

APPENDIX IV

MERLAN PRESENTATION

MerLAN

Enabling Technology

- Allow rapid development of new lowered sensors
- Simple configuration
- Simple programming
- Built from off the shelf components
- Operates at full duplex ETHERNET transmission speed (10 mbit/sec)
- Seperates power transmission and signal transmission

PC/104 Standard

- Adaption of regular PC bus (IEEE P996)
- Compact Form-Factor
 - Size reduces to 3.6 by 3.8 inches
- Self-stacking
 - Can eliminate cost and bulk of backplanes and card cages
 - Pin-and Socket connectors
- Relaxed bus drive (4 mA.)
 - Lowers power consumption (1-2 watts per module) and minimizes component count

The PC 104 Standard

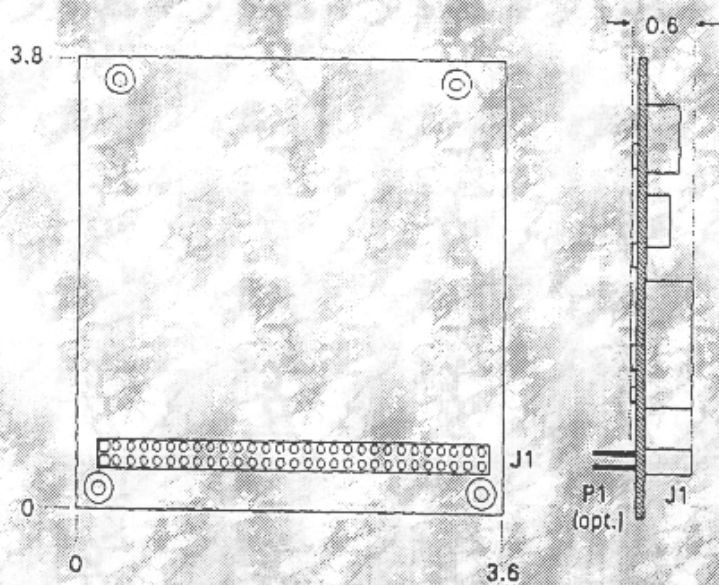


Figure 1. Basic Mechanical Dimensions (8-bit Version)

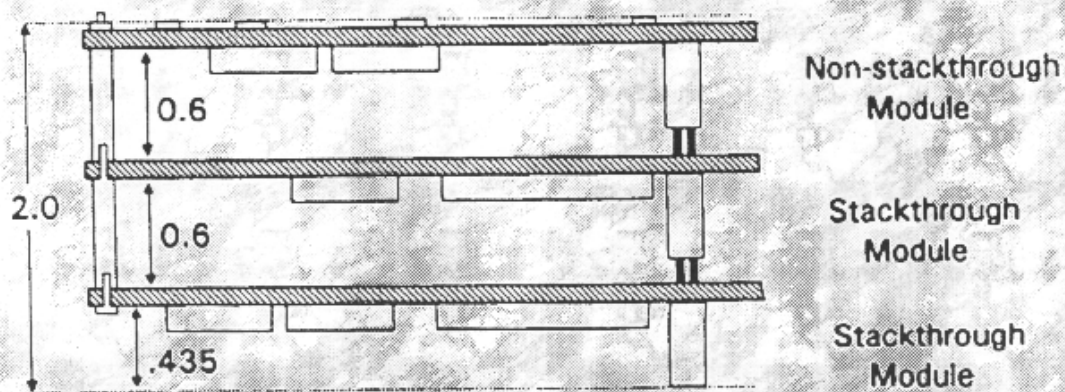


Figure 2. Standalone Module Stacks

Two Different Types of PC/104 Boards

■ PC/104 Form-Factor

- Fits dimensional 3.8" x 3.6" criteria

■ PC/104 Expandable

- Allows PC/104 Form-Factor boards to be plugged into it

Typical PC/104 Boards Available

■ CPU's

- 386
- 486
- 586 (expandable only)

■ Network Interfaces

■ Modems

■ Motor Controllers

■ PCMCIA

■ Serial Port Expansion

■ A/Ds

- 12 bit 16 channel
- 16 bit 16 channel
- 22 bit single channel

■ Counter/Timers

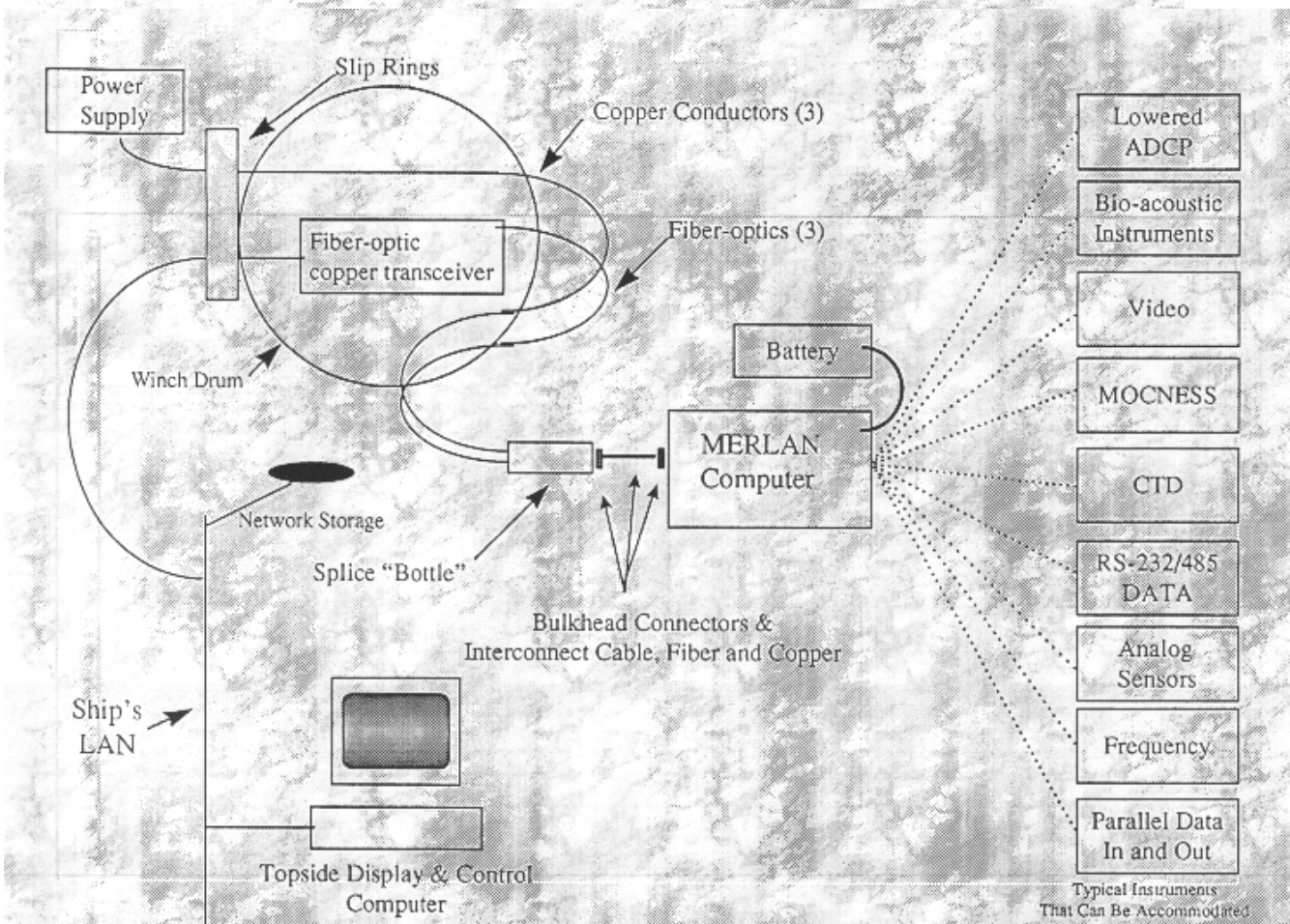
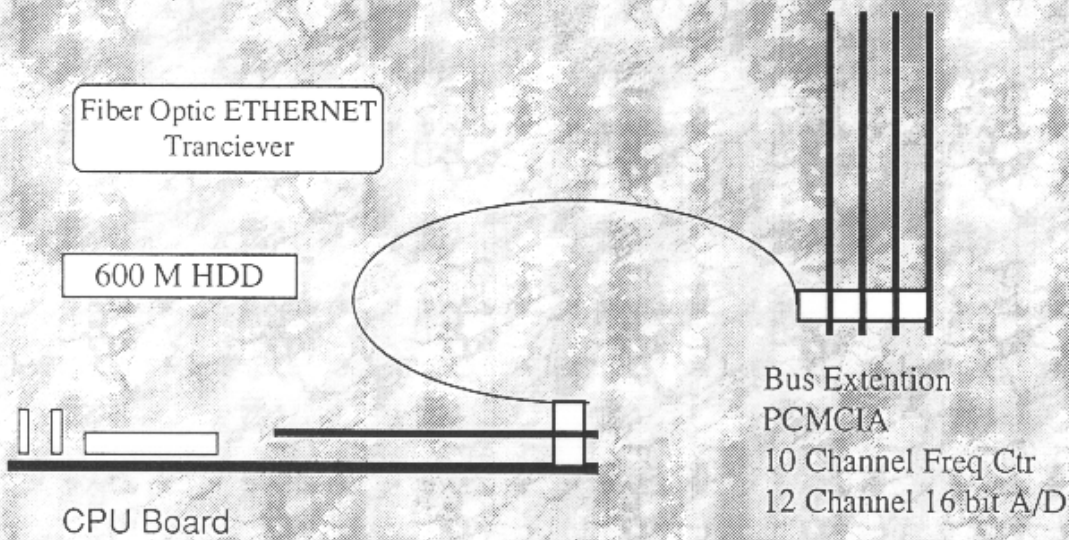
■ Digital Signal Processing

■ Video Capture

■ Syncro/Resolver

■ Speech & Sound Modules

MerLAN Architecture



Operating System Software

- Windows 95*
 - Remotly controlled by PC Anywhere
- Windows NT
 - Remotly controlled by PC Anywhere or X-
Windows
- UNIX
 - Remotely controlled by X-
Windows

Acquisition Software

- LabTech CONTROL*
- LabView
- Control Point