Extended Ethernet

SMC7816M/VSW
TigerAccess™ Extended Ethernet Switch

OVERVIEW

SMC's VDSL2 Extended Ethernet network solution provides an alternative cost-effective solution for network/Internet access to multi-unit buildings or enterprise environments such as hospitals, universities, and manufacturing facilities. Using existing category 1, 2, or 3 wiring, SMC's Extended Ethernet technology is able to deliver up to 100Mbps of broadband connection for distances up to 5000 feet/1500m. SMC's Extended Ethernet solution minimizes the hassle involved in rewiring by delivering both voice and data access on the same line as Plain Old Telephone Service (POTs). SMC's EE solution is the best choice for service providers to supply broadband access with minimal changes to existing wiring infrastructure.

VDSL2 delivers higher speeds than are possible using VDSL1 or ADSL2+ technology. This enables the provider to offer a larger range services over the existing telephone wires which have been unavailable due to the high bandwidth requirements such as HDTV streaming and Video On Demand. The TigerAccess™ Extended Ethernet Solution includes the TigerAccess™ EE Switch and TigerAccess™ EE CPE (Customer Premise Equipment). SMC's Extended Ethernet Switch-SMC7816M/VSW combines voice and high speed data signals for delivery over standard telephone cable to multiple users in residential or commercial buildings. Ethernet data signals are received on the uplink ports of the switch and passed to the 16 Extended Ethernet ports on the front panel. These data signals are then passed to the CPE via the other Extended Ethernet connector on the front panel. The switch supports a full L2/L4 Management agent along with 2 built in Gigabit combo ports (RJ-45/SFP) and SFP ports that support SX, LX and ZX transceivers. The fiber transceiver ports can provide direct connection to your ISP with fiber optic cable.

FEATURES	BENEFITS
16 ports of VDSL2	Up to 100Mbps of bandwidth available for advanced applications
2 built in Gigabit Combo ports (RJ-45/SFP)	Up to 2Gbps bandwidth can be provided for up- linking to a server or another switch
QoS that supports four levels of priority	Ensures smooth transmission of mission critical data and multimedia application
Secure Management Access using SSH, SSL or SNMPv3	Added protection of secure management
Rate Limiting	Facilitates bandwidth control under MTU/MDU condition
RADIUS Client	Provides network access authentication
Limited lifetime warranty	Investment protection and quality assurance

PORTS
- 2 x RJ-21 Ports (contains 16 Extended Ethernet Ports)
- 2 x Gigabit combo ports (RJ-45/SFP)
- 1 x 100BASE-T Management Port

NETWORK INTERFACE
- Ethernet Expansion:
  - 10BASE-T: RJ-45 UTP category 3, 4, 5
  - 100BASE-TX: RJ-45 UTP category 5
  - 100BASE-FX: MMF SC/ST connector
  - 1000BASE-T: RJ-45 connector
  - 1000BASE-SX: MMF SC/LC connector; 62.5/125 or 50/125 microns
  - 1000BASE-LX: SMF SC/LC connector; 9/125 microns
- Extended Ethernet:
  - 10BASE-S: RJ-21; one-pair category 1, 2, or 3 UTP cabling

EXTENDED ETHERNET SPECIFICATIONS
- VDSL2 Standards: supports evolving ETSI, ANSI and ITU standards
- Modulation: 4 to 256 QAM Frequency Division Duplexing

SPEED/DISTANCE
- Up to 100Mbps symmetrical transmission rate at 656 ft / 200m distance
- Up to 50 Mbps symmetrical transmission rate at 4000 ft/ 1200m distance
- Up to 15 Mbps symmetrical transmission rate at 5000 ft/ 1500m distance

LEDs
- System: Power, Fault, Diag
- Uplink Ports : E , O
- VDSL2 Ports : Link/Activity
- Management Port : Mgmt

SWITCHING DATABASE
- 8K MAC address entries

BUFFER ARCHITECTURE
- 16Mb shared

MTBF
- 6 years

SWITCH FEATURES
- Spanning Tree Protocol
- Forwarding Mode: Store-and-forward
- Full Duplex Flow Control, Half Duplex Back Pressure
- VLAN Support: Up to 256 groups with GVRP; port-based or with 802.1Q VLAN tagging
- Quality of Service; supports four levels of priority and WRRQ
- MultiLink Trunking (LACP)
- Port Mirroring
- IGMP Multicast Filtering
- RADIUS Client
- Rate Limiting

MANAGEMENT FEATURES
- In-band: Telnet, SSHv2, HTTP, HTTPS or SNMP Manager including SNMPv3
- Out-of-band: RS232 DB9 console port
- Software Loading: TFTP (in-band), Xmodem (out-of-band)
- RMON Support: Groups 1, 2, 3, 9 (statistics, history, alarm, event)

STANDARD
- IEEE802.3 Ethernet, IEEE802.3u Fast Ethernet, IEEE802.3ab/z Gigabit Ethernet, IEEE802.3x Flow Control
- IEEE802.1D IEEE802.1w Rapid Spanning Tree, IEEE802.1p Priority Tags, IEEE802.1Q VLAN, IEEE802.1ac VLAN Tagging, IEEE802.1ad Link Aggregation

TEMPERATURE
- Operating: 32°F - 122°F / 0°C - 50°C
- Storage: : -40°C - 158°F / -40°C - 70°C

HUMIDITY
- Operating: 5% to 90% (non-condensing)

HEAT DISSIPATION
- 211 BTU/hr maximum

WEIGHT
- 6.44lbs
- 2.92kg

DIMENSIONS
- 44.0 x 35.2 x 6.6 cm
- 17.4 x 13.9 x 2.6 in

POWER CONSUMPTION
- 61.68W max.

POWER SUPPLY
- Internal, auto-ranging transformer: 100 - 240VAC, 50 - 60 Hz
- Maximum Current: 0.5A max. @110V, 0.25A max. @240V

COMPLIANCES
- CE Mark

EMISSIONS
- FCC Class A
- FCC Part 68
- Industry Canada Class A
- EN 61000-3-2/3
- EN55022 (CISPR 22) Class A
- JATE

IMMUNITY
- EN 61000-4-2/3/4/5/6/8/11

SAFTEY
- CSA/CUS (CSA 22.2. NO 60950-1 & UL60950-1)
- CB (IEC60950-1)
- EN60950 (TUV/ GS)

WARRANTY
- Limited Lifetime

SLIDE-IN TRANSCEIVERS FOR COMBO PORTS
- SMC1GSFP-SX
  - 1G SX SFP Transciever, 550M, Multimode fiber
- SMC1GSFP-LX
  - 1G LX SFP Transciever, 10Km, Singlemode fiber
- SMC1GSFP-ZX
  - 1G LH SFP Transciever, 70Km Singlemode fiber

Contact

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