Comet 1600 EFM Series

EFM G.SDHSL.bis

- Point to point Ethernet extension over multiple G.SHDSL.bis copper lines
- IEEE 802.3ah EFM 2Base-TL bonding technology
- Compliant with ITU-T G.991.2 standard, TC-PAM 16/32/64/128 line coding
- 1, 2 or 4 pairs G.SHDSL.bis with 5.7Mbps per pairs
- Support extension rate up to 15Mbps over a single pair of copper
- CO and CPE mode selectable
- Automatic line rate selection with Line Probe enabled
- Front panel status LED indicators for easy monitoring
- Easy installation with console, Telnet, WEB GUI and SNMP*
- Front panel test button with BERT for easily loop diagnostic
- Provides extensive diagnostics, including loopback, G.SHDSL.bis performance monitoring
- Easy software upgrade for field-deployed units via TFTP
- DSL line protection for data transmission
- Ethernet switching and bridging with VLAN prioritization and QoS
- Optional temperature-controlled FAN
- Optional Ethernet port surge protection
- *Support security-link feature

TAINET's Comet 1600 EFM series, which takes advantage of the latest G.SHDSL.bis standard, is a mini-terminal enabling the transport of traffic from Ethernet interface with speed 5.7M/11.4M/22.8M over EFM bonded 2/4/8 wires G.SHDSL.bis link.

Comet 1600 EFM series supports high-speed dedicated symmetrical data transmission and utilizes DSL bandwidth. The automatic line rate can be up to 5.7Mbps over 2-wire copper line. Comet 1602/1604/1608 series works as Ethernet extender, with up to 8 wires it could enhance rate and provide the aggregated bandwidth over 22Mbps.

Comet 1600 EFM series is a perfect solution for Telecom Carrier, Service Providers and business users. To reduce operation/management burden, Comet 1600 EFM series can control and monitor remote unit via Embedded Operation Channel (EOC), by following ITU-T G.991.2. Administrators can also easily configure Comet 1600 EFM series through the Telnet, Web/HTTP or through SNMP* agent.

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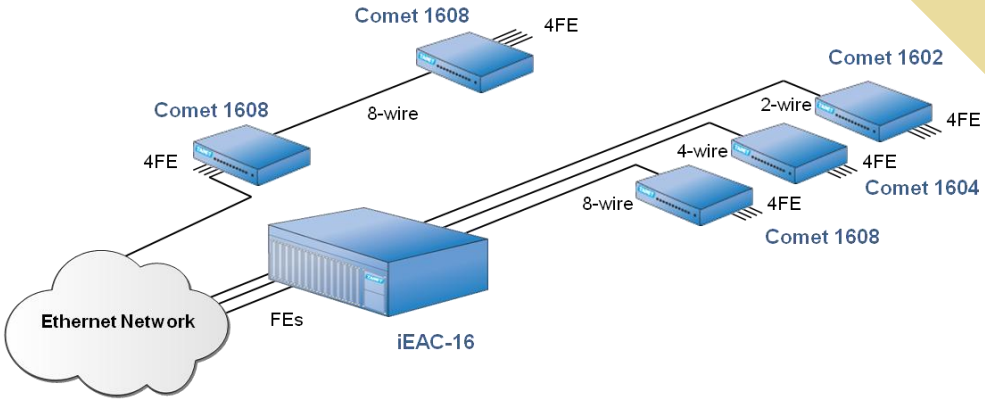

Model

- Comet 1602, 2-wire, 4 Ethernet ports
- Comet 1604, 4-wire, 4 Ethernet ports
- Comet 1608, 8-wire, 4 Ethernet ports

Line Interface - G.SHDSL.bis

- Type: 2, 4 or 8-wire
- Standard: ITU-T G.991.2, ETSI 101 524
- Bonding protocol: IEEE 802.3ah EFM 2Base-TL
- Line rate: n x 64Kbps, n=3~89 (2w), 6~178 (4w), 12~356 (8w)
- Connector: 1xRJ-45
- Line coding: TC-PAM 16/32/64/128
- Impedance: 135 Ω
- ITU K.21 compliant

DTE Interface - Ethernet

- Ethernet type: 10/100 BaseT
- Connector: RJ-45
- Support 802.3x flow control
- Auto-MDI/MDIX detection
- Auto-negotiation for speed and duplex
- Full duplex / Half duplex support

Timing Source Function

- Internal clock
- Received clock from DSL line

Ethernet L2 function

- Support 802.1d transparent bridge function
- Supporting 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 1522/*1664 bytes
- Support 802.3x flow control
- Provide 802.1q VLAN tagging
- Support 802.1p QoS facility

Management

- Configuration via craft port VT-100, Telnet, WEB GUI and SNMP*
- Multiple Web browsers supported: IE, Firefox, Chrome
- Console: DB9 connector (RS232C)
- Support remote management
- Local and Remote loopback for diagnostic
- Support Performance Monitoring function
- Front panel test button for easily loop healthy testing
- Front panel reset to default button

LED Indicators

- Comet 1602/1604/1608:
  PWR, TST, ALM, CPE, DSL1~4, LAN1~4
- Dual color LED for easily status monitoring

Power Requirement

- AC/DC, DC/DC external power adapter (12V, 1A)
- Dual 12VDC power jack input for redundancy
- Power consumption: 6W

Dimension

- 200(W) x 150(D) x 39(H) mm

Operating Environment

- Operation Temperature: 0 ^{o}C ~ 50 ^{o}C
- Storage Temperature: -40 ^{o}C ~ 70 ^{o}C
- Humidity: 90%, non-condensing

"*" future available

Ordering Information

Note:

1. Supplied Accessories: 1xRJ45 cable and 1xPhoneBox for DSL connection, please specify the 1st AC or DC power adapter type below
2. If redundant power is required, please order the 2nd AC or DC power adapter /?2 additionally
3. If necessary, please order the console cable /^ and user interface cable />

Product Code	Part/Ordering No.	Description
Comet 160x G.SHDSL.bis Ethernet Modem		
Comet 1602/AC /?2/^/>	000-999-0001	2-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
Comet 1602/DC /?2/^/>	000-999-0002	2-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
Comet 1604/AC /?2/^/>	000-999-0003	4-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
Comet 1604/DC /?2/^/>	000-999-0004	4-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
Comet 1608/AC /?2/^/>	000-999-0005	8-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
Comet 1608/DC /?2/^/>	000-999-0006	8-wire G.SHDSL.bis EFM bonded standalone unit, support 4 Ethernet (RJ45) interfaces, dual 12VDC power jacks for power redundancy
/AC, Please specify the 1st AC power adapter		
/A		North American AC-DC LINEAR ADAPTOR, 120VAC/60Hz ~ 12VDC/1.0A
/C		China AC-DC LINEAR ADAPTOR, 220VAC/50HZ ~ 12VDC/1.0A
/E		European AC-DC SWITCH ADAPTOR, 100-230VAC ~ 12VDC/1.0A
/J		Japan AC-DC LINEAR ADAPTOR, 100VAC/50-60Hz ~ 12VDC/1.0A
/DC, Please specify the 1st DC power adapter		
/D3		DC-DC SWITCH ADAPTOR, 36-72VDC ~ 12VDC/1.5A
/D24		DC-DC SWITCH ADAPTOR, 18-36VDC ~ 12VDC/1.0A
/?2, Optional 2nd power adapter for redundant capability		
/A	500-010-0050L	North American AC-DC LINEAR ADAPTOR, 120VAC/60Hz ~ 12VDC/1.0A
/C	500-010-0079L	China AC-DC LINEAR ADAPTOR, 220VAC/50HZ ~ 12VDC/1.0A
/E	500-010-0087L	European AC-DC SWITCH ADAPTOR, 100-230VAC ~ 12VDC/1.0A
/J	500-010-0051	Japan AC-DC LINEAR ADAPTOR, 100VAC/50-60Hz ~ 12VDC/1.0A
/U	500-010-0090L	U.K. AC-DC SWITCH ADAPTOR, 100-240VAC ~ 12VDC/1.0A
/D3	500-100-0010L	DC-DC SWITCH ADAPTOR, 36-72VDC ~ 12VDC/1.5A
/D24	500-010-0107L	DC-DC SWITCH ADAPTOR, 18-36VDC ~ 12VDC/1.0A
/^, Optional Console Cable		
/RS-232 cable	3301-000-007L	DB9P(M)-DB9P(F) 1M 26AWG
/>, Optional adapt cable & box		
/Phone box	350-150-0001L	RJ45 Terminal box, for E1 or DSL loop
/RJ45 Cat5e	330-080-0010L	RJ45 CAT5e twist cable 1.8M, 24AWG, for E1, DSL loop or Ethernet