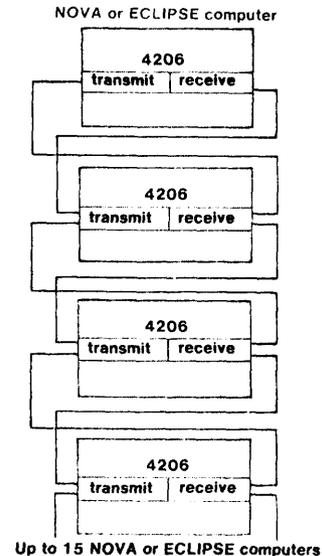


PRODUCT BRIEF

FEATURES

- Interconnects multiple computers into multiprocessor rings
- Up to 15 NOVA[®] and/or ECLIPSE[®] computers can be tied together
- Data channel intercommunication
- Simultaneous data transmission and reception
- Program controlled transmission
- Handles multiple concurrent messages
- 1 million byte-per-second data transfer rate
- Processors up to 150 feet (49.2 m) apart



DESCRIPTION

The Model 4206 Multiprocessor Communications Adapter (MCA) is a field-proven, high-speed controller that connects up to 15 Data General computers in a multiprocessor ring configuration. The MCA transfers data blocks from one computer to another through their Direct Memory Access (DMA) channels. It permits concurrent data transfers between computers at rates up to 1 million bytes per second. The MCA is supported by Data

General's Real-time Disc Operating System (RDOS) and the Real-Time Operating System (RTOS). It is used in applications that require load sharing, system redundancy, or provision for expansion. These include dividing heavy computation jobs, supporting data communications systems, or controlling real-time applications.

OPERATION

Jumper-selected ring addresses identify each MCA's transmitter and receiver, which are connected into communications links and activated by application programs. Once the receiver is activated, it locks on to any transmitter that sends it a word. The receiver accepts data only from that transmitter until the program unlocks it. In order to initialize a transmitter or receiver, the application program supplies an initial address and word count. As each word is received, it is stored in the memory location the address counter specifies, and both the address counter and word counter are incremented. The receiver will not

accept a word until the previous word is stored. When a transfer is completed, the receiver is again ready to accept data from any transmitter.

An MCA network operates in one of two jumper-selected modes: normal or fast. In normal mode, a network can transmit up to 625,000 bytes per second among as many as 15 NOVA or ECLIPSE computers. The communications bus can be up to 150 feet (49.2 m) long. In fast mode, a network of up to four Data General computers can transmit up to 1 million bytes. The communications bus cable has a maximum length of 40 feet (13.1 m).

PACKAGING

The 4206 Multiprocessor Communications Adapter is a reliable controller that is contained on a single 15-inch (38.1 cm) square printed circuit board. It occupies a single slot in a Data General NOVA or ECLIPSE computer. It is completely self contained,

with the transmitter, receiver and word and address counters located on the board. This compactness makes the MCA easy to install, while its modularity reduces maintenance and replacement.

SOFTWARE SUPPORT

The Multiprocessor Communications Adapter is supported by Data General's Real-time Disc Operating System (RDOS) and by the Real-Time Operating System (RTOS). RDOS is a powerful device independent multitask system that is both a powerful

program development tool and a comprehensive file-oriented, real-time operating system. RTOS provides multitasking and high speed peripheral support for real-time applications that do not require file management facilities.

SPECIFICATIONS

GENERAL

Modes of operation: Two, normal and fast (jumper selectable).
Data Rates: 625,000 bytes per second, normal mode; 1 million bytes per second, fast mode.
Number of computers supported: Up to 15, normal mode; up

to four, fast mode.
Maximum communications bus cable length: 150 feet (49.2 m), normal mode; 40 feet (13.1 m), fast mode.

ENVIRONMENTAL

Temperature Range: 0° to +55°C operating; -35°C to +170°C storage.
Relative Humidity Range: To 90% operating; to 95% storage.

Altitude Range: To 10,000' (3,048 m) operating; to 50,000' (15,240 m) storage.

REFERENCE DOCUMENTATION

Data General technical references:
014-072 Multiprocessor Communications Adapter Technical Reference
093-056 RTOS Reference Manual
093-075 RDOS Reference Manual

093-129 RDOS Reference Manual (ECLIPSE)
093-135 RTOS Reference Manual (ECLIPSE)
012-084 RTOS Product Brief
012-100 RDOS Product Brief

SALES AND SERVICE

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The materials contained herein are summary in nature, subject to change, and intended for general information only. Details and specifications concerning the use and operation of Data

General equipment and software are available in the applicable technical manuals, available through local sales representatives.

DataGeneral

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