

Tape and SIO Connectors

Tape Connector pins are taken from Figure 16 on page 26 of A24-1424-0 **Reference Manual 1401 Data Processing System Original Equipment Manufacturers' Information**.

SIO Connector pins are taken from Figure 42 on page 72 of S23-5013 **Customer Engineering Manuals Supplement**, which is the same as Figure 22 on page 26 of Form 223-2644 (the latter being of better quality). The instruction portion is a supplement to **7040-7044 Data Processing System, Input-Output-Channel A Operations**, Form R23-2652. The figures are a supplement to **Customer Engineering Reference Manual, IBM 7040-7044 Data Processing System Channel A**, Form 223-2644. S23-5013 was not to be taken as a definitive instruction-reference manual, but rather for the sole purpose of supplying information on interface 5 until revision of the above manuals was completed.

Pins	Tape Connector	SIO Connector	
1-2	-N: Turn On	+U: A-Reg Sel 1	+U A-Reg Sel 2
3-4	+P: Turn Off	+U: A-Reg Sel 4	-T: Force Odd Redundancy
5-6	+P: Go	-U: Disc Latch Reset In	+U: Not I-O Read Call
7-8	-N: BKWD	+U: Select I-O Attach Out	-T: Reset A-Reg Error
9-10	-N: Start Rewind	+U: Set Write Latch In	+U: Set Read Latch In or Disc
11-12	-N: Set Write Status	+U: Set Error Latch In	-T: I-O Trans EOR
13-14	+P: Set Read Status	-T: I-O Trans 1	+U: I-O Disc Out 1
15	Empty	+U: I-O Disc Out 2	Empty
16-17	Empty	+U A-Reg Not 1 2	+U: A-Reg AB
18-19	Empty	+U: A-Reg A Not B	-T Force Odd Redundancy 1 Out
20-21	+P: Sel and Rdy Mod IV	-U: Disc Latch Reset Out	+U: Not I-O Read Call
22-23	-N: Sel and T.I. On	+U: Set I-O Latch In	-T: Reset A-Reg Error 1
24-25	-N: Sel and T.I. Off	+U: Set Write Latch Out	+U: Set Read Latch Out
26-27	+P: Sel and at Ld Pt	+U: Set Error Lateh 1 Out	-T: I-O Trans 2
28-29	+P: Sel and not at Ld Pt	+U: Select 1 Out	+U: Select 1 In
30	Empty	+U: I-O Disc In	Empty
31-32	+P: Sel and Rdy Mod II	+U: A-Reg B Not A	+U: A-Reg 2 Not 1
33-34	+P: Sel and Read only	+U: A-Reg Not 8 4	+U: A-Reg 4 Not 8
35-36	+P: Sel Ready and Write	+U: A-Reg 1 Not 2	+U: +6V
37-38	-N: Sel and Rewind	+U: Not Start Reset Out	+U: Start Reset
39-40	+P: Rewind and Unload	+U: Start Reset Out	+U: Data C Out
41-42	+P: Set Hi Density	+U: Service Request Out 1	+U: Service Request Out 2
43-44	-N: Set Lo Density	+U: Service Request In	+U: A-Reg 1 2

Pins	Tape Connector	SIO Connector	
45	Empty	+U: A-Reg 8 Not 4	Empty
46-47	+P: Hi Density	-T: Sel I-O Out	-T: Sel I-O In
48-49	Shield and Spare	-T: Force Odd Redundancy 2	+U: Data C Load or Move In
50-51	Empty	-T: I-O Write Call In	-T: I-O Write Call Out
52-53	Empty	-C: I-O Ready (Overlap)	I-O Ready (Overlap)
54-55	Empty	-T: Not Sel I-O Out	-T Not Sel I-O In
54-55	Empty		(Block Readdress)
56-57	Empty	+U: Data C Load Or Move Out	Emergency Off Switch
58-59	Empty	Emergency Off Switch	1401 Is Stopped
60	Empty	1401 Is Stopped	Empty
61-62	Empty	Empty	Empty
63-64	Empty	Empty	Empty
65-66	Empty	Empty	Empty
67-69	Empty	Empty	Empty
69-70	Empty	Drop 1401 Power	Drop 1401 Power
72-73	Empty	Empty	Empty
73-74	Empty	Empty	Empty
75	Empty	Empty	Empty
76-77	Empty	Empty	Empty
78-79	+P: Select TU 1	Empty	Empty
80	Empty	Empty	Empty
81	Empty	Empty	Empty
82-83	8V PP: Read Bus 1	-C: Single Character Transfer	Single Character Transfer
84-85	8V PP: Read Bus 2	-C: 1401 Reset	1401 Reset
86-87	+P: Select TU 2	-C: I-O Transfer 1 (Error)	I-O Transfer 1 (Error)
88-89	+P: Select TU 3	-C: I-O Transfer 2	I-O Transfer 2
90	Empty	-C: I-O Transfer 3	Empty
91	Empty	-C: End of Transmission	Empty
92-93	8V PP: Read Bus 4	End of Transmission	-C: I-O Readdress
94-95	8V PP: Read Bus 8	I-O Readdress	-C: I-O Process Check
96-97	+P: Select TU 4	-C: I-O Transfer 4	I-O Transfer 4
98-99	+P: Select TU 5	-C: I-O Transfer 5	I-O Transfer 5
100	Empty	I-O Transfer 3	Empty
101	Empty	-C: I-O Time 000-030	Empty
102-103	8V PP: Read Bus A	I-O Time 000-030	-C: I-O Time 030-060

Pins	Tape Connector	SIO Connector	
104-105	8V PP: Read Bus B	I-O Time 030-060	I-O Process Check
106-107	+P: Select TU 6	-C: I-O Transfer 6	I-O Transfer 6
108-109	Empty	-C: I-O Transfer 7	I-O Transfer 7
110	Empty	-C: Reset Transmission Error Latch	Empty
111	Empty	-C: I-O Output WM	Empty
112-113	8V PP: Read Bus C	I-O Output WM	-C: I-O Service Request
114-115	Shield and Spare	I-O Service Request	-C: Select I-O Service Attach
116-117	Empty	-C: I-O Transfer 8	I-O Transfer 8
118-119	Empty	-C: Service Response (1401 SVC Request	Service Response (1401 SVC Request
120	Empty	Reset Transmission Error Latch	Empty
121	Empty	-C: I-O Attachment Write Call	Empty
122-123	Shield and Spare	I-O Attachment Write Call	-C: I-O Attachment Read Call
124-125	Shield and Spare	I-O Attachment Read Call	Empty
126-127	Empty	-C: I-O Time 090-000	I-O Time 090-000
128-129	Empty	-C: I-O Time 060-090	I-O Time 060-090
130-131	Empty	-C: I-O 14 Select	I-O 14 Select
132-133	+6V	-C: I-O Selecting Unit	I-O Selecting Unit
134-135	Empty	-C: I-O Attention Light	I-O Attention Light
136-137	Empty	-C: I-O Discionnect	I-O Discionnect
138-139	Empty	-C: I-O 9 Select	I-O 9 Select
140	-6V	-C: I-O 8 Select	Empty
141-142	Empty	-C: I-O 1 Select	I-O 1 Select
143-144	Empty	-C: I-O 2 Select	I-O 2 Select
145-146	Empty	-C: I-O 3 Select	I-O 3 Select
147-148	Empty	-C: I-O 4 Select	I-O 4 Select
149-150	Empty	-C: I-O 5 Select	I-O 5 Select
151-152	Empty	-C: I-O 6 Select	I-O 6 Select
153-154	Empty	-C: I-O 7 Select	I-O 7 Select
155	Empty	I-O 8 Select	Empty
156-157	Empty	-C: I-O 10 Select	I-O 10 Select
158-159	Empty	-C: I-O 11 Select	I-O 11 Select
160-161	Empty	-C: I-O 12 Select	I-O 12 Select
162-163	Ground	-C: I-O 13 Select	I-O 13 Select
164-165	Empty	-C: I-O Unit 1 Control	I-O Unit 1 Control
166-167	Empty	-C: I-O Unit 2 Control	I-O Unit 2 Control

Pins	Tape Connector	SIO Connector	
168–169	Empty	–C: I–O Load	I–O Load
170	–12V	–C: I–O Input WM	Empty
171–172	–N: Write Bus 1	–C: I–O Input 1	I–O Input 1
173–174	–N: Write Bus 2	–C: I–O Input 2	I–O Input 2
175–176	–N: Write Bus 4	–C: I–O Input 4	I–O Input 4
177–178	–N: Write Bus 8	–C: I–O Input 8	I–O Input 8
179–180	–N: Write Bus B	–C: I–O Input A	I–O Input A
181–182	–N: Write Bus A	–C: I–O Input B	I–O Input B
183–184	–N: Write Bus C	–C: I–O Input C	I–O Input C
185	Empty	I–O Input WM	Empty
186–187	Spare and Shield	–C: I–O Output 1	I–O Output 1
188–189	Spare and Shield	–C: I–O Output 2	I–O Output 2
190–191	Spare and Shield	–C: I–O Output 4	I–O Output 4
192–193	–N: Write Echo Pulse	–C: I–O Output 8	I–O Output 8
194–195	–N: Reset Wr Toggles	–C: I–O Output A	I–O Output A
196–197	–N: Write Pulse	–C: I–O Output B	I–O Output B
198–199	Empty	–C: I–O Output C	I–O Output C
200	Empty	Empty	Empty

Signal is specified for the first pin in the tape connector, and for the specified pin in the SIO connector.