**PIXIE** is a Modem Router with G.SHDSL uplinks. With the symmetrical data transmission up to 22.8 Mbps on 2-pairs, G.SHDSL.bis satisfies the needs of multiple users, who need both bandwidth and permanent data connection. It cost-effectively extends multiple Ethernet services on existing copper lines. It could act as the gateway for small and medium enterprises to connect to Internet with adequate number of Ips and security functions. Flexible configuration of QoS enables SME customers to define different flows like VoIP, video and data with guaranteed or maximum bandwidth allocation.

This device works as the demarcation point between carriers and customers and saves the cost of SME customers from buying additional small routers for their security and routing requirements. If the EPL and EVPL are required for much bigger organizations and branches, it could also deliver Layer2 Carrier Ethernet service for point to point in Bridge mode.

**Key Features**

| Main feature | **Compact and high performance.**  
| **Supports G.SHDSL.bis Technology** |
| | TCPAM 64 (per pair - 11Mbps) support,  
| | EFM bonding  
| | Max 22.8Mbps (11.4Mbps/1 pair) |
| **LAN protocols support** | IEEE 802.1Q (VLAN Tagging) - 4K  
| | Security & efficient Bandwidth.  
| | Double Tagging -Q-in-Q.  
| | Quality Of Service  
| | Traffic priority: L2 (IEEE 802.1P - Ethernet priority) and L3 (ToS/Diff-Serv)  
| | classification with four traffic classes  
| | IEEE 802.1D Support (STP & RSTP)  
| | IEEE 802.3ad (Link Aggregation) Support  
| | IEEE 802.1lad Support (Provides Bridges) |
| **WAN protocols support** | Ethernet bridging, EFM encapsulation  
| | Routing capability - Static and Dynamic routing (RIPv1/V2), OSPF, PPPoE (RFC 2416) |
| **Diagnostics** | Ping & Trace route - For Ethernet interface |
| **Management** | Menu driven via RS-232 console port  
| | Web Browser (HTTP & HTTPS), SNMP V1,V2C & V3, Telnet, RCMP, GUI-based configuration;  
| | LED indication for System & port Status  
| | Supports EOC for Configuring & supervising remote unit, Password Protection, PAP and CHAP support Firmware upgrade via FTP, TFTP applications & web interface |
| **Firewall** | Stateful Packet inspection & DoS protection  
| | Compact in high performance standalone unit  
| | DMZ port support to host servers  
| | Firewall policies between LAN, WAN & DMZ ports, Network address translation / Port Address Translation (NAT / PAT) support |
**Features**

**Firewall**
- VPN IPSec and PPTP, Data encryption (DES, 3DES & AES)
- VPN Pass-Through (IPSec & PPTP)
- Hardware Accelerated VPN Gateway Authentication (SHA-1, MD5)
- Manual Key, IKE, PKI (X.509)
- IPSec NAT Traversal
- Maximum of up to 100 IPSec VPN Tunnels
- Real time logs & Content filtering

**General features**
- Multicast/Broadcast limiting and advanced OAM functionality
- Port & application based rate Control
- DHCP server and client, DHCP relay
- Mac count limiting and MAC Filtering
- DHCP snooping and DNS server proxy
- IGMP Snooping Support
- IP Multicasting (IGMP)
- Support for mac addresses- Total number
- Rate Limiting for Broadcast & Multicast
- VPN Passthrough
- Mac based access list
- Ingress & Egress Rate Limiting
- Priority Bandwidth Utilization
- Integrated line test capability
- Fault propagation

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**Application**

- PIXIE at CO functioning as a Bridge and PIXIE at CP functioning as a Modem Router
- Operates as a firewall for stateful packet inspection

**PIXIE PTP APPLICATION**

**PIXIE PTMP APPLICATION**
Ordering PIXIE

<table>
<thead>
<tr>
<th>Model</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PIXIE-4R/AC/DC</td>
<td>PIXIE, SHDSL Modem Router, built-in firewall, 4-Ethernet ports, supporting data transmission up to 22.8Mbps on dual pair</td>
</tr>
<tr>
<td>PIXIE-2R/AC/DC</td>
<td>PIXIE, SHDSL Modem Router, built-in firewall, 4-Ethernet ports, supporting data transmission up to 11.4Mbps on single pair</td>
</tr>
</tbody>
</table>

Technical Specifications

- **WAN interface**
  - Interface: G.SHDSL (1 no)
  - Connector: RJ-45
  - Coding: TCPAM 64 support, Annex-A,B,F,G support
  - Indicators: LNK, STU-C

- **LAN interface**
  - Interface: 4*10/100M auto-negotiation
  - Connector: RJ-45
  - Mode: Full/half duplex mode, Auto MDI/MDI-X, 100m distance
  - Indicators: LNK, STU-C

- **Standards and protocol**
  - IEEE802.3-2002
  - IEEE802.3ah-2004
  - IEEE802.3ad
  - IEEE802.1ad
  - IEEE802.1D
  - RFC2011 SNMPv2
  - RFC2012 SNMPv2
  - RFC2013 SNMPv2
  - RFC2416

- **Power supply**
  - AC & DC Power supply option via single power socket
  - Power consumption: ≤ 8W (at max load)

- **Operating environment**
  - Temperature: 0—45 centigrade
  - Relative Humidity: 10—90% non-condensing

- **Storage environment**
  - Temperature: -25—60 centigrade
  - Relative Humidity: 5—95% non-condensing

- **Dimension**
  - 1U high, stand-alone

- **Weight**
  - < 2Kg