

## Overview

The RP101 is a point-to-point optical transmission equipment based on Application Specific Integrated Circuit (ASIC). It can realize the 4/8/16 E1s and a 1000Mbps Ethernet data channel transmission over optical line of 1.25Gb/s.

RP101 provides a hot-pluggable optical interface (SFP optical module), supports Automatic Laser Shutdown (ALS), Remote Power down Detect (RPD), prevent Ethernet frames from looping back in case of unexpected optical loopback and so on.

It supports the management based on Command Line Interface (CLI). With the super terminal integrated by PC, user can realize the monitor and configuration of the local/remote device. It can be managed by RP1000 and the Simple Network Management Protocol (SNMP) can be supported via RP1000.

With low power consumption, high integration and well stability, it is a cost-competitive solution for the application where gigabit Ethernet and E1 are required simultaneously, such as the telecommunication, the electric power and the finance fields.

## Features

- Compact design with 1U height, and can be installed on standard rack
- Realizes up to 16 E1s and a 1000M wire-speed Ethernet mixed multiplexing to optical fiber
- Optical interface
  - one optical interface, SFP optical module (LC interface), Hot plugging
  - The line bit rate is 1.25Gb/s, transmission distance is optional (depend on the SFP optical module)
  - SFP MSA(INF-8074i), ITU-T G.695, FC-PI V2.0 standards compliable
  - Provides optical loopback function, a great convenience for trouble shooting
  - Supports ALS function supportable
  - Supports Remote Power down Detect (RPD) function
- E1 interface
  - Provides 4/8/16 E1 interfaces, 120Ω balanced,RJ48C connector
  - Jitter tolerance, jitter transfer characteristic and jitter generation fully comply with ITU-T G.823 and G.742 recommendations
  - Supports Local/remote device loop and E1 line loop, which is convenient for E1

line testing

■ Ethernet interface

- One electrical Gigabit Ethernet interface compliant with IEEE802.3 serial standard, adopts RJ45 connector, work in auto-negotiation enabled,1000M full-duplex mode
- Supports Energy Efficient Ethernet compliant with IEEE802.3az standard
- Proprietary technique (patent pending) adopted to prevent Ethernet frames from looping back in case of unexpected optical loopback
- The maximum packet length is 12288 bytes, and the minimum packet length is 64 bytes.

■ Network management interface

- Supports CLI based on RS232 (CONSOLE) management interface, implement local/remote device management and monitor
- Supports Simple Network Management Protocol via RP1000

■ Supports hot-spare power, the power consumption is less than 8W

- -48V DC single power access
- 220V AC single power access
- -48V DC&220V AC double power access

## Application

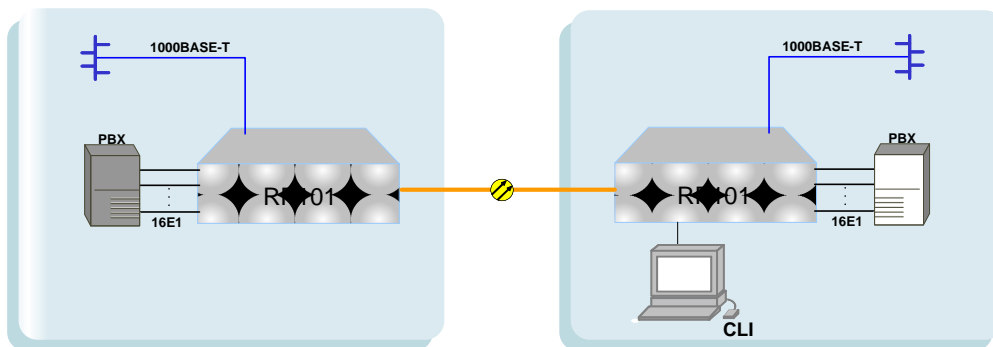


Fig. 1 Application I

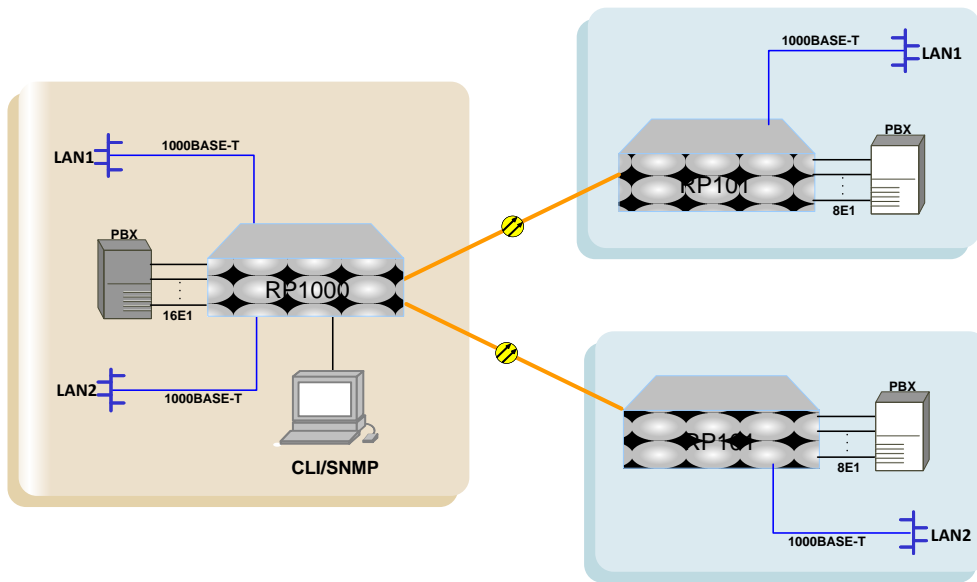


Fig. 2 Application II

