

Comet 1602R Comet 1604R

10Mbps@3Km G.SHDSL.bis Industrial Ethernet Extender



- Symmetric H.264 or MPEG4 HD quality video streaming over 3Km
- Point to point Ethernet extension over multiple copper lines
- 1 or 2 pairs G.SHDSL.bis with 5.7Mbps per pairs
- Supports extension rate up to 30Mbps over 2 pairs of copper
- Easy installation with DIP switch, Telnet, WEB GUI and SNMP
- Automatic line rate selection with Line Probe enabled
- Front panel status LED indicators for easy monitoring
- Front panel test button with BERT for easy loop diagnostic
- Easy software upgrade for field-deployed units via TFTP
- DSL line protection for data transmission
- Ethernet switching and bridging with VLAN prioritization and QoS
- Supports security-link
- CO and CPE mode selectable
- Optional Ethernet port surge protection
- Compliant with IEEE 802.3ah EFM 2Base-TL bonding technology
- Compliant with ITU-T G.991.2 standard, TC-PAM 16/32/64/128 line coding

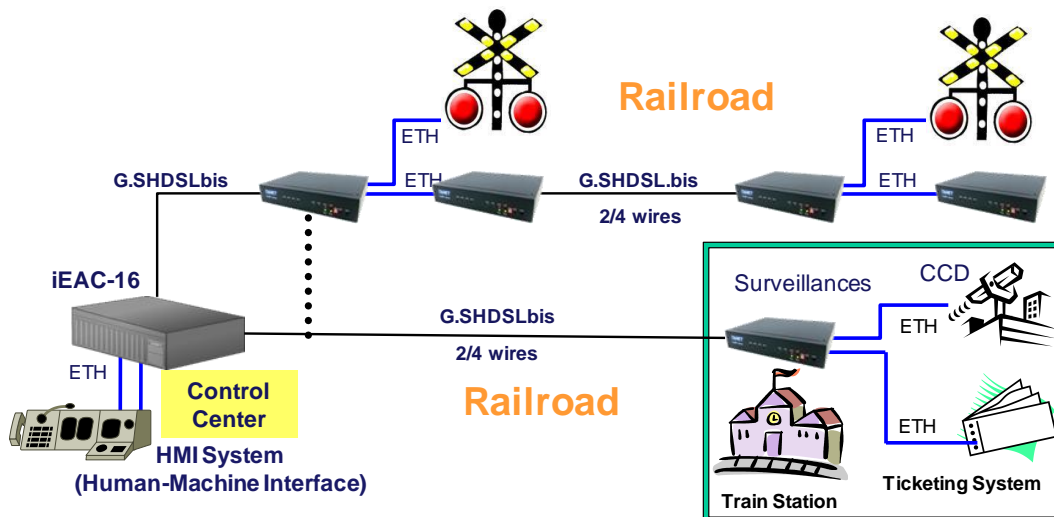
TAINET's Comet 160xR EFM series is the so called Ethernet Access Devices (EAD), Ethernet Media Data Converter (MDC) or Ethernet DSL modem at industrial grade, which takes advantage of the latest G.SHDSL.bis standard. This mini-terminal enables the transport of traffic from Ethernet interface with speed of 15M/30Mbps over EFM bonded 2/4 wires G.SHDSL.bis link.

TAINET's Comet 160xR industrial G.SHDSL.bis modem is in compliance with EN50121-4 ETS EMC. This proves that not only can TAINET products operate and sustain on railways, but they can also work well under harsh conditions.

Comet 160xR EFM series supports high-speed dedicated symmetrical data transmission and utilizes DSL bandwidth. The automatic adjusting line rate can be up to 15Mbps over 2-wire copper line symmetrically. Comet 1602R/1604R series typically works as an Ethernet extender, with up to 4 wires that could enhance the line rate and provide aggregated bandwidth up to 30Mbps. Furthermore, Comet 1602R/ 1604R is fully compatible with TAINET iEAC-16, the intelligent Ethernet access chassis. This combination is designed to work as a central office especially for long distance Ethernet Access Service. It covers the ADSL/VDSL's disadvantages of distance limitation by offering multi-pair bonding services.

Comet 160xR EFM series is an ideal solution for Railways, Telecom Carriers, Service Providers and business users. In order to reduce operation/management burden, based on ITU-T recommendation G.991.2 standards, Comet 160xR EFM series can control and monitors its remote units via the Embedded Operation Channel (EOC). Administrators of Comet 160xR EFM series are entitled to configure the modems through Telnet (SSH), Web(HTTP/HTTPS) or SNMP v1/v2c agent with ease.





Model

- Comet 1602R, 2-wire, 4 Ethernet ports
- Comet 1604R, 4-wire, 4 Ethernet ports

Line Interface - G.SHDSL.bis

- Type: 2 or 4-wire
- Standard: ITU-T G.991.2, ETSI 101 524
- Bonding protocol: IEEE 802.3ah EFM 2Base-TL
- Line rate: $n \times 64\text{Kbps}$, $n=3\sim 239$ (2w), $6\sim 478$ (4w)
- Rate1: Symmetric 10Mbps over 3Km@24AWG (0.5mm)
- Rate2: Symmetric 384Kbps over 9Km@24AWG (0.5mm)
- Connector: 1xRJ-45
- Line coding: TC-PAM 16/32/64/128
- Impedance: 135 Ω

DTE Interface - Ethernet

- Ethernet type: 10/100 BaseT
- Connector: RJ-45
- Auto-MDI/MDIX detection
- Auto-negotiation for speed and duplex
- Full duplex / Half duplex support

Ethernet L2 function

- Supports 802.1d transparent bridge function
- Supports Bridge filter function based on source MAC addresses
- Scalable per port bandwidth control (Step = 64K, up to 100M)
- 2K MAC learning address
- Ethernet packet length up to 1664 bytes
- Supports 802.3x flow control
- Provides 802.1q VLAN tagging
- Supports 802.1p QoS facility

Management

- Configuration via DIP switch, Telnet (SSH), WEB (HTTP/HTTPS) and SNMP v1/v2c
- Multiple Web browsers supported: IE, Firefox, Chrome
- Supports remote management
- Local and Remote status for diagnostic
- Supports Performance Monitoring function
- Front panel test button for easy loop healthy testing
- Front panel reset to default button

LED Indicators

- PWR, TST, ALM, CPE, DSL1~2, LAN1~4
- Dual color LED for easy status monitoring

Power Requirement

- 9~36VDC or 18~60VDC
- Power consumption: 6W

Certification

- ISO 9001 Quality Management
- China CCC Quality Certification
- CE Approval, EN 55022, 55024, 61000-3
- CE LVD Safety, IEC-60950-1, EN 60950-1
- FCC Part 15, CISPR 22, ANSI C63.4
- Railway EMC 50121-4
- ITU-T K.21 Compliant

Dimension

- 210(W) x 146(D) x 37(H) mm

Operating Environment

- Operation Temperature: 0 $^{\circ}\text{C}$ ~ 75 $^{\circ}\text{C}$
- Storage Temperature: -40 $^{\circ}\text{C}$ ~ 85 $^{\circ}\text{C}$
- Humidity: 90%, non-condensing