2200

PRODUCT DATA SHEET

MODEL 2254 IEEE-488 INTERFACE

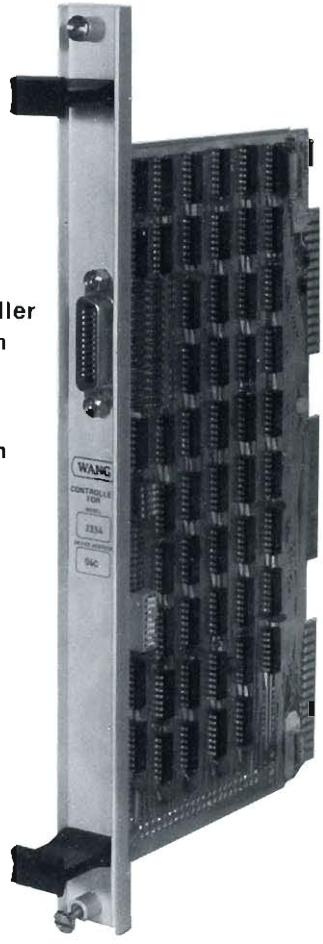
The Model 2254 IEEE-488 Interface allows a Wang 2200 series VP system to be compatible with other devices using the IEEE 488-1975 standard.*

The interface board plugs into one of the input/output (I/O) slots in the VP Central Processing Unit (CPU). A 24-pin Microribbon or Champ connector, supplied with the board, serves as an I/O connection. I/O circuits for the Model 2254 Interface are TTD/DTL compatible. Digital information is transferred between system components in byte serial and bit parallel modes, along with bus control and management information. Devices connected to the interface board can be one or more of the following.

Listener	A device addressed by an interface message to receive device dependent messages from another device, e.g., programmable power supply, printer.
Talker	A device addressed by an interface message to send device dependent messages to another device, e.g., digital voltmeter, counter.
Talker/ Listener	A device that can both send and receive information from the bus, e.g., programmable analyzer, counter.
Controller	A device that controls information on the bus, e.g., computer, intelligent instrument.

With the Model 2254 Interface, the 2200 series VP system can serve as either the system controller (controlling, talking, or listening) or as a non-controller (talking or listening). The $GIO command capability is necessary to properly control the Model 2254; however, once protocol is established, other BASIC statements can be used to transfer information.

- **Supports IEEE 488-1975 Specifications**
- **Field Adjustable for Controller or Non-Controller Operation**
- **Utilizes $GIO and BASIC Statements for Information Transfer**



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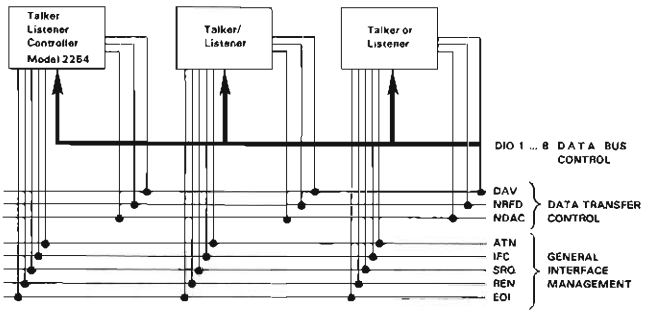
The following figure illustrates the interface system, which contains a set of 16 signal lines, used to carry all messages among interconnected devices.



Interface Bus Structure

When the Model 2254 Interface serves as the system controller the 2200 series VP system can support the following subset of the IEEE 488-1975 Specifications.*

- C1 - System Controller
- C2 - Send IFC (Interface Clear)
- C3 - Send REN (Remote Enable)
- C4 - Recognize SRQ (Service Request)
- C25 - Send all standard multi-line interface messages
- - Serial Poll
- - Parallel Poll
- - Take Control Synchronously
- SR1 - Send Service Request
- L2 - Basic Listener
- T4 - Basic Talker
- AH1 - Full Acceptor Handshake
- SH1 - Full Source Handshake

When the 2254 Interface serves as a non-controller, the 2200 series VP system can support the following subset of the IEEE 488-1975 Specifications.*

- CO - System Non-Controller
- PP2 - Respond to Parallel Poll (configuration set by field service representative at installation time)
- SR1 - Send Service Request
- L2 - Basic Listener
- T4 - Basic Talker
- AH1 - Full Acceptor Handshake
- SH1 - Full Source Handshake

SPECIFICATIONS

Size
Height . . . . . 7.0 in. (17.8 cm)
Width . . . . . 13.5 in. (34.3 cm)
Depth . . . . . 1.3 in. (3.2 cm)

Weight
3 lb (1.35 kg)

Power Requirements
Supplied by the CPU

Connector
A 24-pin Microribbon or Champ I/O connector

Number of Devices
15 maximum

Bus length
20 meters maximum

Signal Levels
Logic "0" (HIGH ≥ 2.0 volts)
Logic "1" (LOW ≤ 0.8 volts)

Signal Definitions*

Data Transfer Control		Data Bus Control	
DAV	Data valid	DIO1	DIO5
NRFD	Not ready for data	DIO2	DIO6
NDAC	Data not accepted	DIO3	DIO7
General Interface Management		DIO4	DIO8
ATN	Attention		
IFC	Interface clear		
SRQ	Service request		
REN	Remote enable		
EOI	End or identify		

Data Transfer Rate
30 kilobytes/sec

Model 2254 Connector Pin Assignments

Pin #	Function	Pin #	Function	Pin #	Function
1	DIO 1	9	IFC	17	REN
2	DIO 2	10	SRQ	18	DAV GND
3	DIO 3	11	ATN	19	NRFD GND
4	DIO 4	12	SHIELD	20	NDAC GND
5	EOI	13	DIO 5	21	IFC GND
6	DAV	14	DIO 6	22	SRQ GND
7	NRFD	15	DIO 7	23	ATN GND
8	NDAC	16	DIO 8	24	LOGIC GND

* For complete IEEE STD 488-1975 definitions and specifications, refer to the Institute of Electrical Engineers, Inc., publication of 4/4/75, "IEEE Standard Digital Interface for Programmable Instrumentation".

Ordering Specifications

An interface providing information transfer between a Wang 2200 Series VP Central Processing Unit and devices that conform to IEEE 488-1975 standard. As a controller the interface must meet subsets: C1, C2, C3, C4, C25, SR1, L2, T4, AH1, and SH1. As a noncontroller the interface must meet subsets: CO, PP2, SR1, L2, T4, AH1, and SH1.

Standard Warranty Applies

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