Protocol Document

Common EPD CPU/NUBUS Electronics Platform DEFINITION

ELECTRONIC PHOTOGRAPHY DIVISION

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PRELIMINARY RELEASE

May 4, 1988

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Approvals

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Protocol Document

Common CPU/NUBUS Electronic Platform

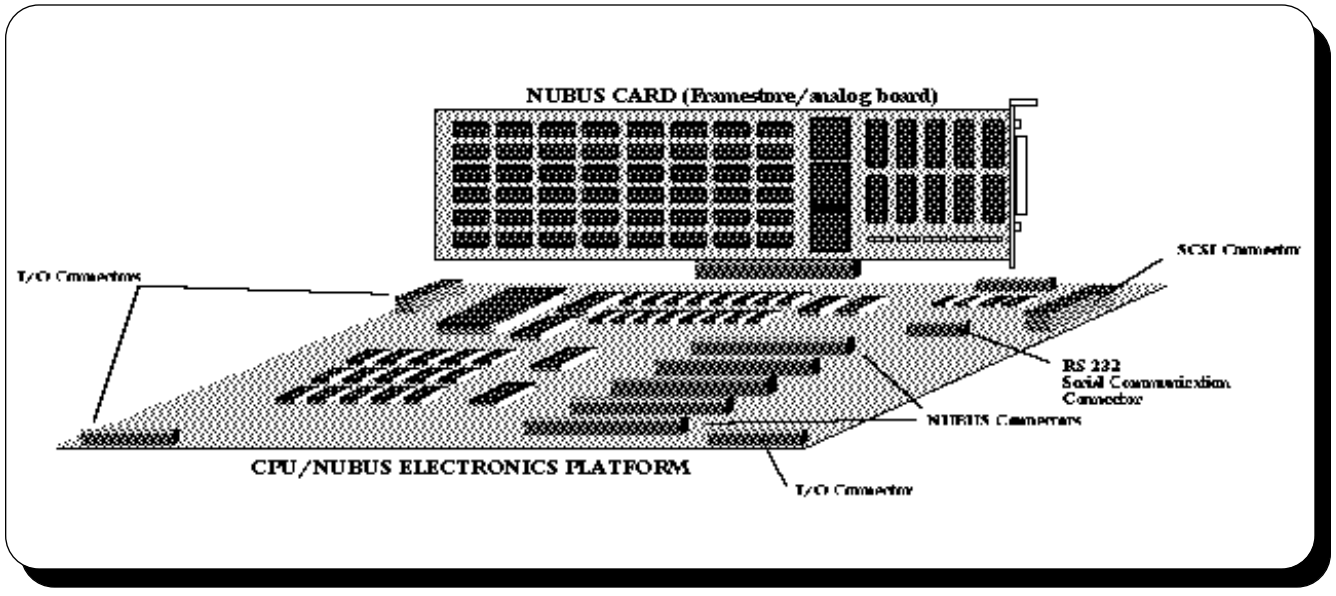
PURPOSE & SCOPE:

This protocol document establishes agreement on the basic CPU / NUBUS electronic platform philosophy and authorizes development of:

1. A common CPU / NUBUS electronics platform.
2. A common EPD framestore / analog board (NTSC or PAL) to be used in the common CPU / NUBUS electronics platform.

The specific products which use the building blocks described above will be defined in separate protocol documents.

ELECTRONICS PLATFORM APPROACH:



Protocol Document

Common CPU/NUBUS Electronics Platform

The common EPD CPU / NUBUS electronics platform provides feature flexibility and the ability to respond quickly to the needs of a newly emerging market. This common platform is a CPU / NUBUS mother board based on a Motorola 68000 16-bit microprocessor. It also features multiple I / O connectors to provide flexibility to meet the design requirements of the various Gen. 2 products. The motherboard also provides or can be configured to provide the following:

1. RS-232C serial communication port

2. SCSI parallel port

3. 64K words of RAM, 256K words of ROM and 4K bytes of EEPROM

4. DMA Controller to provide high throughput of images over the bus

5. From 1 to 15 NUBUS slots to accept: (typically 3 to 6 will be used)

    a. an analog interface board
    (either the common EPD framestore / analog board or an off the shelf card).
    b. a digital interface board (IEEE 488, Centronics, etc.).
    c. RAM memory board (image buffer).
    d. digital signal processing board(s), such as the EPD TransBIT™
    image compander board.
    e. telephone communication board(s).
    f. and / or special purpose boards.

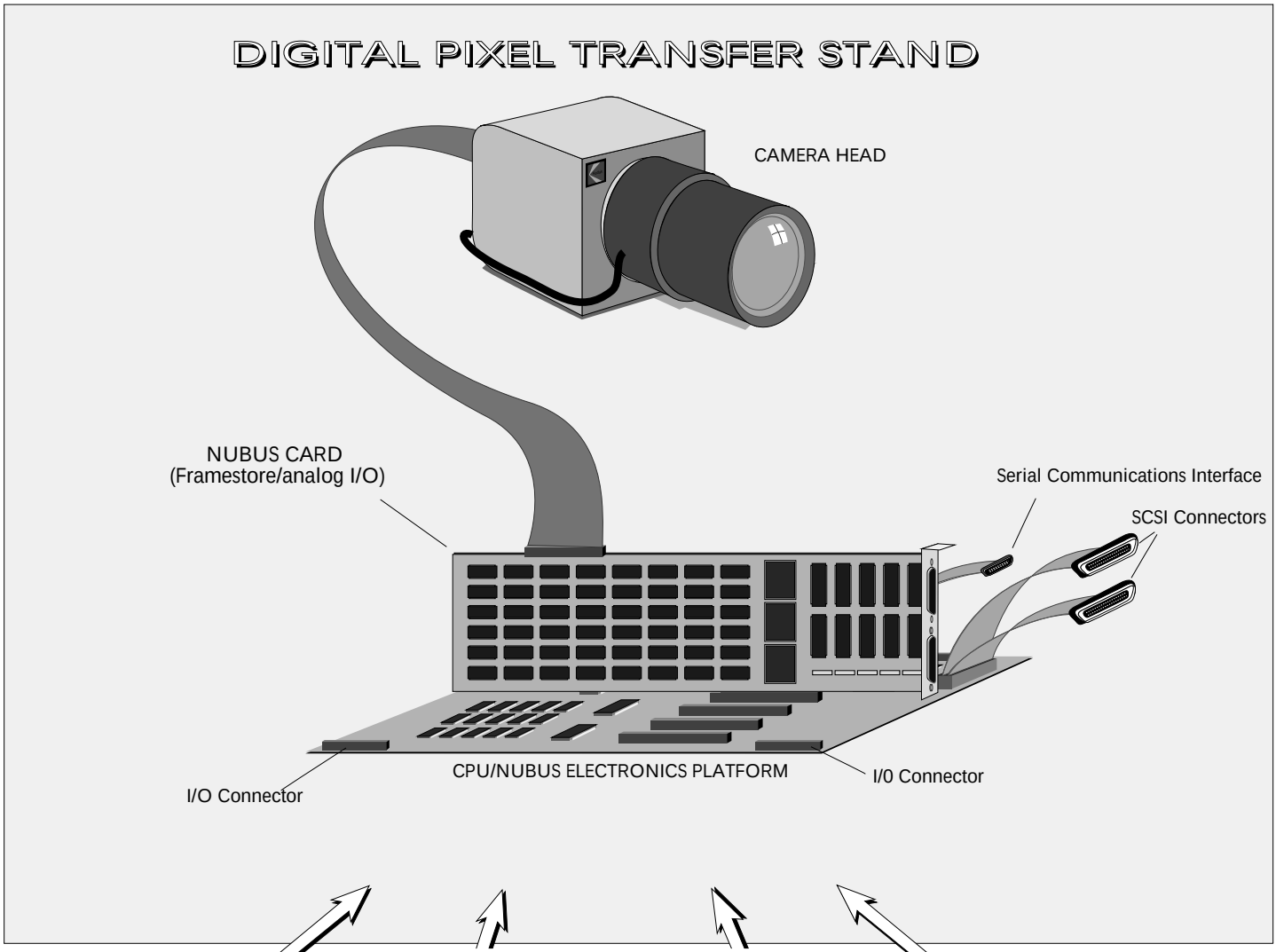
The product offerings which could use such an approach would be:

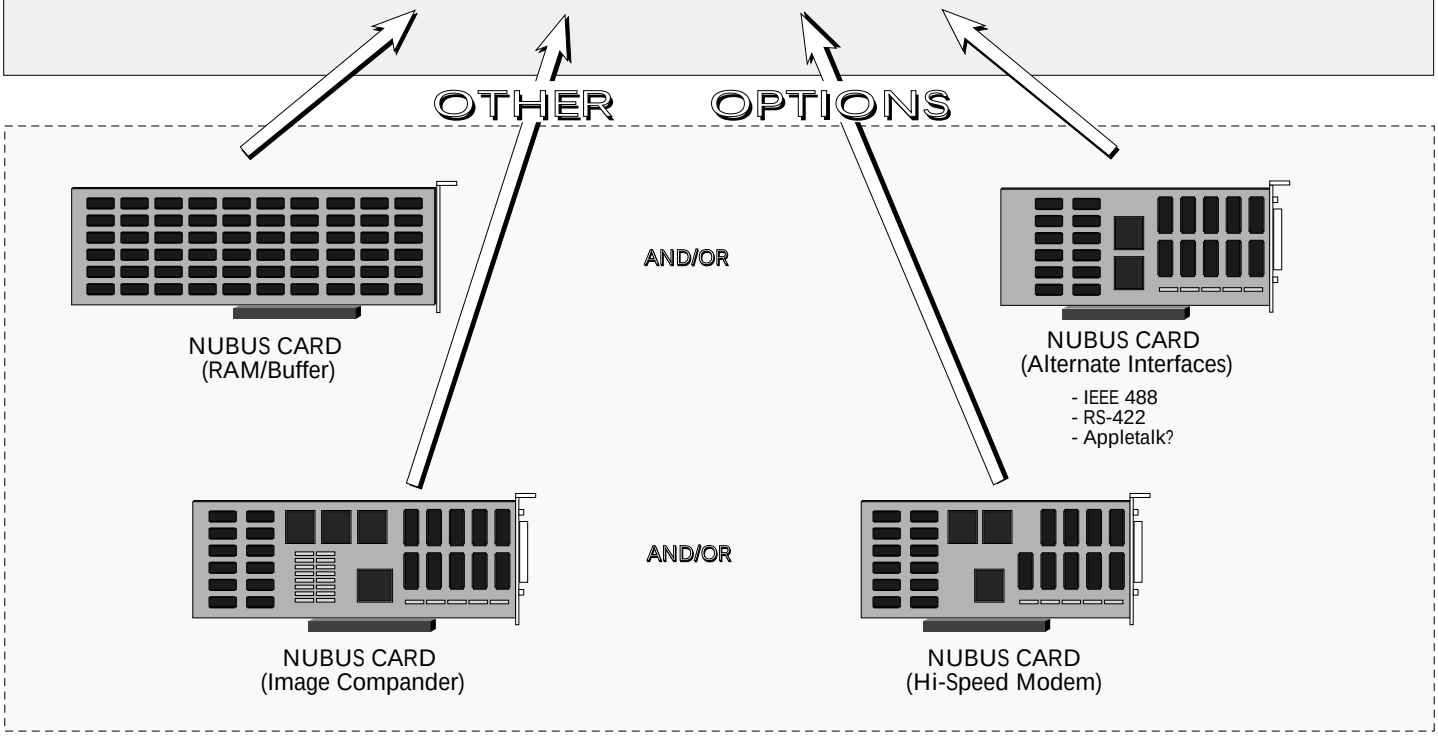
1. Printers
2. Transceivers
3. Film Transfer Devices
4. Digital Storage Devices

An illustration of each of these follows.

COMMON ELECTRICAL INTERFACE FOR EPD PRODUCTS

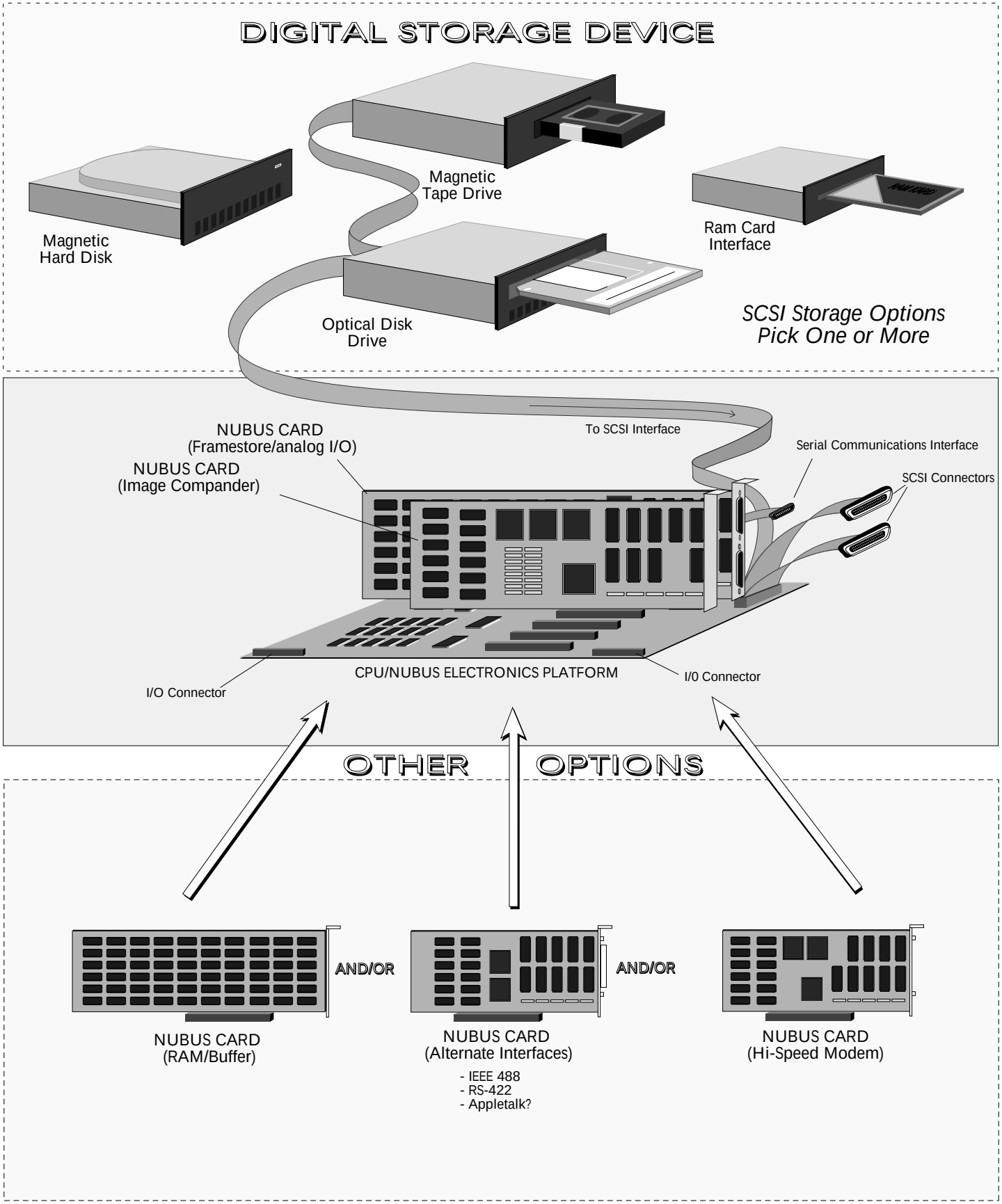
P J Sucy 4/22/88





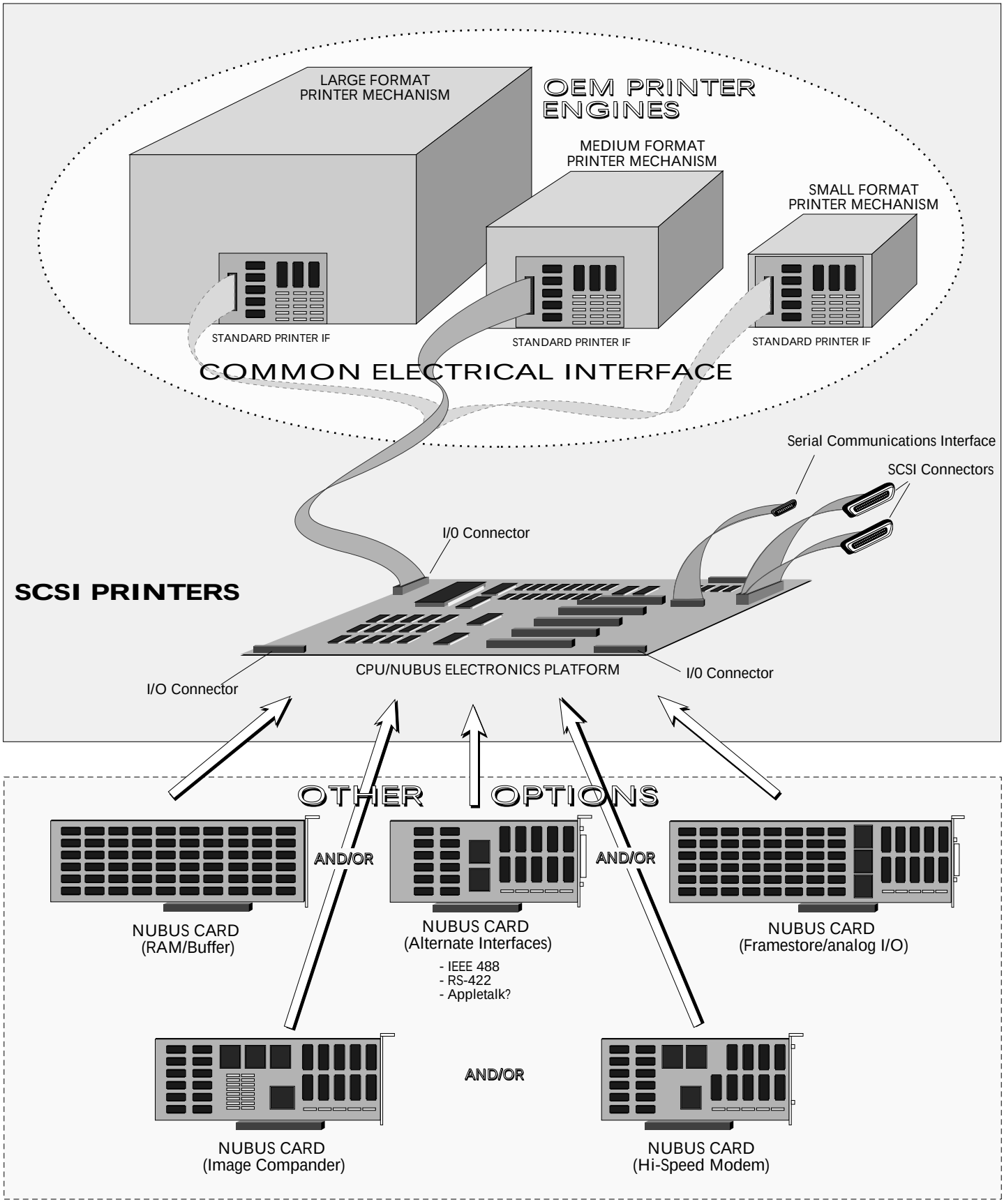
COMMON ELECTRICAL INTERFACE FOR EPD PRODUCTS

P J Sucy 4/25/88



COMMON ELECTRICAL INTERFACE FOR EPD PRODUCTS

P J Sucy 4/22/88



COMMON ELECTRICAL INTERFACE FOR EPD PRODUCTS

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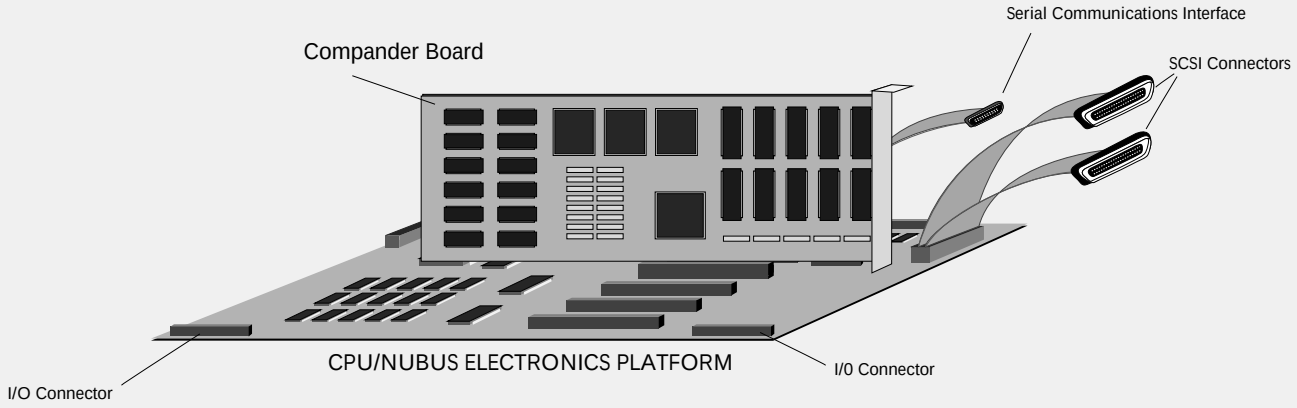
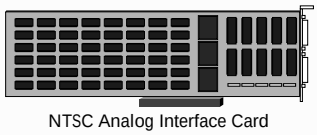
Gen II Transceiver

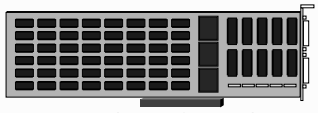


OPTIONS

Analog Video Interfaces

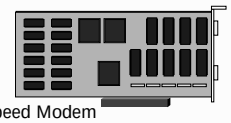


NTSC Analog Interface Card

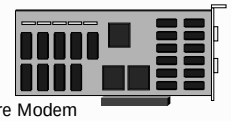


PAL Analog Interface Card

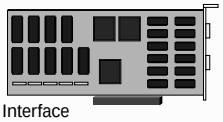
Telephone Interfaces



Hi Speed Modem



Secure Modem

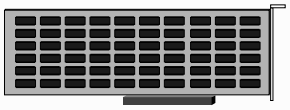


ISDN Interface

Digital Interfaces

Digital Interface Board
IEEE 488, Centronics, etc.

Image Buffer



Digital Memory Buffer