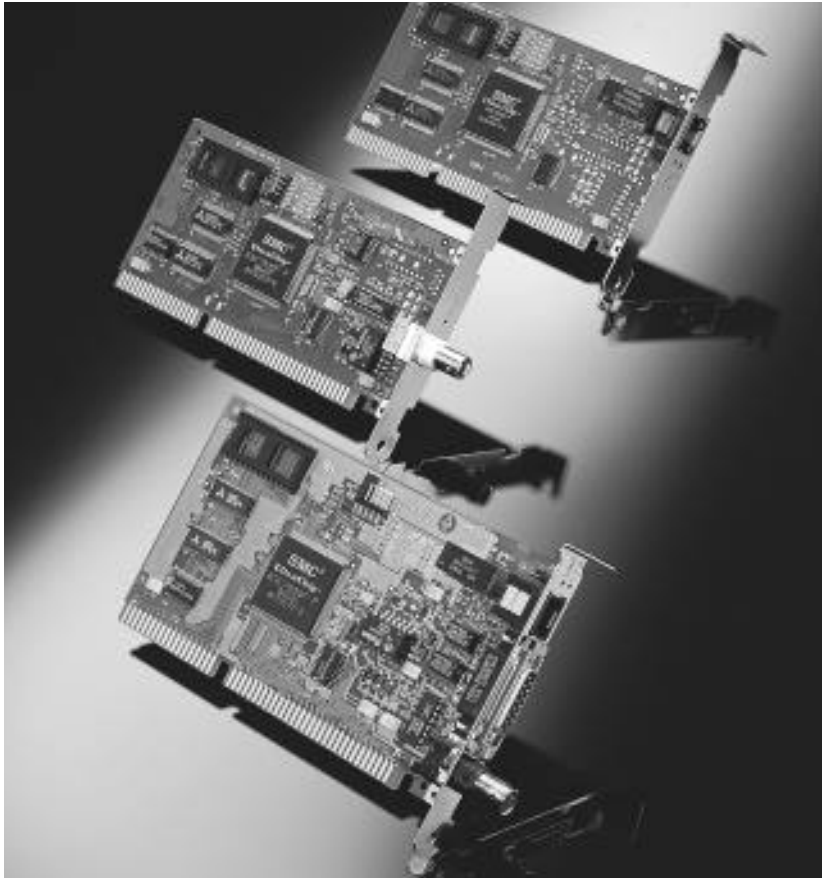




# EtherCard Elite16 Ultra

## ISA Ethernet Adapters

### 10BASE-T, Thin Coax and Combo Models



#### Get the Ultra Advantage

SMC's 16-bit EtherCard Elite Ultra™ adapters are based on our UltraChip™ single-chip solution for outstanding performance, unsurpassed reliability and exceptional value. According to LANQuest Labs, they outperform all competition.\*

Ultra adapters feature SimulTasking™, a technique that uses pipelined data transfers for a dramatic increase in performance. Rather than transferring each packet fully into the adapter's buffer before forwarding it either to the PC or the cable, the forwarding of a packet begins before it has been fully received. This process of overlapping packet transfers significantly improves the data transfer rate.

Ultra adapter configuration, diagnostics and driver installation are a snap with our EZStart™ utility. What's more, our Ultra adapters are backed by a lifetime warranty. With SMC's EtherCard Elite Ultra adapters, you get the Ultra Advantage!

These adapters come in three models: 10BASE-T, thin coax and combo. For economy, the 10BASE-T adapter has a single RJ-45 connector and the thin coax adapter has a single BNC connector. For versatility in attaching to twisted-pair, thin or thick coax wiring, the combo adapter features three connectors: RJ-45, BNC and AUI.



\*Call SMC for a free copy of the LANQuest Labs Report.

#### Features/Benefits

##### Outstanding Performance:

- ◆ SMC's unique SimulTasking pipelined data transfer technique for top performance
- ◆ Large dual-ported RAM for fast data buffering
- ◆ Zero wait state memory transfers for maximum performance and lower CPU utilization

##### Easy to Install and Use:

- ◆ Auto-configurable
- ◆ EZStart utility simplifies driver installation
- ◆ Four preassigned hardware settings eliminate need to configure adapter via software
- ◆ Automatic signal polarity detection and correction of reversed twisted-pair wires
- ◆ Diagnostic LEDs easily visible on bracket
- ◆ On-board socket for optional auto-boot ROM

##### Compatible:

- ◆ IEEE 802.3 and ISO/IEC 8802-3 standards

##### Desktop Management:

- ◆ SMC's PC Agent/SNMP for desktop management from any SNMP-based Manager

##### Versatile:

- ◆ Combo model has RJ-45, BNC and AUI connectors for use in any Ethernet environment

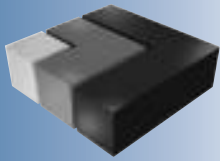
##### Reliable:

- ◆ Lifetime warranty
- ◆ Mean Time Between Failure (MTBF) in excess of 400 years
- ◆ FCC Class B certified

#### Support for Popular Network Operating Systems

- ◆ Novell NetWare: DOS ODI and OS/2 ODI Workstation, 286 and 386 (3.x/4.x) Server
- ◆ Microsoft: Windows for Workgroups, Windows NT and LAN Manager
- ◆ Banyan VINES
- ◆ IBM LAN Server
- ◆ DEC Pathworks
- ◆ Artisoft LANtastic
- ◆ UNIX: SCO, ISC, UNIXWare, SunSoft Solaris, NeXTSTEP
- ◆ NDIS: DOS and OS/2
- ◆ Packet Driver
- ◆ Plus many other drivers available on SMC's Bulletin Board





**SMC** UNITY

Adapters  
Workgroup Hubs  
Workgroup Switches

SMC Offices Worldwide

For more information,  
call or fax:

◆ SMC—Headquarters  
Hauppauge, NY  
Phones: (800) SMC-4-YOU  
(516) 435-6255

Fax: (516) 273-1803

◆ SMC—Canada  
Oakville, Ontario, CANADA  
Phone: (800) SMC-4-YOU

◆ SMC—France

St. Germain-En-Laye,  
FRANCE

Phone: 33 (1) 30.87.42.42

Fax: 33 (1) 30.61.41.34

◆ SMC GmbH—  
Central Europe  
München, GERMANY  
Phone: 49 (89) 928806-0  
Fax: 49 (89) 928806-30

◆ SMC GmbH—Eastern  
Europe/Middle East  
München, GERMANY  
Phone: 49 (89) 928791-0  
Fax: 49 (89) 9101934

◆ SMC—Australia  
Sydney, AUSTRALIA  
Phone: 61.2.238.2206  
Fax: 61.2.238.2220

◆ SMC—Asia  
SINGAPORE  
Phone: 65-320-8391  
Fax: 65-320-8359

◆ SMC—(Europe) Limited  
West Byfleet, Surrey  
ENGLAND

Phone: 44 (0) 932 350111  
Fax: 44 (0) 932 350699

◆ SMC—Latin America  
Miami, FLORIDA  
Phone: (305) 264-7657  
Fax: (305) 264-8321

◆ TMC—Japan  
Tokyo, JAPAN  
Phone: 81 (3) 57212271  
Fax: 81 (3) 57212270

◆ SMC's Fax-on-Demand  
System—EliteFax™  
(800) SMC-8329 from  
U.S.A. and Canada  
(516) 435-6107 Elsewhere

**SMC**  
STANDARD  
MICROSYSTEMS  
CORPORATION

# EtherCard Elite16 Ultra

## ISA Ethernet Adapters

### 10BASE-T, Thin Coax and Combo Models

#### Specifications

##### Adapter Types

8216T (RJ-45 connector)  
8216 (BNC connector)  
8216C (RJ-45, BNC, AUI connectors)

##### Network Interface

RJ-45 (UTP Cable; EIA/TIA Categories 3, 4, 5)  
BNC (Coax Cable, RG-58A/U or RG-58C/U)  
AUI (External Transceiver Drop)

##### Weight

8216T (3.0 oz./85.1 gm)  
8216 (3.5 oz./99.2 gm)  
8216C (3.6 oz./102.1 gm)

##### Size (without bracket)

8216T, 8216  
6.245 in. x 3.08 in. (15.9 cm x 7.8 cm)  
8216C  
6.245 in. x 3.695 in. (15.9 cm x 9.4 cm)

##### Diagnostic LEDs

8216T, 8216C  
Network Activity  
Link Integrity  
8216  
Network Activity

##### Bus Interface

16-bit AT  
32-bit EISA  
8-bit XT

##### Interface to PC

Memory mapped

##### DMA Channel

None

##### I/O Base Addresses

200, 220, 240, 260, 280, 2A0, 2C0, 2E0,  
300, 320, 340, 360, 380

##### Interrupt Channels

2/9, 3, 5, 7, 10, 11, 15

##### RAM

Buffer Size  
16 KB  
Base Addresses  
C000, C200, C400, C600, C800, CA00,  
CC00, CE00, D000, D200, D400, D600,  
D800, DA00, DC00, DE00, E000, E200,  
E400, E600, E800, EA00, EC00  
Speed  
35 ns, 0 wait states enabled or disabled

##### Optional Boot ROM

Window Size  
16 KB  
Base Addresses  
C000, C200, C400, C600, C800, CA00,  
CC00, CE00, D000, D200, D400, D600,  
D800, DA00, DC00, DE00, E000, E200,  
E400, E600, E800, EA00, EC00, EE00

##### Protocols

Native NetWare Core  
LAN Manager  
IBM LAN Server

##### Type

27512 (200 ns access time)

##### Temperature

Operating  
32° to 131° F (0° to 55° C)  
Storage  
-4° to 158° F (-20° to 70° C)

##### Humidity

Operating  
10% to 90%  
Storage  
5% to 95%

##### Operating Voltage

+12 VDC ± 10% @ 47 mA (typical),  
55 mA (maximum)  
10BASE-T mode  
+5 VDC ± 5% @ 320 mA (typical),  
457 mA (maximum)  
10BASE2 mode  
+5 VDC ± 5% @ 610 mA (typical),  
870 mA (maximum)  
External Transceiver  
+12 VDC ± 10% @ 500 mA (maximum)

##### Ethernet Standards

IEEE 802.3  
ISO/IEC 8802-3

##### Compliances

Safety  
UL 1950  
EN60950 (TÜV)  
CSA 22.2 No. 950 (UL)  
Emissions  
FCC Class B  
CDOC Class B  
BMPT Vfg 243/1991

##### Warranty

Lifetime

Product*	Order Number	Description
EtherCard Elite16T Ultra™	SMC-E16T	10BASE-T Adapter
EtherCard Elite16 Ultra™	SMC-E16	Thin Coax Adapter
EtherCard Elite16C Ultra™	SMC-E16C	Combo Adapter
Accessory	SMC-UROM	Optional Boot ROM

\* All adapters also available in 6-, 24- and 50-packs. 10BASE-T and coax adapters with AUI connector also available in 6-packs.

SMC and Standard Microsystems are registered trademarks; and EtherCard Elite Ultra, EtherCard Elite16 Ultra, EtherCard Elite16C Ultra, EtherCard Elite16T Ultra, EZStart, EliteFax, SimulTasking and UltraChip are trademarks of Standard Microsystems Corporation. Other product and company names are trademarks or registered trademarks of their respective holders.

© Copyright 1994 Standard Microsystems Corporation

12/94 — ETH-8216