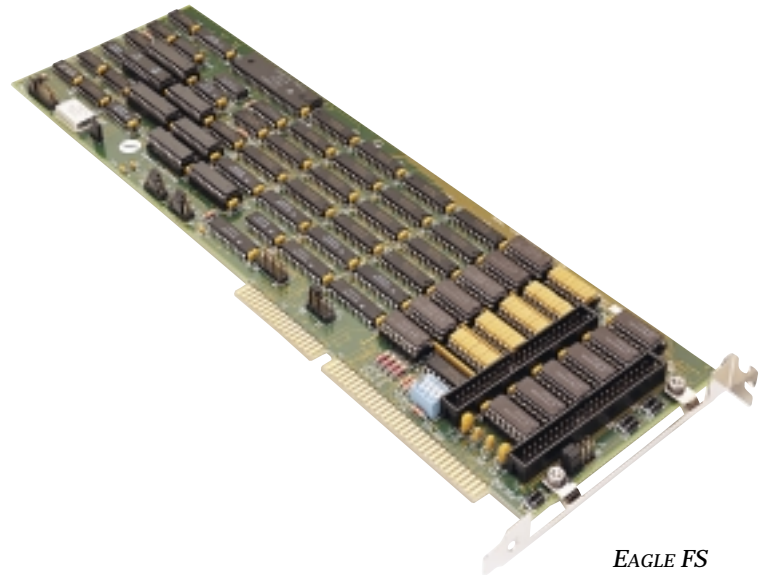# Eagle parallel

Description

The EAGLE family of parallel NTDS boards from Sabtech are 32-bit full-duplex interfaces between MIL-STD-1397C Type A, B, C, or H parallel I/O channels and the PC (ISA) bus. EAGLE boards occupy a single ISA slot making it easy to install multiple boards in a system. They can also be used in EISA systems such as the U.S. Navy's TAC-3/4.

A uniform programming interface provides software compatibility across the entire EAGLE family of NTDS boards. MS DOS® and Windows NT® device drivers make it easy to program the EAGLE boards. Each board is also supplied with comprehensive diagnostic software, detailed documentation, and programming examples written in C to simplify development and save time. EAGLE boards are versatile and allow you to optimize their performance by operating in DMA, polled, or interrupt modes. EAGLE boards also feature short-circuit protected NTDS drivers which prevent failures if cables are connected incorrectly.

EAGLE boards can be installed in desktop, portable, or rugged PC systems to meet a wide variety of demanding requirements in the lab or aboard ship such as testing, emulation, training, simulation, data collection, or tactical operations. Wherever the need exists to interface to NTDS equipment, the EAGLE is the ideal COTS choice for building powerful yet affordable NTDS systems.

EAGLE FS

Eagle HS Parallel NTDS board with optional 85-pin AN/UYK-7 Adapter Module.

Eagle FS

The full-size EAGLE FS performs NTDS transfers using independent input and output data paths, each with its own 32-bit FIFO. Switches and jumpers on the board select base address, DMA channels, IRQ, and either NTDS Type A or B operation. It also includes an RS-422 serial port that can be selectively enabled.

Eagle HS

The half-size EAGLE HS is ideal for use in portable computers or in any system where space is limited. Removal of the RS-422 port and the use of a high-density connector on the rear plate make the reduced size possible. An optional adapter is available to make it fully compatible with EAGLE FS cables. Otherwise, it is identical to the full-size EAGLE FS.

Eagle II

The EAGLE II has independent input and output data paths, each with its own 4 Kbyte FIFO, giving it the ability to buffer 1024 32-bit words in each direction. All configuration settings on the EAGLE II are selectable by software with the exception of base address and NTDS voltage. The EAGLE II supports NTDS Types B, C, and H. It also has differential NTDS receivers for improved noise immunity. Autotransfer is an advanced feature of the EAGLE II, enabling it to automatically echo NTDS input words directly to the NTDS output. This feature makes it easy to implement an active tap where the input is connected to one device and the output is connected to another. The EAGLE II can receive NTDS words, process or store them, and retransmit them using autotransfer.

Eagle II+

The EAGLE II+ is identical to the EAGLE II but with increased memory. Dual 8 Kbyte FIFOs give it an onboard buffer size of 2048 32-bit words in each direction.

Features

A complete description of the EAGLE family includes all the features and capabilities described in the PC NTDS FAMILY SECTION of this catalog, as well as those listed below:
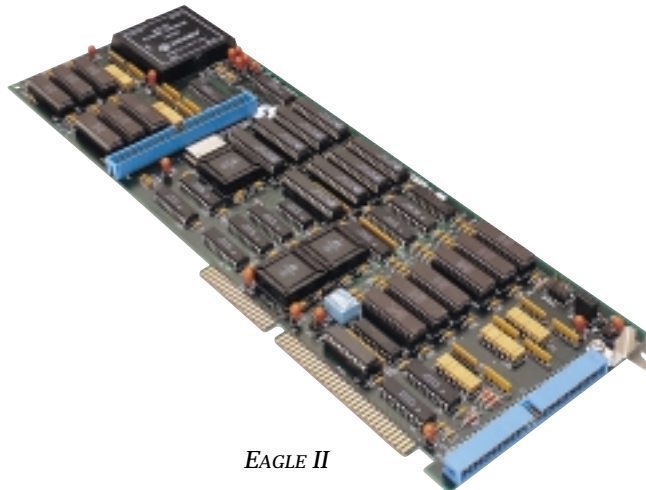
- MIL-STD-1397C Type A, B, C, or H compatible
- Full-duplex 8, 16, or 32 bit NTDS transfers
- Software-selectable for Computer, Intercomputer, or Peripheral modes)
- 32 switch-selectable I/O base addresses
- Selectable NTDS timing
- Selectable DMA channels and IRQ levels
- Supports multiple forced EFs and EIs
- Differential NTDS receivers (EAGLE II & II+)
- Separate input and output FIFO buffers
- Dual 1024 NTDS word FIFO (EAGLE II)
- Dual 2048 NTDS word FIFO (EAGLE II+)

- Short-circuit protected NTDS Drivers
- Operates in DMA, polled, or interrupt modes
- Multiple EAGLEs and Navigator IIs may be used in a single PC system
- Requires a single ISA slot
- Full-length and half-length board sizes available
- RS-422 port on the EAGLE FS
- Autotransfer capability (EAGLE II & II+)
- Active and passive tap capability
- Supplied with MS-DOS® or optional Windows NT® device driver, test program, and sample interface programs

MS-DOS and Windows NT are registered trademarks of Microsoft Corp.

Specifications & Ordering Information

	Eagle FS	Eagle HS	Eagle II	Eagle II+
NTDS Interface:	MIL-STD-1397C Type A or B	MIL-STD-1397C Type A or B	MIL-STD-1397C Type B,C or H	MIL-STD-1397C Type B,C or H
PC Interface:	Single ISA slot	Single ISA slot	Single ISA slot	Single ISA slot
NTDS I/O Connectors:	Two 50 pin box headers	One 100 pin high density	Two 60 pin box headers	Two 60 pin box headers
Form Factor:	13.25 x 4.7 (33.6 x 10.6 cm)	6.5 x 4.19 (16.5 x 10.6 cm)	13.25 x 4.7 (33.6 x 10.6 cm)	13.25 x 4.7 (33.6 x 10.6 cm)
Weight:	310 g (11 oz)	162 g (5.7 oz)	374 g (13. 2 oz)	374 g (13. 2 oz)
Power Consumption:	+5Vdc @ 1.3 A	+5Vdc @ 1.3 A	+5Vdc @ 3.0 A	+5Vdc @ 3.0 A
(Typical)	-5Vdc @ 71 mA	-5Vdc @ 71 mA	-5Vdc @ 0 A	-5Vdc @ 0 A
	-12Vdc @ 84 mA	-12Vdc @ 84 mA	-12Vdc @ 0 A	-12Vdc @ 0 A
Operating Temperature:	0° C to +55° C	0° C to +55° C	0° C to +55° C	0° C to +55° C
Relative Humidity:	0% to 90% *(Noncondensing)*	0% to 90% *(Noncondensing)*	0% to 90% *(Noncondensing)*	0% to 90% *(Noncondensing)*
Part Number:	**EA-01102-00**	**EA-01103-00**	**EA-02101-00**	**EA-02102-00**

Specifications subject to change without notice

EAGLE II