

## 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

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

### Typical Application

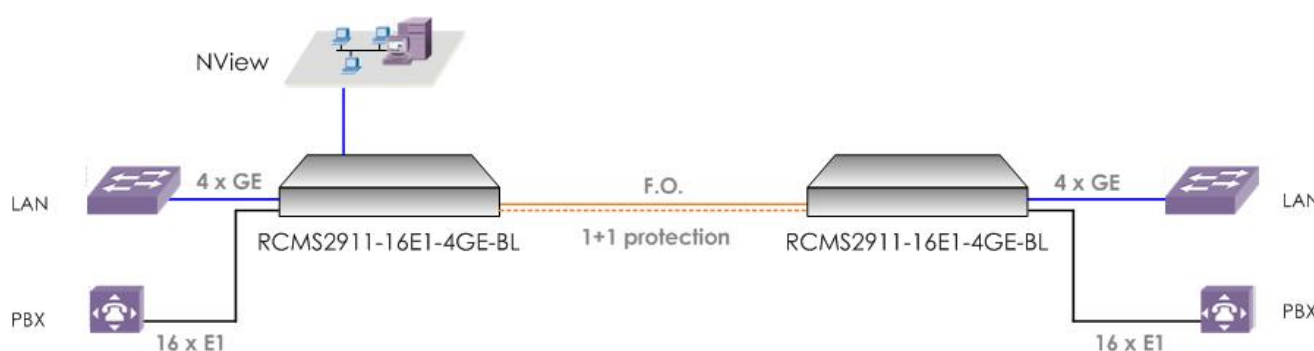


Figure.1 Point-to-Point Application

## Features

|                      |                                                                                                                                                                                                                                                                         |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Line side            | 2 x 100/1000Base-X SFP, 100Mbps/1000Mbps auto-sensing<br>1+1 protection, protection switching mode configurable<br>ALS support                                                                                                                                          |
| Client side E1       | 16 x E1, balanced<br>E1 internal/external/bi-directional loopback<br>Inbuilt E1 bit error tester                                                                                                                                                                        |
| Client side Ethernet | 2x GE: 10/100Mbps auto-negotiation, speed and duplex mode configurable<br>2x GE Combo:<br>Electrical 10/100/1000Mbps auto-negotiation, speed and duplex mode configurable<br>Optical SFP-based 100/1000Mbps auto-sensing<br>MTU/Jumbo Frame: 9600 Bytes<br>Flow Control |
| Fault Pass-through   | Line side to client side<br>Remote client to local client                                                                                                                                                                                                               |
| MAC Address Table    | 32K MAC address<br>Add/remove/search MAC address table entries<br>View MAC address table statistics<br>MAC address aging time configurable: 10-1000000s<br>MAC address learning threshold per port: 8192<br>Optional MAC address table limit per port: 1-255            |
| VLAN                 | 4K active VLAN<br>Q-in-Q, Selective Q-in-Q<br>Switch port protection                                                                                                                                                                                                    |
| QoS                  | 8 queue per port<br>Port/CoS/DSCP-based<br>Queue scheduling : SP/WRR/SP+WRR<br>CoS/DSCP remarking<br>Service redirection                                                                                                                                                |
| Rate Limit           | Per port (ingress/egress/both) with increments 8Kbps (64Kbps~1Gbps), burst 1KB~16MB, ingress rate limiting, egress shaping<br>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<br>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<br>ITU-T Y.1731                                                                                              |
| SLA              | Layer-2/Layer-3 SLA                                                                                                       |
| Security         | User classification and password protection<br>RADIUS<br>TACACS+<br>Port isolation<br>IP-based/MAC-based ACL              |
| RMON             | Group 1, 2, 3, 9                                                                                                          |
| Layer-3 function | 100 static/dynamic ARP<br>15 layer-3 interfaces<br>64 static route                                                        |
| Security         | User classification and password protection<br>RADIUS<br>TACAS+<br>PPPoE+ Agent                                           |
| Management       | CLI-based management through local CONSOLE or remote Telnet/SSH<br>GUI-based SNMP management on Raisecom NView NNM system |

## Specifications

|               |                                                                                                                    |
|---------------|--------------------------------------------------------------------------------------------------------------------|
| LAN interface | 2*10/100/1000Base-T<br>RJ-45 connector<br>4*GE Combo<br>1*10/100/1000Base-T<br>RJ-45 connector<br>1*100/1000Base-X |
|---------------|--------------------------------------------------------------------------------------------------------------------|

## Compliances

|                       |                                                                                                                               |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|
| Standards & protocols | IEEE802.3-2002<br>IEEE802.3 10BaseT<br>IEEE802.3u 100BaseTX<br>IEEE802.3x Flow Control<br>IEEE802.1Q VLAN<br>IEEE802.1ad QinQ |
|-----------------------|-------------------------------------------------------------------------------------------------------------------------------|

|                     |                                       |
|---------------------|---------------------------------------|
|                     | SFP slot                              |
|                     | 16*E1 (balanced)                      |
|                     | RJ-45 connector                       |
| WAN interface       | 2*100/1000Base-X                      |
|                     | SFP slot                              |
| CONSOLE port        | RS232                                 |
|                     | Baud Rate: 9600                       |
|                     | RJ-45 connector                       |
| SNMP port           | 10/100Base-TX                         |
|                     | RJ-45 connector                       |
| Indicator           | 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     |
|                     | LOF/ERR for fiber optic uplink alarms |
|                     | LNK/ACT and 1000M for GE port         |
|                     | LNK/ACT and 100M SNMP port            |
| Dimension           | 43.6(H)x440(W)x260(D)mm               |
| Weight              | ≤ 3.4kg                               |
| Power supply        | AC: 100-240V                          |
|                     | DC: -48V                              |
| Power consumption   | ≤ 21W                                 |
| Working environment | Temp: -5~50 Celsius                   |
|                     | RH: 10~90% non-condensing             |
| Storage environment | Temp : -25~60 Celsius                 |
|                     | RH : 5~90% non-condensing             |

|                                  |
|----------------------------------|
| IEEE802.3ad Link Aggregation     |
| IEEE802.1p CoS Prioritization    |
| IEEE802.3ah OAM                  |
| IEEE802.1ag CFM                  |
| ITU-T Y.1731 Service OAM         |
| Static Routing                   |
| RMON I and II standards          |
| SNMP v1/v2c/v3                   |
| ITU-T G.703, G.704, G.823, G.824 |

## 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)                                                                                                |

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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