 internal/external/bi-directional loopback Inbuilt E1 bit error tester
Client side Ethernet	2x GE: 10/100Mbps auto-negotiation, speed and duplex mode configurable 2x GE Combo: Electrical 10/100/1000Mbps auto-negotiation, speed and duplex mode configurable Optical SFP-based 100/1000Mbps auto-sensing MTU/Jumbo Frame: 9600 Bytes Flow Control
Fault Pass-through	Line side to client side Remote client to local client
MAC Address Table	32K MAC address Add/remove/search MAC address table entries View MAC address table statistics MAC address aging time configurable: 10-1000000s MAC address learning threshold per port: 8192 Optional MAC address table limit per port: 1-255
VLAN	4K active VLAN Q-in-Q, Selective Q-in-Q Switch port protection
QoS	8 queue per port Port/CoS/DSCP-based Queue scheduling : SP/WRR/SP+WRR CoS/DSCP remarking Service redirection
Rate Limit	Per port (ingress/egress/both) with increments 8Kbps (64Kbps~1Gbps), burst 1KB~16MB, ingress rate limiting, egress shaping Per VLAN with increments 8Kbps (64Kbps~1Gbps), burst 1KB~4MB
Storm Control	Broadcast/Multicast/DLF storm control
Port Mirroring	Mirroring of egress/ingress/bidirectional traffic of ports and LAG group
Link Aggregation	3 groups, up to 4 ports in each group
Loopback Detection	Support
Layer-2 Transparency	STP, LACP, DOT1X, LLDP Cisco: CDP, PVST, VTP

OAM	IEEE 802.3ah OAM (discovery, link performance monitor, remote loopback testing, remote failure indication, dying gasp)
CFM	IEEE 802.1ag ITU-T Y.1731
SLA	Layer-2/Layer-3 SLA
Security	User classification and password protection RADIUS TACACS+ Port isolation IP-based/MAC-based ACL
RMON	Group 1, 2, 3, 9
Layer-3 function	100 static/dynamic ARP 15 layer-3 interfaces 64 static route
Security	User classification and password protection RADIUS TACAS+ PPPoE+ Agent
Management	CLI-based management through local CONSOLE or remote Telnet/SSH GUI-based SNMP management on Raisecom NView NNM system

Specifications

LAN interface	2*10/100/1000Base-T RJ-45 connector 4*GE Combo 1*10/100/1000Base-T RJ-45 connector 1*100/1000Base-X
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Compliances

Standards & protocols	IEEE802.3-2002 IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.3x Flow Control IEEE802.1Q VLAN IEEE802.1ad QinQ
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WAN interface	SFP slot	IEEE802.3ad Link Aggregation
	16*E1 (balanced)	
CONSOLE port	RJ-45 connector	IEEE802.3ah OAM
	2*100/1000Base-X	IEEE802.1ag CFM
SNMP port	SFP slot	ITU-T Y.1731 Service OAM
	RS232	Static Routing
Indicator	Baud Rate: 9600	RMON I and II standards
	RJ-45 connector	SNMP v1/v2c/v3
Dimension	10/100Base-TX	ITU-T G.703, G.704, G.823, G.824
	RJ-45 connector	
	PWR for power supply	
	PWR1 for power supply 1	
	PWR2 for power supply 2	
	SYS for system operation	
	LPR for remote device power-off	
	E1-LOS for E1 alarms	
	LOOP for E1 loopback test	
	PAT for E1 bit error test result	
	WKA/LOSA for fiber optic uplink A	
	WKB/LOSB for fiber optic uplink B	
Weight	LOF/ERR for fiber optic uplink alarms	
	LNK/ACT and 1000M for GE port	
Power supply	LNK/ACT and 100M SNMP port	
	43.6(H)x440(W)x260(D)mm	
Power consumption	≤ 3.4kg	
	AC: 100-240V	
Working environment	DC: -48V	
	≤ 21W	
Storage environment	Temp: -5~50 Celsius	
	RH: 10~90% non-condensing	
Storage environment	Temp : -25~60 Celsius	
	RH : 5~90% non-condensing	

Ordering Information

RCMS2911-16E1-4GE-BL-AC	Stand-alone fibermux, fiber optic uplink with 1+1 protection on WAN side, 16 E1 (120Ω balanced, RJ-45) ports plus 2 GE copper and 2 GE COMBO ports on LAN side, SNMP manageable, dual AC power supply
RCMS2911-16E1-4GE-BL-DC	Stand-alone fibermux, fiber optic uplink with 1+1 protection on WAN side, 16 E1 (120Ω balanced, RJ-45)



ports plus 2 GE copper and 2 GE COMBO ports on LAN side, SNMP manageable, dual DC power supply

RCMS2911-16E1-4GE-BL-AC_DC

Stand-alone fibermux, fiber optic uplink with 1+1 protection on WAN side, 16 E1 (120Ω balanced, RJ-45)

ports plus 2 GE copper and 2 GE COMBO ports on LAN side, SNMP manageable, 1 AC and 1 DC power supply

RCMS2912-4/8E1T1GE Modular Multi-Service FiberMux

RCMS2912-4(8)E1T1GE is an ideal transmission device of optical fiber for point-to-point networks, medium-sized and small capacity networks, such as wireless communication base stations, private communication networks and switch networks. It is used to transmit E1/T1 and Gigabit Ethernet service in 1+1 protection optic cable up to 120 kilometers. The transmission capacity of RCMS2912-4(8)E1T1GE is eight E1/T1 channels plus 1000Mbps. RCMS2912-4(8)E1T1GE has local/remote alarm indicators on front panel and local/remote loop-back function benefiting fault location. Additionally its advanced features such as

redundant optical interface and remote device power-off alarm provide carries a flexible and reliable transmission solution of multiple E1/T1 and Gigabit Ethernet. Modular device RCMS2912-4(8)E1T1GE can be inserted in RC002-16 chassis or RC001-2M to realize SNMP management through GUI of Raisecom self-designed software NView NNM for monitor and configuration. The classical topology of RCMS2912-4(8)E1T1GE is point-to-point application with itself. Both local and remote side device can be managed through network management software NView NNM.

Feature

Main Feature	4/8 E1/T1 ports,1 GE port,2 SFP fiber interfaces Support 1+1 optical port protection E1 or T1 can be choiced by DIP switch or network management system Dying Gasp function Local and remote alarm indicator Local and remote loop-back function T1 loopback testing(GR-54) Flow control fuction
Optical Port	Code: Scrambled NRZ 150Mbps or 1.25Gbps, SFP connector module
GE Port	Port: RJ45 100/1000M auto-negotiation MDI/MDIX auto-negotiation Frame length: no limitation Complied with IEEE802.3 standard
E1 Port	Date rate: 2048Kbps+/-50ppm Code: HDB3 Port type: 120ohm balanced Complied with ITU-T G.703 and ITU-T G.823
T1 Port	Date rate: 1544Kbps+/-32ppm Code: B8ZS or AMI Port type: 100ohm balanced Complied with GR-499-CORE and ITU-T G.824

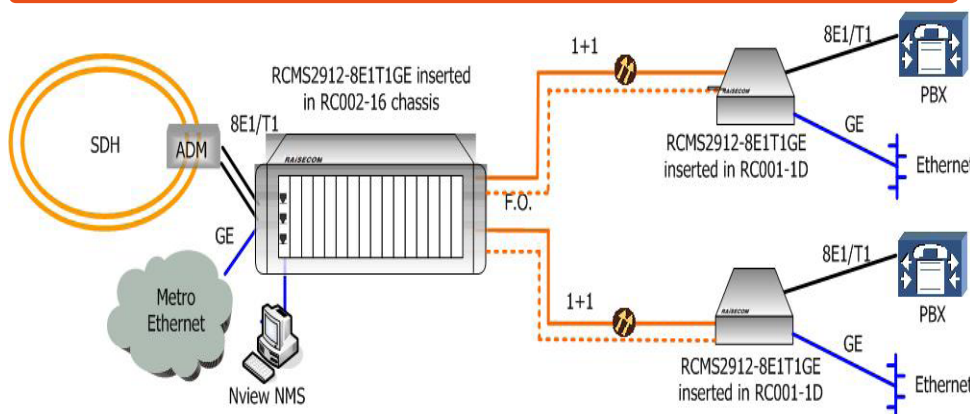


RCMS2912-4/8E1T1GE

Specification

Fixed port	2 optical ports 4/8 E1/T1 ports 1 Gigabit Ethernet port
E1/T1 Port	4 balanced E1/T1 interface (1 or 2 E1/T1 ports in 1 RJ45/ RJ48 interface)
Indicators	Power Supply Remote Power off E1/T1 Loss & others Optical port staufs Ethernet port status
Dimension	50mm×178mm×91mm (HxDxW)
Weight	0.23Kg
Working ambience	Temperature: 0 ~45 degree Centigrade Humidity: ≤90%
Power Consumption	<8W

Typical Application



Compliance

Standards & protocols	IEEE802.3,IEEE802.3x,I EEE802.3u; ITU-T G.703,ITU-T G.823,ITU-T G.824; ANSI T1.102; GR-499-CORE.
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RCMS2912-4/8E1T1GE Modular Multi-Service FiberMux

Ordering Information

Part Number	Description
RCMS2912-4E1T1GE	Four E1/T1 multi-service FiberMux, module in 3U chassis takes 2 slots, 4 E1/T1, 4 balanced RJ45/RJ48 connectors, 1 100/1000M Gigabit Ethernet port, 1+1 SFP optical interface
RCMS2912-8E1T1GE	Eight E1/T1 multi-server FiberMux, module in 3U chassis takes 2 slots, 8 E1/T1, 4 balanced RJ45/RJ48 connectors, 1 RJ45/RJ48 for 2 E1/T1, 1 100/1000M Gigabit Ethernet port, 1+1 SFP optical interface