

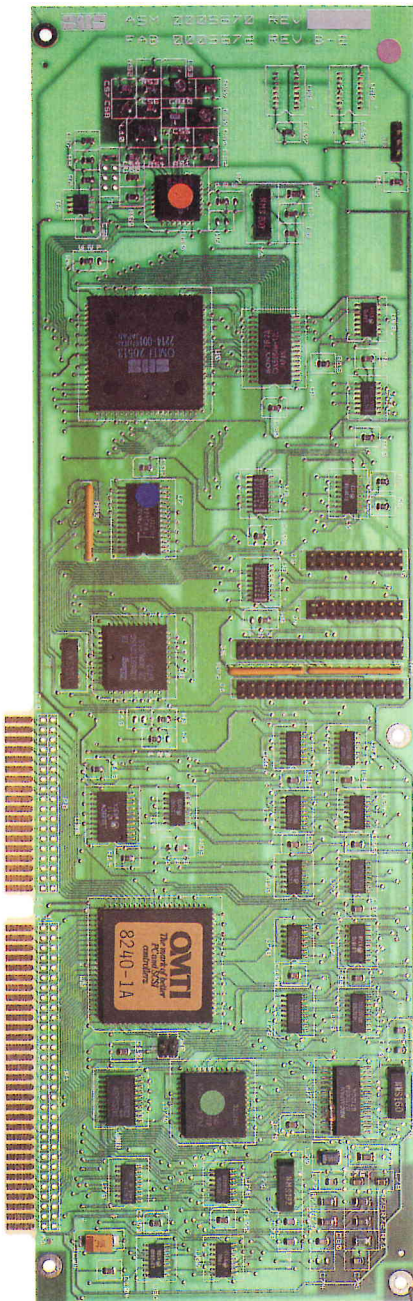
OMTI

STORAGE CONTROLLERS FOR THE AT BUS

AT

Scientific
Micro
Systems

8240 + 8247 AT COMPATIBLE CONTROLLERS



The 8240/47 (this page) and the 8620/27 cards (see opposite page) are all full-slot boards, with floppy disk support.

SIZE - 337 x 99mm
CURRENT - 1.0 Amp maximum
VOLTAGE - +4.75 — 5.25 VDC
MAX RIPPLE AND NOISE - 100mVolts
TEMPERATURE - 0 — 50 degrees Celsius
RELATIVE HUMIDITY - 10% — 95%
MAX WET BULB - 30 degrees Celsius non-condensing
ALTITUDE - 0 — 10,000 feet (Operational), 0 — 15,000 feet (Storage)

THE OMTI 8240 and 8247 are combined winchester and floppy disk controllers for the IBM AT and compatible computers (16 bit data path).

The 8240 and 8247 are both 'Plug and play' compatible with existing AT controllers, but with many added features, including higher performance rates and improved error checking for increased data reliability.

Minimum research and development time is required to integrate these products, and enjoy the benefits of their reliable, cost-effective design.

'PLUG AND PLAY' AT COMPATIBILITY

HIGH PERFORMANCE
(1:1 INTERLEAVE)

FULLY COMPATIBLE WITH NOVELL (v2.1)
and XENIX OPERATING SYSTEMS

IMPROVED DATA INTEGRITY
WITH 32 BIT ERROR CORRECTION CODE
ON MFM DRIVES

2.7 RLL INCREASES DISK CAPACITY BY
50% — AND IMPROVES PERFORMANCE

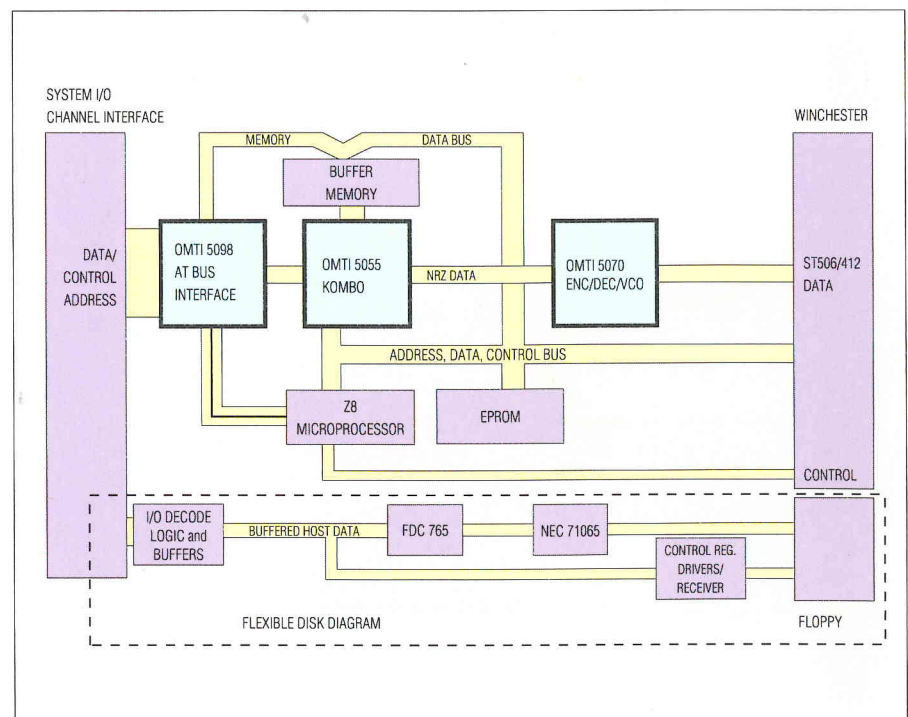
FEATURES

WINCHESTER DISKS

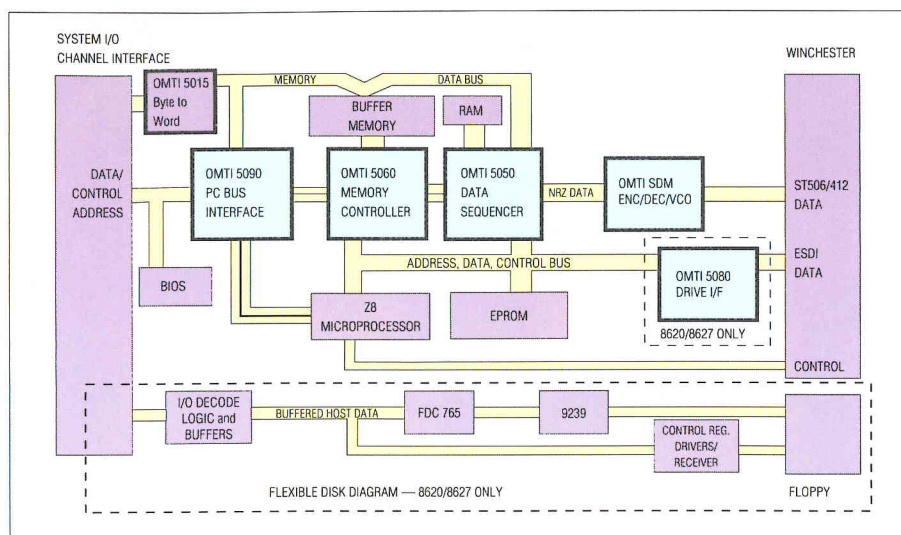
- ☐ Operates one or two ST412/506 compatible winchester disks.
- ☐ MFM encoded drives transfer data at 5 Mbit per second.
- ☐ RLL encoded drives transfer data at 7.5 Mbit per second.
- ☐ Supports 128, 256, 512 and 1024 bytes per sector.
- ☐ Concurrent data operations on winchester and floppy disks.
- ☐ Supports programmable sector interleave.
- ☐ Addresses up to 2048 tracks and 16 heads.
- ☐ 16 bit transfer width on AT bus.
- ☐ 2 KByte buffer minimum.

FLOPPY DISKS

- ☐ Operates one or two floppy drives (including 1.2 Mb).
- ☐ Supports 48 and 96 TPI drives plus the high density AT compatible drives.
- ☐ Supports 250, 300 or 500K bits per second transfer rate, including dual rotational speed floppies.
- ☐ Host has direct access to floppy disk controller chip.



HIGH PERFORMANCE AT CONTROLLERS



FEATURES

WINCHESTER DISKS

- ☐ Operates one or two ST506/412R compatible or ESDI Winchester disks.
- ☐ Supports 256 (ESDI only), 512, 1024 or 1056 bytes per sector.
- ☐ Supports programmable sector interleave including 1:1 interleave.
- ☐ Addresses up to 2048 tracks and 16 heads.
- ☐ Supports overlapped seek.
- ☐ Word width data transfer on AT bus (16 bits).
- ☐ Supports both programmed I/O and DMA data transfers.

FLOPPY DISKS

- ☐ Operates one or two floppy disk drives.
- ☐ Supports 48 and 96 TPI plus high density AT compatible drives.
- ☐ Supports 250, 300, or 500 Kbits per second transfer rate, including dual rotational speed floppies.
- ☐ Host has direct access to floppy disk controller chip.

- SUPPORT FOR ESDI and ST412R COMPATIBLE WINCHESTER DISK DRIVES
- MFM OR 2,7 RLL ENCODING
- HIGH PERFORMANCE (1:1 INTERLEAVE)
- 8 or 16 KBYTE BUFFER MINIMUM
- 48 BIT ECC ON ESDI and 2,7 RLL ENCODED DRIVES
- 32 BIT ECC ON MFM ENCODED DRIVES
- SUPPORTS BOTH PROGRAMMED I/O AND DMA DATA TRANSFERS

- CONCURRENT DATA OPERATIONS ON BOTH FLOPPY AND WINCHESTER DRIVES WITH 8620 and 8627

- SPECIAL BIOS SERVICE AVAILABLE FOR OEMs

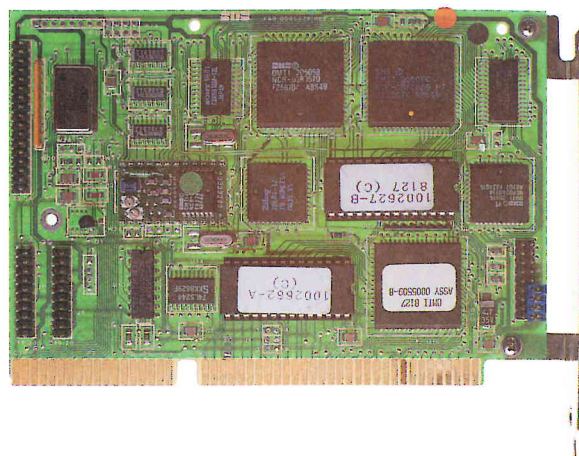
THE OMTI 8600 SERIES comprises winchester/floppy disk controllers for the IBM AT and bus compatible computers. Designed to support high performance, high capacity ESDI winchester disks — and do them justice — the 8600 series offers many advanced features, including ultra-fast transfer rates and SCO ESDI XENIX support.

The on-board BIOS of the 8600 series enhances winchester disk performance using an extended MS DOS command set, whilst retaining full compatibility with the IBM AT BIOS on the floppy portion.

As with all OMTI controllers, the 8600 series is designed making full use of our proprietary surface mounted VLSI technology for maximum reliability and cost-effectiveness.

The 8100 series controllers are half-slot sized and share the same high performance advanced features, but without ESDI or floppy disk support.

MODEL	8620	8627	8120	8127
Number of Drives	2W + 2F	2W + 2F	2W	2W
ST412 Recording	MFM	2,7 RLL	MFM	2,7 RLL
Transfer Rate (Mbit per Sec)	5 Mbit	7.5 Mbit	5 Mbit	7.5 Mbit
ESDI Drives	Yes	Yes	No	No
Transfer Rate (Mbit per Sec)	10 Mbit	10 Mbit	-	-
Flexible Disks	Yes	Yes	No	No



The 8120 and 8127 offer the performance of the 8600 range on a short slot card, but without ESDI or floppy drive support.

- SIZE - 8620 + 8627: 330 x 102mm 8120 + 8127: 146 x 103mm
- CURRENT - 8620 + 8627: 1.0 Amp max 8120 + 8127: 0.7 Amp max
- VOLTAGE - +4.75 — 5.25 VDC
- MAX RIPPLE AND NOISE - 100mVolts
- TEMPERATURE - 0 — 50 degrees Celsius
- RELATIVE HUMIDITY - 10% — 95%
- MAX WET BULB - 30 degrees Celsius non-condensing
- ALTITUDE - 0 — 10,000 feet (Operational), 0 — 15,000 feet (Storage)

THE LINE CARD

PRODUCT	WINCHESTER ST506/412 ESDI	ENCODING	FLOPPIES	TAPE	DIMENSIONS mm
XT BUS					
5520	2	MFM			126 x 102
5527	2	RLL			126 x 102
6510	2	MFM			105 x 140
SCSI HOST ADAPTOR					
510/512					127 x 160
AT BUS					
8240	2	MFM	2		337 x 99
8247	2	RLL	2		337 x 99
8120	2	MFM			146 x 102
8127	2	RLL			146 x 102
8620	2 or 2	MFM	2		330 x 102
8627	2 or 2	RLL	2		330 x 102
SCSI BUS - COMMON COMMAND SET					
7100	2 or 2	MFM			146 x 203
7200	2 or 2	MFM	4		146 x 203
7400	2 or 2	MFM	4	QIC-02	146 x 203
3520	2	MFM			146 x 102
3527	2	RLL			146 x 102
SCSI BUS - OMTI COMMAND SET					
3100	2	MFM			146 x 102
3127	2	RLL			146 x 102
5100	2	MFM			146 x 203
5200	2	MFM	2		146 x 203
5400	2	MFM	2	QIC-02	146 x 203
SCSI BUS - OPTICAL STORAGE					
7902	2				146 x 203

OMTI also has powerful application specific ICs and custom design of BIOS for OEM applications

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A division of Scientific Micro Systems
Langley Business Centre, 11 - 49 Station Road
Langley, Slough, Berkshire, SL3 8YL
Telephone (0753) 49553

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ambar
systems ltd

Rabans Close
Aylesbury
Bucks, HP19 3RS
Tel 0296 435511
Telex 837427
Fax 0296 29670