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

The interface board plugs into one of the I/O slots in the Central Processing Unit (CPU) of the Wang system and a 24-pin Microribbon or Champ connector, supplied with the board, serves as an input/output connection. Input/output circuits for the Model 2254 interface are TTL/DTL* compatible. Digital information is transferred between systems components in byte serial and bit parallel modes along with BUS control and management information. Devices connected to the interface board may be any one of the following:

**Listeners** : Devices receiving information (printers, programmable power supply, etc.)

**Talkers** : Devices sending information only (digital meter, counters, etc.)

**Talker/Listeners** : Devices sending and receiving information (programmable analyzers, counters, etc.)

**Controllers** : Devices controlling information on the BUS (computers, intelligent instruments, etc.)

With the Model 2254 Interface, the 2200 system can serve as either the system controller (controlling, talking or listening) or as a noncontroller (talking or listening). The Model 2254 is designed to operate with all Wang systems which have the $GIO capability as follows: 2200B or C with Option 2, 2200S with Option 23, 2200T, WCS/20, WCS/30. The $GIO command is necessary to properly control the Model 2254, however, once protocol is established, other BASIC statements may be used to transfer information.

The 2254 can be wired to operate as a controller or noncontroller. It supports the following subset of the IEEE 488-1975 Specification in each mode:

**CONTROLLER**

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 and in addition
   • Send Parallel Poll
   • Send Take Control Synchronously

SR1 — Process Service Request
L2 — Basic Listener
T4 — Basic Talker
AH1 — Full Acceptor Handshake
SH1 — Full Source Handshake

*TTL = transistor-transistor logic
DTL = diode-transistor logic
DATA SHEET

NON-CONTROLLER
CO — System Non-Controller
PP2 — Respond to Parallel Poll (fixed configuration)
SR1 — Send Service Request
L2 — Basic Listener
T4 — Basic Talker
AH1 — Full Acceptor Handshake
SH1 — Full Service Handshake

SPECIFICATIONS

Size
Height . . . . . . . . . . . . . . . . . . . . . . . 7 in. (17.8 cm)
Width . . . . . . . . . . . . . . . . . . . . . . 13.5 in. (34.3 cm)
Depth . . . . . . . . . . . . . . . . . . . . . . 1.25 in. (3.2 cm)

Weight
3 lb (1.36 kg)

Power Requirements
Supplied by the CPU

Connector
A 24-pin Microribbon or Champ input/output 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
DAV Data valid
NRFD Not ready for data
NDAC Data not accepted

General Interface Management
ATN Attention
IFC Interface clear
SRQ Service request

SPECIFICATIONS (Cont.)
REN Remote enable
EOI End of identify

Data Bus Control
DIO1 DIO5
DIO2 DIO6
DIO3 DIO7
DIO4 DIO8

Data Transfer Rate
30 k bytes/sec

Model 2254 Connector Pin Assignments

<table>
<thead>
<tr>
<th>Pin Number</th>
<th>Function</th>
<th>Pin Number</th>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>DIO 1</td>
<td>13</td>
<td>DIO 5</td>
</tr>
<tr>
<td>2</td>
<td>DIO 2</td>
<td>14</td>
<td>DIO 6</td>
</tr>
<tr>
<td>3</td>
<td>DIO 3</td>
<td>15</td>
<td>DIO 7</td>
</tr>
<tr>
<td>4</td>
<td>DIO 4</td>
<td>16</td>
<td>DIO 8</td>
</tr>
<tr>
<td>5</td>
<td>EOI</td>
<td>17</td>
<td>REN</td>
</tr>
<tr>
<td>6</td>
<td>DAV</td>
<td>18</td>
<td>DAV GND</td>
</tr>
<tr>
<td>7</td>
<td>NRFD</td>
<td>19</td>
<td>NRFD GND</td>
</tr>
<tr>
<td>8</td>
<td>NDAC</td>
<td>20</td>
<td>NDAC GND</td>
</tr>
<tr>
<td>9</td>
<td>IFC</td>
<td>21</td>
<td>IFC GND</td>
</tr>
<tr>
<td>10</td>
<td>SRQ</td>
<td>22</td>
<td>SRQ GND</td>
</tr>
<tr>
<td>11</td>
<td>ATN</td>
<td>23</td>
<td>ATN GND</td>
</tr>
<tr>
<td>12</td>
<td>SHIELD</td>
<td>24</td>
<td>LOGIC GND</td>
</tr>
</tbody>
</table>

ORDERING SPECIFICATIONS
An interface providing information transfer from a Wang System 2200 Series Central Processing Unit to 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


WANG LABORATORIES, INC.
836 NORTH STREET, TEMSKSBURY, MASSACHUSETTS 01876, TEL (617) 851-4111, TWX 710 343-6769, TELEX 94-7421

Wang reserves the right to change specifications without prior notice.