1.3 Card Overview

The 5136-PFB-VME card can:

- act as a DP slave
- act as a DP master
- send and receive FDL (layer 2) messages

The card supports simultaneous operation in all these modes.

The card supports the standard ProfiBus baud rates of 9.6K, 19.2K, 93.75K, 187.5K, 500K, 750K, 1.5M, 3M, 6M and 12M baud.

The card has an onboard Intel i960 processor with 512 Kbytes of local RAM., that handles the communication protocol and data formatting into the shared RAM.

The 5136-PFB-VME consists of:

a VMEbus interface, with capabilities as outlined in the *Specifications* section of this manual

five registers in VME short address space for control of the card

The card has an additional 256 Kbytes of RAM which is shared with the host as either a single block of 256 Kbytes (linear addressing mode) or as one of sixteen, 16 Kbyte pages (paged mode). In paged mode, the host determines which page of this shared RAM is mapped into the host memory by writing to a register on the card. This block of memory contains all the tables and buffers that are used to pass information between the interface card and the application software running in the host computer. This approach ensures a fast and simple connection between the host computer and the card software.

In addition, the card has 512 Kbytes of sectored flash memory, for storage of programs and configuration data. ProfiBus configuration information may also be stored in flash.

1.4 Reference Documents

For information on ProfiBus, refer to one of the following:

- ProfiBus standard DIN 19 245 parts 1, 2 and 3. Part 1 describes the low level protocol and electrical characteristics, part 2 describes FMS, part 3 describes DP
- European standard EN 50170
- ET 200 Distributed I/O System Manual, 6ES5 998-3ES22

Refer to the *IEEE Standard for a Versitile Backplane Bus: VMEbus, ANSI/ IEEE Std. 1014-1987* for explanations of VMEbus Terminology.