Maintenance Manual

MODEM UNIT
SHELF ASSEMBLY
19D902542G1

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ERICSSON

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NOTICE!

This manual covers Ericsson and General Electric products manufactured and sold by Ericsson Inc.

NOTE

Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitution of recommended parts made by the user to this equipment not approved by the manufacturer could void the user's authority to operate the equipment in addition to the manufacturer's warranty.

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SPECIFICATIONS

DIMENSIONS (H x W)	130 mm X 426 mm
INPUT VOLTAGE	+5 Vdc, +12 Vdc, -12 Vdc
NUMBER OF CARD SLOTS	
Modem (Rockwell)	10 (P02, P04, P06, P08, P10, P12, P14, P16, P18, P20)
Modem Interface Module	10 (P01, P03, P05, P07, P09, P11, P13, P15, P17, P19)
CONNECTORS:	
P01 - P20 P13 - P27	64 Pins
J01, J01A, J02, J02A J03, J03A, J04, J04A J05, J05A, J06	50 Pin Header Type
J7(TB1)	12 Pin Terminal Stip
FUSE (Current Rating)	
F1	10 Amperes
F2,F3	3 Amperes

DESCRIPTION

Modem Unit Shelf Assembly 19D902542G1 provides a backplane (19D902559P1) with jacks and printed wire patterns to accomodate ten Modem Interface modules and ten Rockwell Modem modules used in the Simulcast **EDACS**® system as follows:

- Modem Interface 1 (P01)
- Modem Board 1 (P02)
- Modem Interface 2 (P03)
- Modem Board 2 (P04)
- Modem Interface 3 (P05)
- Modem Board 3 (P06
- Modem Interface 4 (P07)
- Modem Board 4 (P08)
- Modem Interface 5 (P09)
- Modem Board 5 (P10)
- Modem Interface 6 (P11)
- Modem Board 6 (P12)
- Modem Interface 7 (P13)
- Modem Board 7 (P14)
- Modem Interface 8 (P15)
- Modem Board 8 (P16)
- Modem Interface 9 (P17)
- Modem Board 9 (P18)
- Modem Interface 10 (P19)
- Modem Board 10 (P20)

Each jack, where a module plugs (P01 through P20), is a 64 pin connector.

The input/output plugs (J01, J01A through J06) are 50 pin header type connectors.

Terminal Block TB1 (J7), for connecting power, is a 12 pin terminal strip.

A fuse protected +5 Vdc is provided for the shelf through fuse F1 (10 Amperes).

A fuse protected +12 Vdc is provided for the shelf through fuse F2 (3 Amperes).

A fuse protected -12 Vdc is provided for the shelf through fuse F3 (3 Amperes).

CIRCUIT FUNCTIONAL DESCRIPTION

MODEM INTERFACE MODULE

A Modem Interface Module (19D902442P1) is used with each modem to convert the TTL modem output signal levels to RS232 signal output levels and the RS232 signal input levels to TTL input signal levels. These levels are TTL-H (High), TTL-L (Low), RS232-H (High) and RS232-L (Low). The TTL and RS232 levels are as follows:

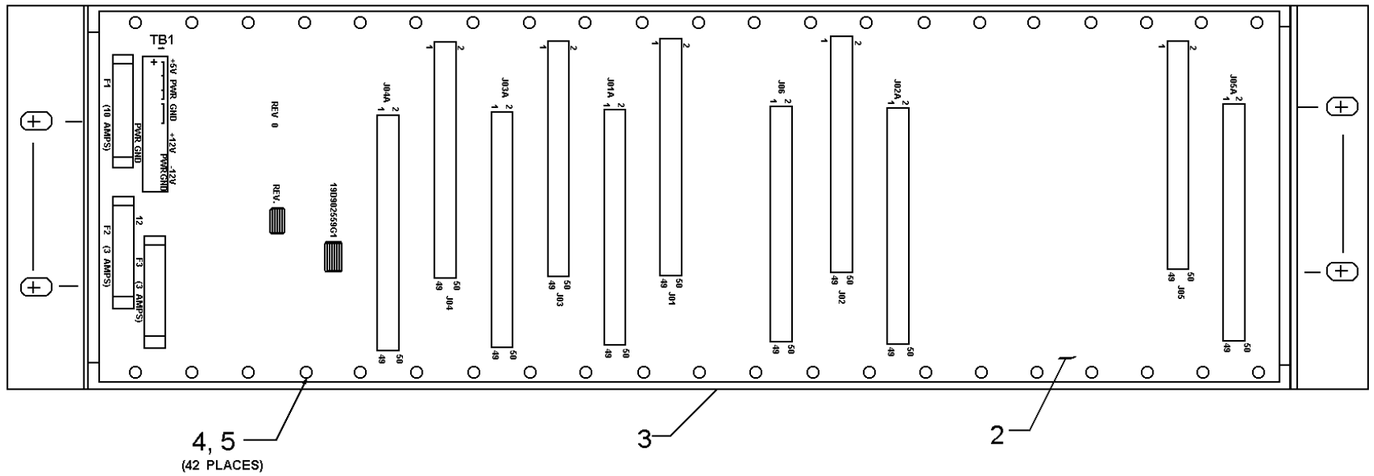
TTL-H	3 to 5 Volts
TTL-L	0 to 0.8 Volts
RS232-H	10 to 12 Volts
RS232-L	-10 to -12 Volts

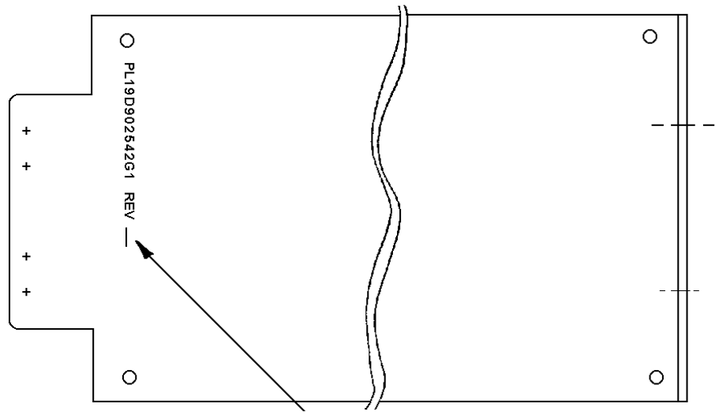
Signal interfacing includes the following:

- **TXA/MTA** (Transmit Audio)
- **RXA/MRA** (Receive Audio)
- **RLSD** (**R**eceive **L**ine **S**ignal **D**etector)
- **RTS** (**R**equest-**T**o-**S**end)
- **CTS** (**C**lear-**T**o-**S**end)
- **TXD** (**T**ransmit **D**ata)
- **RXD** (**R**eceive **D**ata)
- **RDCLK** (**R**eceive **D**ata **CL**oc**K**)
- **XTCLK** (E**X**ternal **T**ransmit **CL**oc**K**)

ROCKWELL MODEM

Rockwell Modem 19A705178P1 (R96FT) is designed for multipoint and networking applications. It allows full-duplex operation over 4-wire dedicated unconditioned telephone lines or half-duplex operation over the general switched telephone network. In the Simulcast System the modem is used to transmit and receive 9600 bps serial data to and from 4-wire dedicated unconditioned telephone lines under control of the GETC shelf.





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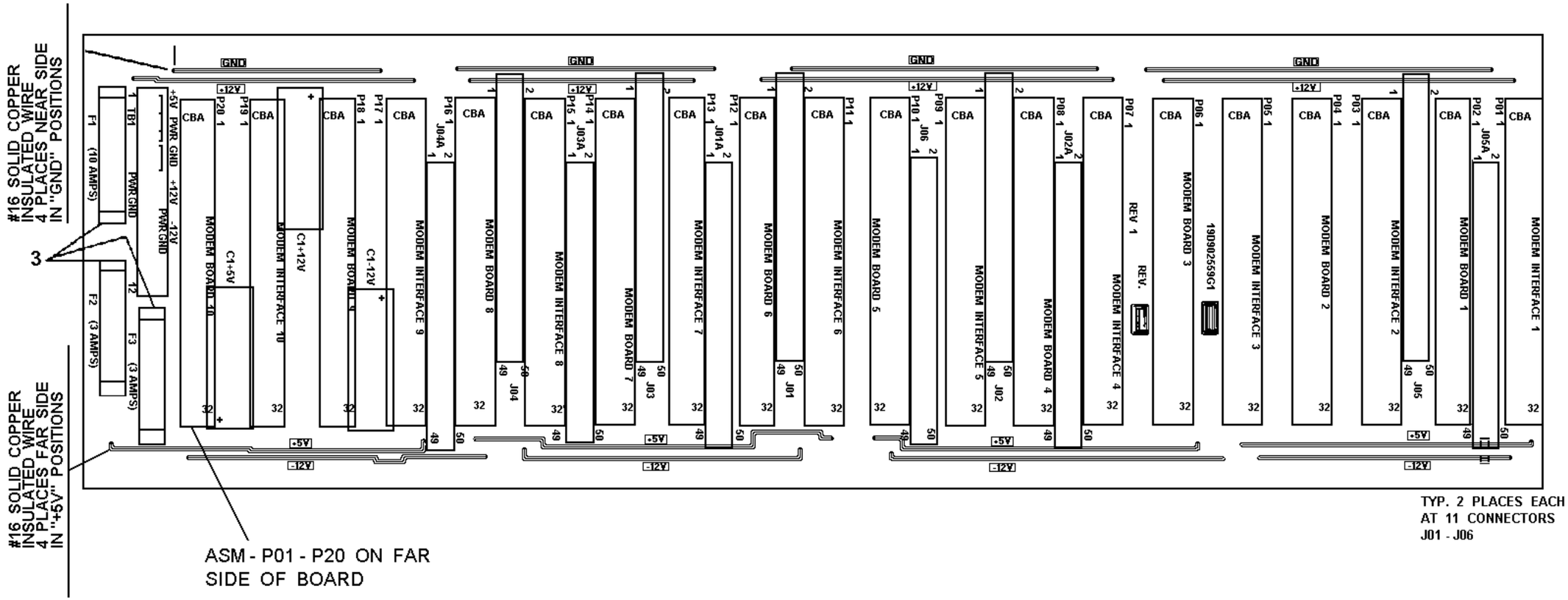
MODEM UNIT SHELF
19D902542G1

(19D902542 Sh. 1, Rev. 1A)



MODEM UNIT SHELF
19D902542G1

(19D902559, Sh. 1, Rev. 4)

MODEM UNIT ASSEMBLY
19D902542G1
ISSUE 1

SYMBOL	PART NO.	DESCRIPTION
	19B235208P1	VME Shelf.
	19A700031P305	Screw: M2.5.
	19A700032P3	Lockwasher, tooth, steel, metric: 2.5.
		MODEM BACKPLANE 19D902559P1
		-----FUSES-----
F1	LTTLF312003	3 Amp, fast blow.
	LTTLF314010	10 Amp, fast blow.
		-----CONNECTORS-----
J01	AMP1- 499582-0	Connector, printed wire.
J01A	AMP1- 499582-0	Connector, printed wire.
J02	AMP1- 499582-0	Connector, printed wire.
J02A	AMP1- 499582-0	Connector, printed wire.
J03	AMP1- 499582-0	Connector, printed wire.
J03A	AMP1- 499582-0	Connector, printed wire.
J04	AMP1- 499582-0	Connector, printed wire.
J04A	AMP1- 499582-0	Connector, printed wire.
J05	AMP1- 499582-0	Connector, printed wire.
J05A	AMP1- 499582-0	Connector, printed wire.
J06	AMP1- 499582-0	Connector, printed wire.
		-----PLUGS-----
P1 thru P20	AMP535032-4	Connector, printed wire
		-----TERMINALS-----
TB1	19A116659P58	Connector, printed wire.
		-----MISCELLANEOUS-----
		Fuse clip, Bussman 1A119-05. (Quantity 2).
	AMP102320-1	Latch. (Quantity 10).

*COMPONENTS ADDED, DELETED OR CHANGED BY PRODUCTION CHANGES.

WIRING LIST

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
F01-01	F01-02	+5V SUPPLY	
	TB1-01		
	TB1-02		
	TB1-03		
F01-02	F01-01	+5V SUPPLY	
	TB1-01		
	TB1-02		
	TB1-03		
F01-03	#	+5V	
F01-04	#	+5V	
F02-01	F02-02	+12V SUPPLY	
	TB1-07		
	TB1-08		
F02-02	F02-01	+12V SUPPLY	
	TB1-07		
	TB1-08		
F02-03	@	+12V	
F02-04	@	+12V	
F03-01	TB1-11	-12V SUPPLYF03-02	
	TB1-10		
F03-02	TB1-11	-12V SUPPLY	
F03-01			
TB1-10			
F03-03	%	-12V	
F03-04	%	-12V	
J01 TO B400 / B404			
J01-01	*	GND	
J01-02	P01-21C	DDATA S_ CH_1	See Note 2
J01-03	*	GND	
J01-04	P03-21C	DDATA S_ CH_2	See Note 2
J01-05	*	GND	
J01-06	P05-21C	DDATA S_ CH_3	See Note 2
J01-07	*	GND	
J01-08	P07-21G	DDATA S_ CH_4	See Note 2
J01-09	*	GND	
J01-10	P09-21C	DDATA S_ CH_5	See Note 2
J01-11	*	GND	
J01-12	P11-21C	DDATA S_ CH_6	See Note 2
J01-13	*	GND	
J01-14	P13-21C	DDATA S_ CH_7	See Note 2
J01-15	*	GND	
J01-16	P15-21C	DDATA S_ CH_8	See Note 2

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MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J01-17	*	GND	
J01-18	P17-21C	DDATA S_ CH_9	See Note 2
J01-19	*	GND	
J01-20	P19-21C	DDATA S_ CH_0	See Note 2
J01-21	*	GND	
J01-22	J01A-02	DDATA S_ CH11	See Note 2
J01-23	*	GND	
J01-24	J01A-04	DDATA S_ CH12	See Note 2
J01-25	*	GND	
J01-26	J01A-06	DDATA S_ CH13	See Note 2
J01-27	*	GND	
J01-28	J01A-08	DDATA S_ CH14	See Note 2
J01-29	*	GND	
J01-30	J01A-10	DDATA S_ CH15	See Note 2
J01-31	*	GND	
J01-32	J01A-12	DDATA S_ CH16	See Note 2
J01-33	*	GND	
J01-34	J01A-14	DDATA S_ CH17	See Note 2
J01-35	*	GND	
J01-36	J01A-16	DDATA S_ CH18	See Note 2
J01-37	*	GND	
J01-38	J01A-18	DDATA S_ CH19	See Note 2
J01-39	*	GND	
J01-40	J01A-20	DDATA S_ CH20	See Note 2
J01-41	*	GND	
J01-42	J01A-22	DDATA S_ CH21	See Note 2
J01-43	*	GND	
J01-44	J01A-24	DDATA S_ CH22	See Note 2
J01-45	*	GND	
J01-46	J01A-26	DDATA S_ CH23	See Note 2
J01-47	*	GND	
J01-48	J01A-28	DDATA S_ CH24	See Note 2
J01-49	*	GND	
J01-50	J01A-30	DDATA S_ CH25	See Note 2
J01 TO B400 / B404			
J01A-01	*	GND	
J01A-02	J01-22	DDATA S_ CH11	See Note 2
J01A-03	*	GND	
J01A-04	J01-24	DDATA S_ CH12	See Note 2
J01A-05	*	GND	
J01A-06	J01-26	DDATA S_ CH13	See Note 2
J01A-07	*	GND	
J01A-08	J01-28	DDATA S_ CH14	See Note 2
J01A-09	*	GND	

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J01A-10	J01-30	DDATA S_ CH15	See Note 2
J01A-11	*	GND	
J01A-12	J01-32	DDATA S_ CH16	See Note 2
J01A-13	*	GND	
J01A-14	J01-34	DDATA S_ CH17	See Note 2
J01A-15	*	GND	
J01A-16	J01-36	DDATA S_ CH18	See Note 2
J01A-17	*	GND	
J01A-18	J01-38	DDATA S_ CH19	See Note 2
J01A-19	*	GND	
J01A-20	J01-40	DDATA S_ CH20	See Note 2
J01A-21	*	GND	
J01A-22	J01-42	DDATA S_ CH21	See Note 2
J01A-23	*	GND	
J01A-24	J01-44	DDATA S_ CH22	See Note 2
J01A-25	*	GND	
J01A-26	J01-46	DDATA S_ CH23	See Note 2
J01A-27	*	GND	
J01A-28	J01-48	DDATA S_ CH24	See Note 2
J01A-29	*	GND	
J01A-30	J01-50	DDATA S_ CH25	See Note 2
J02 TO B400 / B404			
J02-01	P01-20C	DCLKA	See Note 2
J02-02	*	GND	
J02-03	P03-20C	DCLKB_	See Note 2
J02-04	*	GND	
J02-05	P05-20C	DCLKC_	See Note 2
J02-06	*	GND	
J02-07	P07-20C	DCLKD_	See Note 2
J02-08	*	GND	
J02-09	P09-20C	DCLKE_	See Note 2
J02-10	*	GND	
J02-11	P11-20C	DCLKF_	See Note 2
J02-12	*	GND	
J02-13	P13-20C	DCLKG_	See Note 2
J02-14	*	GND	
J02-15	P15-20C	DCLKH_	See Note 2
J02-16	*	GND	
J02-17	P17-20C	DCLM_	See Note 2
J02-18	*	GND	
J02-19	P19-20C	DCLKJ_	See Note 2
J02-20	*	GND	
J02-21	J02A-01	DCLKK_	See Note 2
J02-22	*	GND	

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MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J02-23	J02A-03	DCLKL_	See Note 2
J02-24	*	GND	
J02-25	J02A-05	DCLKM_	See Note 2
J02-26	*	GND	
J02-27	J02A-07	DCLKN_	See Note 2
J02-28	*	GND	
J02-29	J02A-09	DCLKP_	See Note 2
J02-30	*	GND	
J02-31	J02A-11	DCLKQ_	See Note 2
J02-32	*	GND	
J02-33	J02A-13	DCLKR_	See Note 2
J02-34	*	GND	
J02-35	J02A-15	DCLKS_	See Note 2
J02-36	*	GND	
J02-37	J02A-17	DCLKT_	See Note 2
J02-38	*	GND	
J02-39	J02A-19	DCLKU_	See Note 2
J02-40	*	GND	
J02-41	J02A-21	DCLKV_	See Note 2
J02-42	*	GND	
J02-43	J02A-23	DCLKW_	See Note 2
J02-44	*	GND	
J02-45	J02A-25	DCLKX_	See Note 2
J02-46	*	GND	
J02-47	J02A-27	DCLKY_	See Note 2
J02-48	*	GND	
J02-49	J02A-29	DCLKZ_	See Note 2
J02-50	*	GND	
J02A-01	J02-21	DCLKK_	See Note 2
J02A-02	*	GND	
J02A-03	J02-23	DCLKL_	See Note 2
J02A-04	*	GND	
J02A-05	J02-25	DCLKM_	See Note 2
J02A-06	*	GND	
J02A-07	J02-27	DCLKN_	See Note 2
J02A-08	*	GND	
J02A-09	J02-29	DCLKP_	See Note 2
J02A-10	*	GND	
J02A-11	J02-31	DCLKQ_	See Note 2
J02A-12	*	GND	
J02A-13	J02-33	DCLKR_	See Note 2
J02A-14	*	GND	
J02A-15	J02-35	DCLKS_	See Note 2
J02A-16	*	GND	
J02A-17	J02-37	DCLKT_	See Note 2

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J02A-18	*	GND	
J02A-19	J02-39	DCLKU_	See Note 2
J02A-20	*	GND	
J02A-21	J02-41	DCLKV_	See Note 2
J02A-22	*	GND	
J02A-23	J02-43	DCLKW_	See Note 2
J02A-24	*	GND	
J02A-25	J02-45	DCLKX_	See Note 2
J02A-26	*	GND	
J02A-27	J02-47	DCLKY_	See Note 2
J02A-28	*	GND	
J02A-29	J02-49	DCLKZ_	See Note 2
J02A-30	*	GND	
J03 TO B404			
J03-01	P01-19A	RXMC CH_1	
J03-02	*	GND	
J03-03	P03-19A	RXMC CH_2	
J03-04	*	GND	
J03-05	P05-19A	RXMC CH_3	
J03-06	*	GND	
J03-07	P07-19A	RXMC CH_4	
J03-08	*	GND	
J03-09	P09-19A	RXMC CH_5	
J03-10	*	GND	
J03-11	P11-19A	RXMC CH_6	
J03-12	*	GND	
J03-13	P13-19A	RXMC CH_7	
J03-14	*	GND	
J03-15	P15-19A	RXMC CH_8	
J03-16	*	GND	
J03-17	P17-19A	RXMC CH_9	
J03-18	*	GND	
J03-19	P19-19A	RXMC CH_0	
J03-20	*	GND	
J03-21	J03A-01	RXMC CH11	
J03-22	*	GND	
J03-23	J03A-03	RXMC CH12	
J03-24	*	GND	
J03-25	J03A-05	RXMC CH13	
J03-26	*	GND	
J03 27	J03A-07	RXMC CH14	
J03-28	*	GND	
J03-29	J03A-09	RXMC CH15	
J03-30	*	GND	

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Continued

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J03-31	J03A-11	RXMC CH16	
J03-32	*	GND	
J03-33	J03A-13	RXMC CH17	
J03-34	*	GND	
J03-35	J03A-15	RXMC CH18	
J03-36	*	GND	
J03-37	J03A-17	RXMC CH19	
J03-38	*	GND	
J03-39	J03A-19	RXMC CH20	
J03-40	*	GND	
J03-41	J03A-21	RXMC CH21	
J03-42	*	GND	
J03-43	J03A-23	RXMC CH22	
J03-44	*	GND	
J03-45	J03A-25	RXMC CH23	
J03-46	*	GND	
J03-47	J03A-27	RXMC CH24	
J03-48	*	GND	
J03-49	J03A-29	RXMC CH25	
J03-50	*	GND	
J03A-01	J03-21	RXMC CH11	
J03A-02	*	GND	
J03A-03	J03-23	RXMC CH12	
J03A-04	*	GND	
J03A-05	J03-25	RXMC CH13	
J03A-06	*	GND	
J03A-07	J03-27	RXMC CH14	
J03A-08	*	GND	
J03A-09	J03-29	RXMC CH15	
J03A-10	*	GND	
J03A-11	J03-31	RXMC CH16	
J03A-12	*	GND	
J03A-13	J03-33	RXMC CH17	
J03A-14	*	GND	
J03A-15	J03-35	RXMC CH18	
J03A-16	*	GND	
J03A-17	J03-37	RXMC CH19	
J03A-18	*	GND	
J03A-19	J03-39	RXMC CH20	
J03A-20	*	GND	
J03A-21	J03-41	RXMC CH21	
J03A-22	*	GND	
J03A-23	J03-43	RXMC CH22	
J03A-24	*	GND	
J03A-25	J03-45	RXMC CH23	

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
J03A-26	*	GND	
J03A-27	J03-47	RXMC CH24	
J03A-28	*	GND	
J03A-29	J03-49	RXMC CH25	
J03A-30	*	GND	
J04-01	*	GND	
J04-02	P01-18C	RXMD CH_1	
J04-03	*	GND	
J04-04	P03-18C	RXMD CH_2	
J04-05	*	GND	
J04-06	P05-18C	RXMD CH_3	
J04-07	*	GND	
J04-08	P07-18C	RXMD CH_4	
J04-09	*	GND	
J04-10	P09-18C	RXMD CH_5	
J04-11	*	GND	
J04-12	P11-18C	RXMD CH_6	
J04-13	*	GND	
J04-14	P13-18C	RXMD CH_7	
J04-15	*	GND	
J04-16	P15-18C	RXMD CH_8	
J04-17	*	GND	
J04-18	P17-18C	RXMD CH_9	
J04-19	*	GND	
J04-20	P19-18C	RXMD CH_0	
J04-21	*	GND	
J04-22	J04A-02	RXMD CH11	
J04-23	*	GND	
J04-24	J04A-04	RXMD CH12	
J04-25	*	GND	
J04-26	J04A-06	RXMD CH13	
J04-27	*	GND	
J04-28	J04A-08	RXMD CH14	
J04-29	*	GND	
J04-30	J04A-10	RXMD CH1S	
J04-31	*	GND	
J04-32	J04A-12	RXMD CH16	
J04-33	*	GND	
J04-34	J04A-14	RXMD CH17	
J04-35	*	GND	
J04-36	J04A-16	RXMD CH18	
J04-37	*	GND	
J04-38	J04A-18	RXMD CH19	
J04-39	*	GND	
J04-40	J04A-20	RXMD CH20	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
J04-41	*	GND	
J04-42	J04A-22	RXMD CH21	
J04-43	*	GND	
J04-44	J04A-24	RXMD CH22	
J04-45	*	GND	
J04-46	J04A-26	RXMD CH23	
J04-47	*	GND	
J04-48	J04A-28	RXMD CH24	
J04-49	*	GND	
J04-50	J04A-30	RXMD CH25	
J04A-01	*	GND	
J04A-02	J04-22	RXMD CH11	
J04A-03	*	GND	
J04A-04	J04-24	RXMD CH12	
J04A-05	*	GND	
J04A-06	J04-26	RXMD CH13	
J04A-07	*	GND	
J04A-08	J04-28	RXMD CH14	
J04A-09	*	GND	
J04A-10	J04-30	RXMD CH15	
J04A-11	*	GND	
J04A-12	J04-32	RXMD CH16	
J04A-13	*	GND	
J04A-14	J04-34	RXMD CH17	
J04A-15	*	GND	
J04A-16	J04-36	RXMD CH18	
J04A-17	*	GND	
J04A-18	J04-38	RXMD CH19	
J04A-19	*	GND	
J04A-20	J04-40	RXMD CH20	
J04A-21	*	GND	
J04A-22	J04-42	RXMD CH21	
J04A-23	*	GND	
J04A-24	J04-44	RXMD CH22	
J04A-25	*	GND	
J04A-26	J04-46	RXMD CH23	
J04A-27	*	GND	
J04A-28	J04-48	RXMD CH24	
J04A-29	*	GND	
J04A-30	J04-50	RXMD CH25	
J05-01	P01-20A	CTS 232 CH_1	
J05-02	P01-27A	RTS 232 CH_1	
J05-03	P03-20A	CTS 232 CH_2	
J05-04	P03-27A	RTS 232 CH_2	
J05-05	P05-20A	CTS 232 CH_3	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
J05-06	P05-27A	RTS 232 CH_3	
J05-07	P07-20A	CTS 232 CH_4	
J05-08	P07-27A	RTS 232 CH_4	
J05-09	P09-20A	CTS 232 CH_5	
J05-10	P09-27A	RTS 232 CH_5	
J05-11	P11-20A	CTS 232 CH_6	
J05-12	P11-27A	RTS 232 CH_6	
J05-13	P13-20A	CTS 232 CH_7	
J05-14	P13-27A	RTS 232 CH_7	
J05-15	P15-20A	CTS 232 CH_8	
J05-16	P15-27A	RTS 232 CH_8	
J05-17	P17-20A	CTS 232 CH_9	
J05-18	P17-27A	RTS 232 CH_9	
J05-19	P19-20A	CTS 232 CH_0	
J05-20	P19-27A	RTS 232 CH_0	
J05-21	J05A-01	CTS 232 CH11	
J05-22	J05A-02	RTS 232 CH11	
J05-23	J05A-03	CTS 232 CH12	
J05-24	J05A-04	RTS 232 CH12	
J05-25	J05A-05	CTS 232 CH13	
J05-26	J05A-06	RTS 232 CH13	
J05-27	J05A-07	CTS 232 CH14	
J05-28	J05A-08	RTS 232 CH14	
J05-29	J05A-09	CTS 232 CH15	
J05-30	J05A-10	RTS 232 CH15	
J05-31	J05A-11	CTS 232 CH16	
J05-32	J05A-12	RTS 232 CH16	
J05-33	J05A-13	CTS 232 CH17	
J05-34	J05A-14	RTS 232 CH17	
J05-35	J05A-15	CTS 232 CH18	
J05-36	J05A-16	RTS 232 CH18	
J05-37	J05A-17	CTS 232 CH19	
J05-38	J05A-18	RTS 232 CH19	
J05-39	J05A-19	CTS 232 CH20	
J05-40	J05A-20	RTS 232 CH20	
J05-41	J05A-21	CTS 232 CH21	
J05-42	J05A-22	RTS 232 CH21	
J05-43	J05A-23	CTS 232 CH22	
J05-44	J05A-24	RTS 232 CH22	
J05-45	J05A-25	CTS 232 CH23	
J05-46	J05A-26	RTS 232 CH23	
J05-47	J05A-27	CTS 232 CH24	
J05-48	J05A-28	RTS 232 CH24	
J05-49	J05A-29	CTS 232 CH25	
J05-50	J05A-30	RTS 232 CH25	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
J05A-01	J05-21	CTS 232 CH11	
J05A-02	J05-22	RTS 232 CH11	
J05A-03	J05-23	CTS 232 CH12	
J05A-04	J05-24	RTS 232 CH12	
J05A-05	J05-25	CTS 232 CH13	
J05A-06	J05-26	RTS 232 CH13	
J05A-07	J05-27	CTS 232 CH14	
J05A-08	J05-28	RTS 232 CH14	
J05A-09	J05-29	CTS 232 CH15	
J05A-10	J05-30	RTS 232 CH15	
J05A-11	J05-31	CTS 232 CH16	
J05A-12	J05-32	RTS 232 CH16	
J05A-13	J05-33	CTS 232 CH17	
J05A-14	J05-34	RTS 232 CH17	
J05A-15	J05-35	CTS 232 CH18	
J05A-16	J05-36	RTS 232 CH18	
J05A-17	J05-37	CTS 232 CH19	
J05A-18	J05-38	RTS 232 CH19	
J05A-19	J05-39	CTS 232 CH20	
J05A-20	J05-40	RTS 232 CH20	
J05A-21	J05-41	CTS 232 CH21	
J05A-22	J05-42	RTS 232 CH21	
J05A-23	J05-43	CTS 232 CH22	
J05A-24	J05-44	RTS 232 CH22	
J05A-25	J05-45	CTS 232 CH23	
J05A-26	J05-46	RTS 232 CH23	
J05A-27	J05-47	CTS 232 CH24	
J05A-28	J05-48	RTS 232 CH24	
J05A-29	J05-49	CTS 232 CH25	
J05A-30	J05-50	RTS 232 CH25	
J06-01	P01-28A	MTA T_1	
J06-02	P01-28C	MTA R_1	
J06-03	P01-29A	MRA T_1	
J06-04	P01-29C	MRA R_1	
J06-05	P03-28A	MTA T_2	
J06-06	P03-28C	MTA R_2	
J06-07	P03-29A	MRA T_2	
J06-08	P03-29C	MRA R_2	
J06-09	P05-28A	MTA T_3	
J06-10	P05-28C	MTA R_3	
J06-11	P05-29A	MRA T_3	
J06-12	P05-29C	MRA R_3	
J06-13	P07-28A	MTA T_4	
J06-14	P07-28C	MTA R_4	
J06-15	P07-29A	MRA T_4	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
J06-16	P07-29C	MRA R_4	
J06-17	P09-28A	MTA T_5	
J06-18	P09-28C	MTA R_5	
J06-19	P09-29A	MRA T_5	
J06-20	P09-29C	MRA R_5	
J06-21	P11-28A	MTA T_6	
J06-22	P11-28C	MTA R_6	
J06-23	P11-29A	MRA T_6	
J06-24	P11-29C	MRA R_6	
J06-25	P13-28A	MTA T_7	
J06-26	P13-28C	MTA R_7	
J06-27	P13-29A	MRA T_7	
J06-28	P13-29C	MRA R_7	
J06-29	P15-28A	MTA T_8	
J06-30	P15-28C	MTA R_8	
J06-31	P15-29A	MRA T_8	
J06-32	P15-29C	MRA R_8	
J06-33	P17-28A	MTA T_9	
J06-34	P17-28C	MTA R_9	
J06-35	P17-29A	MRA T_9	
J06-36	P17-29C	MRA R_9	
J06-37	P19-28A	MTA T_0	
J06-38	P19-28C	MTA R_0	
J06-39	P19-29A	MRA T_0	
J06-40	P19-29C	MRA R_0	
P01-01A	P02-01A	D6 CH_1	
P01-01C	P02-01C	D7 CH_I	
P01-02A	P02-02A	D4 CH_1	
P01-02C	P02-02C	D5 CH_1	
P01-03A	P02-03A	D3 CH_1	
P01-03C	P02-03C	DGND A CH_1	
P01-04A	P02-04A	D1 CH_1	
P01-04C	P02-04C	D2 CH_1	
P01-05A	P02-05A	DGND C CH_1	
P01-05C	P02-05C	D0 CH_1	
P01-06A	P02-06A	RS2 CH_1	
P01-06C	P02-06C	RS3 CH_1	
P01-07A	P02-07A	RS0 CH_1	
P01-07C	P02-07C	RS1 CH_1	
P01-08A	@	+12V	
P01-08C	P02-08C	DGND B CH_1	
P01-09A	P02-09A	/CS2 CH_1	
P01-09C	P02-09C	/CS1 CH_1	
P01-10A	P02-10A	DGND D CH_1	
P01-10C	P02-10C	/CS0 CH_1	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P01-11A	P02-11A	/WRITE CH_1	
P01-11C		n/c	
P01-12A	P02-12A	-12V CH_1	
P01-12C	P02-12C	READ CH_1	
P01-13A	P02-13A	EYESYNC CH_1	
P01-13C	P02-13C	/P0R CH_1	
P01-14A	P02-14A	EYEY CH_1	
P01-14C	P02-14C	/EYECLK CH_1	
P01-15A	P02-15A	+12V CH_1	
P01-15C	P02-15C	EYEX CH_1	
P01-16A	P02-16A	/FRXD CH_1	
P01-16C	%	-12V	
P01-17A	#	+5V	
P01-17C		n/c	
P01-18A	#	+5V	
P01-18C	J04-02	RXMD CH_1	
P01-19A	J03-01	RXMC CH_1	
P01-19C	P02-19C	+5V A CH_1	
P01-20A	J05-01	CTS 232 CH_1	
P01-20C	J02-01	DCLKA_	See Note 2
P01-21A	P02-21A	/RDCLK CH_1	
P01-21C	J01-02	DDATA S_ CH_1	See Note 2
P01-22A	P02-22A	XTCLK CH_1	
P01-22C	P02-22C	RXD CH_1	
P01-23A	P02-23A	TDCLK CH_1	
P01-23C	P02-23C	+5V B CH_1	
P01-24A	P02-24A	/RLSD CH_1	
P01-24C	P02-24C	TXD CH_1	
P01-25A	P02-25A	/RTS CH_1	
P01-25C	P02-25C	/CTS CH_1	
P01-26A	P02-26A	/RBCLK CH_1	
P01-26C	P02-26C	+5V C CH_1	
P01-27A	J05-02	RTS 232 CH_1	
P01-27C	P02-27C	/TBCLK CH_1	
P01-28A	J06-01	MTA T_1	
P01-28C	J06-02	MTA R_1	
P01-29A	J06-03	MRA T_1	
P01-29C	J06-04	MRA R_1	
P01-30A	P02-30A	AUXIN CH_1	
P01-30C	P02-30C	+5V D CH_1	
P01-31A	P02-31A	TXA CH_1	
P01-31C	P02-31C	AGND A CH_1	
P01-32A	P02-32A	RXA CH_1	
P01-32C	P02-32C	AGND B CH_1	
P02-01A	P01-01A	D6 CH_1	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P02-01C	P01-01C	D7 CH_1	
P02-02A	P01-02A	D4 CH_1	
P02-02C	P01-02C	D5 CH_1	
P02-03A	P01-03A	D3 CH_1	
P02-03C	P01-03C	DGND A CH_1	
P02-04A	P01-04A	D1 CH_1	
P02-04C	P01-04C	D2 CH_1	
P02-05A	P01-05A	DGND C CH_1	
P02-05C	P01-05C	D0 CH_1	
P02-06A	P01-06A	RS2 CH_1	
P02-06C	P01-06C	RS3 CH_1	
P02-07A	P01-07A	RS0 CH_1	
P02-07C	P01-07C	RS1 CH_1	
P02-08A		n/c	
P02-08C	P01-08C	DGND B CH_1	
P02-09A	P01-09A	/CS2 CH_1	
P02-09C	P01-09C	/CS1 CH_1	
P02-10A	P01-10A	DGND D CH_1	
P02-10C	P01-10C	/CS0 CH~1	
P02-11A	P01-11A	/WRITE CH_1	
P02-11C		n/c	
P02-12A	P01-12A	-12V CH_1	
P02-12C	P01-12C	READ CH_1	
P02-13A	P01-13A	EYESYNC CH_1	
P02-13C	P01-13C	/P0R CH_1	
P02-14A	P01-14A	EYEY CH_1	
P02-14C	P01-14C	/EYECLK CH_1	
P02-15A	P01-15A	+12V CH_1	
P02-15C	P01-15C	EYEX CH 1	
P02-16A	P01-16A	/FRXD CH_1	
P02-16C		n/c	
P02-17A		n/c	
P02-17C		n/c	
P02-18A		n/c	
P02-18C		n/c	
P02-19A		n/c	
P02-19C	P01-19C	+5V A CH_1	
P02-20A		n/c	
P02-20C		n/c	
P02-21A	P01-21A	/RDCLK CH_1	
P02-21C		n/c	
P02-22A	P01-22A	XTCLK CH 1	
P02-22C	P01-22C	RXD CH_1	
P02-23A	P01-23A	TDCLK CH 1	
P02-23C	P01-23C	+5V B CH_1	

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MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
P02-24A	P01-24A	/RLSD CH 1	
P02-24C	P01-24C	TXD CH_1	
P02-25A	P01-25A	/RTS CH_1	
P02-25C	P01-25C	/CTS CH_1	
P02-26A	P01-26A	/RBCLK CH_1	
P02-26C	P01-26C	+5V C CH_1	
P02-27A		n/c	
P02-27C	P01-27C	/TBCLK CH_1	
P02-28A		n/c	
P02-28C		n/c	
P02-29A		n/c	
P02-29C		n/c	
P02-30A	P01-30A	AUXIN CH 1	
P02-30C	P01-30C	+5V D CH_1	
P02-31A	P01-31A	TXACH_1	
P02-31C	P01-31C	AGND A CH_1	
P02-32A	P01-32A	RXA CH_1	
P02-32C	P01-32C	AGND B CH_1	
P03-01A	P04-01A	D6 CH_2	
P03-01C	P04-01C	D7 CH_2	
P03-02A	P04-02A	D4 CH_2	
P03-02C	P04-02C	D5 CH_2	
P03-03A	P04-03A	D3 CH_2	
P03-03C	P04-03C	DGND A CH_2	
P03-04A	P04-04A	D1 CH_2	
P03-04C	P04-04C	D2 CH_2	
P03-05A	P04-05A	DGND C CH_2	
P03-05C	P04-05C	D0 CH_2	
P03-06A	P04-06A	RS2 CH_2	
P03-06C	P04-06C	RS3 CH_2	
P03-07A	P04-07A	RS0 CH_2	
P03-07C	P04-07C	RS1 CH_2	
P03-08A	@	+12V	
P03-08C	P04-08C	DGND B CH_2	
P03-09A	P04-09A	/CS2 CH_2	
P03-09C	P04-09C	/CS1 CH_2	
P03-10A	P04-10A	DGND D CH_2	
P03-10C	P04-10C	/CS0 CH_2	
P03-11A	P04-11A	/WRITE CH2	
P03-11C		n/c	
P03-12A	P04-12A	-12V CH_2	
P03-12C	P04-12C	READ CH_2	
P03-13A	P04-13A	EYESYNC CH_2	
P03-13C	P04-13C	/P0R CH_2	
P03-14A	P04-14A	EYEY CH_2	

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
P03-14C	P04-14C	/EYECLK CH_2	
P03-15A	P04-15A	+12V CH_2	
P03-15C	P04-15C	EYEX CH_2	
P03-16A	P04-16A	/FRXD CH_2	
P03-16C	%	-12V	
P03-17A	#	+5V	
P03-17C		n/c	
P03-18A	#	5V	
P03-18C	J04-04	RXMD CH_2	
P03-19A	J03-03	RXMC CH_2	
P03-19C	P04-19C	+5V A CH2	
P03-20A	J05-03	CTS 232 CH_2	
P03-20C	J02-03	DCLKB	See Note 2
P03-21A	P04-21A	/RDCLK CH_2	
P03-21C	J01-04	DDATA S_ CH_2	See Note 2
P03-22A	P04-22A	XTCLK CH_2	
P03-22C	P04-22C	RXD CH_2	
P03-23A	P04-23A	TDCLK CH_2	
P03-23C	P04-23C	+5V B CH_2	
P03-24A	P04-24A	/RLSD CH_2	
P03-24C	P04-24C	TXD CH_2	
P03-25A	P04-25A	/RTS CH_2	
P03-25C	P04-25C	/CTS CH_2	
P03-26A	P04-26A	/RBCLK CH_2	
P03-26C	P04-26C	+5V C CH_2	
P03-27A	J05-04	RTS 232 CH_2	
P03-27C	P04-27C	/TBCLK CH_2	
P03-28A	J06-05	MTA T_2	
P03-28C	J06-06	MTA R_2	
P03-29A	J06-07	MRA T_2	
P03-29C	J06-08	MRA R_2	
P03-30A	P04-30A	AUXIN CH_2	
P03-30C	P04-30C	+5V D CH_2	
P03-31A	P04-31A	TXA CH_2	
P03-31C	P04-31C	AGND A CH_2	
P03-32A	P04-32A	RXA CH 2	
P03-32C	P04-32C	AGND B CH_2	
P04-01A	P03-01A	D6 CH_2	
P04-01C	P03-01C	D7 CH_2	
P04-02A	P03-02A	D4 CH_2	
P04-02C	P03-02C	D5 CH_2	
P04-03A	P03-03A	D3 CH_2	
P04-03C	P03-03C	DGND A CH_2	
P04-04A	P03-04A	D1 CH_2	
P04-04C	P03-04C	D2 CH_2	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P04-05A	P03-05A	DGND C CH_2	
P04-05C	P03-05C	D0 CH_2	
P04-06A	P03-06A	RS2 CH_2	
P04-06C	P03-06C	RS3 CH_2	
P04-07A	P03-07A	RS0 CH_2	
P04-07C	P03-07C	RS1 CH_2	
P04-08A		n/c	
P04-08C	P03-08C	DGND B CH_2	
P04-09A	P03-09A	/CS2 CH_2	
P04-09C	P03-09C	/CS1 CH_2	
P04-10A	P03-10A	DGND D CH2	
P04-10C	P03-10C	/CS0 CH_2	
P04-11A	P03-11A	/WRITE CH_2	
P04-11C		n/c	
P04-12A	P03-12A	-12V CH_2	
P04-12C	P03-12C	READ CH_2	
P04-13A	P03-13A	EYESYNC CH_2	
P04-13C	P03-13C	/P0R CH_2	
P04-14A	P03-14A	EYEY CH_2	
P04-14C	P03-14C	/EYECLK CH_2	
P04-15A	P03-15A	+12V CH_2	
P04-15C	P03-15C	EYEX CH_2	
P04-16A	P03-16A	YFRXD CH 2	
P04-16C		n/c	
P04-17A		n/c	
P04-17C		n/c	
P04-18A		n/c	
P04-18C		n/c	
P04-19A		n/c	
P04-19C	P03-19C	+5V A CH_2	
P04-20A		n/c	
P04-20C		n/c	
P04-21A	P03-21A	/RDCLK CH_2	
P04-21C		n/c	
P04-22A	P03-22A	XTCLK CH_2	
P04-22C	P03-22C	RXD CH_2	
P04-23A	P03-23A	TDCLK CH_2	
P04-23C	P03-23C	+5V B CH_2	
P04-24A	P03-24A	/RLSD CH 2	
P04-24C	P03-24C	TXD CH_2	
P04-25A	P03-25A	/RTS CH_2	
P04-25C	P03-25C	/CTS CH_2	
P04-26A	P03-26A	/RBCLK CH_2	
P04-26C	P03-26C	+5V C CH_2	
P04-27A		n/c	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P04-27C	P03-27C	/TBCLK CH_2	
P04-28A		n/c	
P04-28C		n/c	
P04-29A		n/c	
P04-29C		n/c	
P04-30A	P03-30A	AUXIN CH_2	
P04-30C	P03-30C	+5V D CH_2	
P04-31A	P03-31A	TXA CH_2	
P04-31C	P03-31C	AGND A CH_2	
P04-32A	P03-32A	RXA CH_2	
P04-32C	P03-32C	AGND B CH_2	
P05-01A	P06-01A	D6 CH_3	
P05-01C	P06-01C	D7 CH_3	
P05-02A	P06-02A	D4 CH_3	
P05-02C	P06-02C	D5 CH_3	
P05-03A	P06-03A	D3 CH_3	
P05-03C	P06-03C	DGND A CH_3	
P05-04A	P06-04A	D1 CH_3	
P05-04C	P06-04C	D2 CH_3	
P05-05A	P06-05A	DGND C CH_3	
P05-05C	P06-05C	D0 CH_3	
P05-06A	P06-06A	RS2 CH 3	
P05-06C	P06-06C	RS3 CH_3	
P05-07A	P06-07A	RS0 CH 3	
P05-07C	P06-07C	RS1 CH_3	
P05-08A	@	+12V	
P05-08C	P06-08C	DGND B CH_3	
P05-09A	P06-09A	/CS2 CH_3	
P05-09C	P06-09C	/CS1 CH_3	
P05-10A	P06-10A	DGND D CH3	
P05-10C	P06-10C	/CS0 CH_3	
P05-11A	P06-11A	/WRITE CH3	
P05-11C		n/c	
P05-12A	P06-12A	-12V CH 3	
P05-12C	P06-12C	READ CH_3	
P05-13A	P06-13A	EYESYNC CH_3	
P05-13C	P06-13C	/P0R CH_3	
P05-14A	P06-14A	EYEY CH_3	
P05-14C	P06-14C	/EYECLK CH_3	
P05-15A	P06-15A	+12V CH_3	
P05-15C	P06-15C	EYEX CH_3	
P05-16A	P06-16A	/FRXD CH_ 3	
P05-16C	%	-12V	
P05-17A	#	+5V	
P05-17C		n/c	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P05-18A	#	+5V	
P05-18C	J04-06	RXMD CH_3	
P05-19A	J03-05	RXMC CH_3	
P05-19C	P06-19C	+5V A CH_3	
P05-20A	J05-05	CTS 232 CH_3	
P05-20C	J02-05	DCLKC_	See Note 2
P05-21A	P06-21A	/RDCLK CH_3	
P05-21C	J01-06	DDATA S_ CH_3	See Note 2
P05-22A	P06-22A	XTCLK CH 3	
P05-22C	P06-22C	RXD CH_3	
P05-23A	P06-23A	TDCLK CH 3	
P05-23C	P06-23C	+5V B CH_3	
P05-24A	P06-24A	/RLSD CH 3	
P05-24C	P06-24C	TXD CH_3	
P05-25A	P06-25A	/RTS CH_3	
P05-25C	P06-25C	/CTS CH_3	
P05-26A	P06-26A	/RBCLK CH_3	
P05-26C	P06-26C	+5V C CH_3	
P05-27A	J05-06	RTS 232 CH_3	
P05-27C	P06-27C	/TBCLK CH_3	
P05-28A	J06-09	MTA T_3	
P05-28C	J06-10	MTA R_3	
P05-29A	J06-11	MRA T_3	
P05-29C	J06-12	MRA R_3	
P05-30A	P06-30A	AUXIN CH 3	
P05-30C	P06-30C	+5V D CH_3	
P05-31A	P06-31A	TXA CH_3	
P05-31C	P06-31C	AGND A CH_3	
P05-32A	P06-32A	RXA CH_3	
P05-32C	P06-32C	AGND B CH_3	
P06-01A	P05-01A	D6CH_3	
P06-01C	P05-01C	D7CH_3	
P06-02A	P05-02A	D4 CH_3	
P06-02C	P05-02C	D5 CH_3	
P06-03A	P05-03A	D3 CH_3	
P06-03C	P05-03C	DGND A CH_3	
P06-04A	P05-04A	D1 CH_3	
P06-04C	P05-04C	D2 CH_3	
P06-05A	P05-05A	DGND C CH_3	
P06-05C	P05-05C	D0 CH_3	
P06-06A	P05-06A	RS2 CH_3	
P06-06C	P05-06C	RS3 CH 3	
P06-07A	P05-07A	RS0 CH_3	
P06-07C	P05-07C	RS1 CH 3	
P06-08A		n/c	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P06-08C	P05-08C	DGND B CH_3	
P06-09A	P05-09A	/CS2 CH_3	
P06-09C	P05-09C	/CS1 CH_3	
P06-10A	P05-10A	DGND D CH_3	
P06-10C	P05-10C	/CS0 CH_3	
P06-11A	P05-11A	/WRITE CH3	
P06-11C		n/c	
P06-12A	P05-12A	-12V CH_3	
P06-12C	P05-12C	READ CH_3	
P06-13A	P05-13A	EYESYNC CH_3	
P06-13C	P05-13C	/P0R CH_3	
P06-14A	P05-14A	EYEY CH_3	
P06-14C	P05-14C	/EYECLK CH_3	
P06-15A	P05-15A	+12V CH_3	
P06-15C	P05-15C	EYEX CH_3	
P06-16A	P05-16A	/FRXD CH_3	
P06-16C		n/c	
P06-17A		n/c	
P06-17C		n/c	
P06-18A		n/c	
P06-18C		n/c	
P06-19A		n/c	
P06-19C	P05-19C	+5V ACH_3	
P06-20A		n/c	
P06-20C		n/c	
P06-21A	P05-21A	/RDCLK CH_3	
P06-21C		n/c	
P06-22A	P05-22A	XTCLK CH_3	
P06-22C	P05-22C	RXD CH 3	
P06-23A	P05-23A	TDCLK CH_3	
P06-23C	P05-23C	+5V B CH_3	
P06-24A	P05-24A	/RESD CH_3	
P06-24C	P05-24C	TXD CH 3	
P06-25A	P05-25A	/RTS CH_3	
P06-25C	P05-25C	/CTS CH_3	
P06-26A	P05-26A	/RBCLK CH_3	
P06-26C	P05-26C	+5V C CH_3	
P06-27A		n/c	
P06-27C	P05-27C	/TBCLK CH_3	
P06-28A		n/c	
P06-28C		n/c	
P06-29A		n/c	
P06-29C		n/c	
P06-30A	P05-30A	AUXIN CH 3	
P06-30C	P05-30C	+5V D CH_3	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P06-31A	P05-31A	TXACH_3	
P06-31C	P05-31C	AGND A CH_3	
P06-32A	P05-32A	RXA CH_3	
P06-32C	P05-32C	AGND B CH_3	
P07-01A	P08-01A	D6 CH_4	
P07-01C	P08-01C	D7 CH_4	
P07-02A	P08-02A	D4 CH_4	
P07-02C	P08-02C	D5 CH_4	
P07-03A	P08-03A	D3CH_4	
P07-03C	P08-03C	DGND A CH_4	
P07-04A	P08-04A	D1 CH_4	
P07-04C	P08-04C	D2 CH_4	
P07-05A	P08-05A	DGND C CH_4	
P07-05C	P08-05C	D0 CH_4	
P07-06A	P08-06A	RS2 CH_4	
P07-06C	P08-06C	RS3 CH_4	
P07-07A	P08-07A	RS0CH_4	
P07-07C	P08-07C	RS1 CH_4	
P07-08A	@	+12V	
P07-08C	P08-08C	DGND B CH_4	
P07-09A	P08-09A	/CS2 CH_4	
P07-09C	P08-09C	/CS1 CH_4	
P07-10A	P08-10A	DGND D CH_4	
P07-10C	P08-10C	/CS0 CH_4	
P07-11A	P08-11A	/WRITE CH4	
P07-11C		n/c	
P07-12A	P08-12A	-12V CH_4	
P07-12C	P08-12C	READ CH_4	
P07-13A	P08-13A	EYESYNC CH_4	
P07-13C	P08-13C	/P0R CH_4	
P07-14A	P08-14A	EYEY CH_4	
P07-14C	P08-14C	/EYECLK CH_4	
P07-15A	P08-15A	+12V CH_4	
P07-15C	P08-15C	EYEX CH_4	
P07-16A	P08-16A	/FRXD CH_4	
P07-16C	%	-12V	
P07-17A	#	+5V	
P07-17C		n/c	
P07-18A	#	+5V	
P07-18C	J04-08	RXMD CH_4	
P07-19A	J03-07	RXMC CH_4	
P07-19C	P08-19C	+5V A CH4	
P07-20A	J05-07	CTS 232 CH_4	
P07-20C	J02-07	DCLKD	See Note 2
P07-21A	P08-21A	/RDCLK CH_4	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P07-21C	J01-08	DDATA S_CH_4	See Note 2
P07-22A	P08-22A	XTCLK CH_4	
P07-22C	P08-22C	RXD CH_4	
P07-23A	P08-23A	TDCLK CH_4	
P07-23C	P08-23C	+5V B CH_4	
P07-24A	P08-24A	/RLSD CH_4	
P07-24C	P08-24C	TXD CH_4	
P07-25A	P08-25A	/RTS CH_4	
P07-25C	P08-25C	/CTS CH_4	
P07-26A	P08-26A	/RBCLK CH_4	
P07-26C	P08-26C	+5V C CH_4	
P07-27A	J05-08	RTS 232 CH_4	
P07-27C	P08-27C	/TBCLK CH_4	
P07-28A	J06-13	MTA T_4	
P07-28C	J06-14	MTA R_4	
P07-29A	J06-15	MRA T_4	
P07-29C	J06-16	MRA R_4	
P07-30A	P08-30A	AUXIN CH_4	
P07-30C	P08-30C	+5V D CH_4	
P07-31A	P08-31A	TXA CH 4	
P07-31C	P08-31C	AGND A CH_4	
P07-32A	P08-32A	RXA CH 4	
P07-32C	P08-32C	AGND B CH_4	
P08-01A	P07-01A	D6 CH_4	
P08-01C	P07-01C	D7 CH_4	
P08-02A	P07-02A	D4 CH_4	
P08-02C	P07-02C	DS CH_4	
P08-03A	P07-03A	D3 CH_4	
P08-03C	P07-03C	DGND A CH_4	
P08-04A	P07-04A	D1 CH_4	
P08-04C	P07-04C	D2 CH_4	
P08-05A	P07-05A	DGND C CH_4	
P08-05C	P07-05C	D0 CH_4	
P08-06A	P07-06A	RS2 CH_4	
P08-06C	P07-06C	RS3 CH_4	
P08-07A	P07-07A	RS0 CH_4	
P08-07C	P07-07C	RS1 CH_4	
P08-08A		n/c	
P08-08C	P07-08C	DGND B CH_4	
P08-09A	P07-09A	/CS2 CH_4	
P08-09C	P07-09C	/CS1 CH_4	
P08-10A	P07-10A	DGND D CH4	
P08-10C	P07-10C	/CS0 CH_4	
P08-11A	P07-11A	/WRITE CH4	
P08-11C		n/c	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P08-12A	P07-12A	-12V CH_4	
P08-12C	P07-12C	READ CH_4	
P08-13A	P07-13A	EYESYNC CH_4	
P08-13C	P07-13C	/P0R CHA	
P08-14A	P07-14A	EYEY CH_4	
P08-14C	P07-14C	/EYECLK CH_4	
P08-15A	P07-15A	+12V CH_4	
P08-15C	P07-15C	EYEX CH_4	
P08-16A	P07-16A	/FRXD CHA	
P08-16C		n/c	
P08-17A		n/c	
P08-17C		n/c	
P08-18A		n/c	
P08-18C		n/c	
P08-19A		n/c	
P08-19C	P07-19C	+5V A CH_4	
P08-20A		n/c	
P08-20C		n/c	
P08-21A	P07-21A	/RDCLK CH_4	
P08-21C		n/c	
P08-22A	P07-22A	XTCLK CH_4	
P08-22C	P07-22C	RXD CH_4	
P08-23A	P07-23A	TDCLK CH_4	
P08-23C	P07-23C	+5V B CH_4	
P08-24A	P07-24A	/RLSD CH_4	
P08-24C	P07-24C	TXD CH_4	
P08-25A	P07-25A	/RTS CHA	
P08-25C	P07-25C	/ CTS CHA	
P08-26A	P07-26A	/RBCLK CH_4	
P08-26C	P07-26C	+5V C CH_4	
P08-27A		n/c	
P08-27C	P07-27C	/TBCLK CH_4	
P08-28A		n/c	
P08-28C		n/c	
P08-29A		n/c	
P08-29C		n/c	
P08-30A	P07-30A	AUXIN CH 4	
P08-30C	P07-30C	+5V D CH_4	
P08-31A	P07-31A	TXACH_4	
P08-31C	P07-31C	AGND A CH_4	
P08-32A	P07-32A	RXA CH_4	
P08-32C	P07-32C	AGND B CH_4	
P09-01A	P10-01A	D6 CH_5	
P09-01C	P10-01C	D7 CH_5	
P09-02A	P10-02A	D4 CH_5	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P09-02C	P10-02C	D5 CH_5	
P09-03A	P10-03A	D3 CH_5	
P09-03C	P10-03C	DGND A CH_5	
P09-04A	P10-04A	D1 CH_5	
P09-04C	P10-04C	D2 CH_5	
P09-05A	P1O-05A	DGND C CH_5	
P09-05C	P10-05C	D1 CH_5	
P09-06A	P10-06A	RS2 CH_5	
P09-06C	P1O-06C	RS3 CH 5	
P09-07A	P10-07A	RS0 CH_5	
P09-07C	P10-07C	RS1 CH 5	
P09-08A		+12V	
P09-08C	P10-08C	DGND B CH_5	
P09-09A	P10-09A	/ CS2 CH_5	
P09-09C	P10-09C	/ CS1 CH_5	
P09-10A	P10-10A	DGND DC11_5	
P09-10C	P10-10C	/ CS1 CH_5	
P09-11A	P10-11A	/WRITE CH_5	
P09-11C		n/c	
P09-12A	P10-12A	-12V CH_5	
P09-12C	P10-12C	READ CH_5	
P09-13A	P10-13A	EYESYNC CH_5	
P09-13C	P10-13C	/P0R CH_5	
P09-14A	P10-14A	EYEY CH_5	
P09-14C	P10-14C	/EYECLK CH_5	
P09-15A	P10-15A	+12V CH_5	
P09-15C	P10-15C	EYEX CH_5	
P09-16A	P10-16A	/FRXD CH_5	
P09-16C	%	-12V	
P09-17A	#	+5V	
P09-17C		n/c	
P09-18A	#	+5V	
P09-18C	J04-10	RXMD CH_5	
P09-19A	J03-09	RXMC CH_5	
P09-19C	P10-19C	+5V A CH_5	
P09-20A	J05-09	CTS 232 CH_5	
P09-20C	J02-09	DCLKE_	See Note 2
P09-21A	P10-21A	/RDCLK CH_5	
P09-21C	J01-10	DDATA S_ CH_5	See Note 2
P09-22A	P10-22A	XTCLK CH_5	
P09-22C	P10-22C	RXD CH_5	
P09-23A	P10-23A	TDCLK CH_5	
P09-23C	P10-23C	+5V B CH_5	
P09-24A	P10-24A	/RLSD CH5	
P09-24C	P10-24C	TXD CH_5	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P09-25A	P10-25A	/RTS CH_5	
P09-25C	P10-25C	/CTS CH_5	
P09-26A	P10-26A	/RBCLK CH_5	
P09-26C	P10-26C	+5V C CH_5	
P09-27A	J05-10	RTS 232 CH_5	
P09-27C	P10-27C	/TBCLK CH_5	
P09-28A	J06-17	MTA T_5	
P09-28C	J06-18	MTA R_5	
P09-29A	J06-19	MRA T_5	
P09-29C	J06-20	MRA R_5	
P09-30A	P10-30A	AUXIN CH_5	
P09-30C	P10-30C	+5V D CH_5	
P09-31A	P10-31A	TXA CH_5	
P09-31C	P10-31C	AGND A CH_5	
P09-32A	P10-32A	RXA CH_5	
P09-32C	P10-32C	AGND B CH_5	
P10-01A	P09-01A	D6 CH_5	
P10-01C	P09-01C	D7 CH_5	
P10-02A	P09-02A	D4 CH_5	
P10-02C	P09-02C	D5 CH_5	
P10-03A	P09-03A	D3 CH_5	
P10-03C	P09-03C	DGND A CH_5	
P10-04A	P09-04A	D1 CH_5	
P10-04C	P09-04C	D2 CH_5	
P10-05A	P09-05A	DGND C CH_5	
P10-05C	P09-05C	D0 CH_5	
P10-06A	P09-06A	RS2 CH_5	
P10-06C	P09-06C	RS3 CH_5	
P10-07A	P09-07A	RS0 CH_5	
P10-07C	P09-07C	RS1 CH_5	
P10-08A		n/c	
P10-08C	P09-08C	DGND B CH_5	
P10-09A	P09-09A	/CS2 CH_5	
P10-09C	P09-09C	/CS1 CH_5	
P10-10A	P09-10A	DGND D CH_5	
P10-10C	P09-10C	/CS1 CH_5	
P10-11A	P09-11A	/WRITE CH_5	
P10-11C		n/c	
P10-12A	P09-12A	-12V CH_5	
P10-12C	P09-12C	READ CH_5	
P10-13A	P09-13A	EYESYNC CH_5	
P10-13C	P09-13C	/P0R CH_5	
P10-14A	P09-14A	EYEY CH_5	
P10-14C	P09-14C	/EYECLK CH_5	
P10-15A	P09-15A	+12V CH_5	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P10-15C	P09-15C	EYEX CH_5	
P10-16A	P09-16A	/FRXD CH_5	
P10-16C		n/c	
P10-17A		n/c	
P10-17C		n/c	
P10-18A		n/c	
P10-18C		n/c	
P10-19A		n/c	
P10-19C	P09-19C	+5V A CH_5	
P10-20A		n/c	
P10-20C		n/c	
P10-21A	P09-21A	/RDCLK CH_5	
P10-21C		n/c	
P10-22A	P09-22A	XTCLK CH_5	
P10-22C	P09-22C	RXD CH_5	
P10-23A	P09-23A	TDCLK CH_5	
P10-23C	P09-23C	+5V B CH_5	
P10-24A	P09-24A	/RLSD CH_5	
P10-24C	P09-24C	TXD CH_5	
P10-25A	P09-25A	/RTS CH_5	
P10-25C	P09-25C	/ CTS CH_5	
P10-26A	P09-26A	/RBCLK CH_5	
P10-26C	P09-26C	+5V C CH_5	
P10-27A		n/c	
P10-27C	P09-27C	/TBCLK CH_5	
P10-28A		n/c	
P10-28C		n/c	
P10-29A		n/c	
P10-29C		n/c	
P10-30A	P09-30A	AUXIN CH_5	
P10-30C	P09-30C	+5V D CH_5	
P10-31A	P09-31A	TXA CH_5	
P10-31C	P09-31C	AGND A CH_5	
P10-32A	P09-32A	RXA CH_5	
P10-32C	P09-32C	AGND B CH_5	
P11-01A	P12-01A	D6 CH_6	
P11-01C	P12-01C	D7 CH_6	
P11-02A	P12-02A	D4 CH_6	
P11-02C	P12-02C	D5 CH_6	
P11-03A	P12-03A	D3 CH_6	
P11-03C	P12-03C	DGND A CH_6	
P11-04A	P12-04A	D1 CH_6	
P11-04C	P12-04C	D2 CH_6	
P11-05A	P12-05A	DGND C CH6	
P11-05C	P12-05C	D0 CH_6	

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MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
P11-06A	P12-06A	RS2 CH_6	
P11-06C	P12-06C	RS3 CH_6	
P11-07A	P12-07A	RS0 CH_6	
P11-07C	P12-07C	RS1 CH_6	
P11-08A		+12V	
P11-08C	P12-08C	DGND B CH_6	
P11-09A	P12-09A	/CS2 CH_6	
P11-09C	P12-09C	/CS1 CH_6	
P11-10A	P12-10A	DGND D CH_6	
P11-10C	P12-10C	/CS0 CH_6	
P11-11A	P12-11A	/WRITE CH_6	
P11-11C		n/c	
P11-12A	P12-12A	-12V CH_6	
P11-12C	P12-12C	READ CH_6	
P11-13A	P12-13A	EYSYNC CH_6	
P11-13C	P12-13C	/P0R CH_6	
P11-14A	P12-14A	EYEY CH_6	
P11-14C	P12-14C	/EYECLK CH_6	
P11-15A	P12-15A	+12V CH_6	
P11-15C	P12-15C	EYEX CH6	
P11-16A	P12-16A	/FRXD CH~6	
P11-16C	%	-12V	
P11-17A	#	+5V	
P11-17C		n/c	
P11-18A	#	+5V	
P11-18C	J04-12	RXMD CH_6	
P11-19A	J03-11	RXMC CH_6	
P11-19C	P12-19C	+5V A CH_6	
P11-20A	J05-11	CTS 232 CH_6	
P11-20C	J02-11	DCLKF	See Note 2
P11-21A	P12-21A	/RDCLK CH_6	
P11-21C	J01-12	DDATA S CH_6	See Note 2
P11-22A	P12-22A	XTCLK CH_6	
P11-22C	P12-22C	RXD CH_6	
P11-23A	P12-23A	TDCLK CH_6	
P11-23C	P12-23C	+5V BCH_6	
P11-24A	P12-24A	/RLSD CH_6	
P11-24C	P12-24C	TXD CH_6	
P11-25A	P12-25A	/RTS CH_6	
P11-25C	P12-25C	/CTS CH_6	
P11-26A	P12-26A	/RBCLK CH_6	
P11-26C	P12-26C	+5V C CH_6	
P11-27A	J05-12	RTS 232 CH_6	
P11-27C	P12-27C	/TBCLK CH_6	
P11-28A	J06-21	MTA T_6	

MODEM SHELF			
FROM	**TO**	**FUNCTION**	**PUNCH BLOCK**
P11-28C	J06-22	MTA R_6	
P11-29A	J06-23	MRA T_6	
P11-29C	J06-24	MRA R_6	
P11-30A	P12-30A	AUXIN CH_6	
P11-30C	P12-30C	+5V D CH_6	
P11-31A	P12-31A	TXA CH_6	
P11-31C	P12-31C	AGND A CH_6	
P11-32A	P12-32A	RXA CH_6	
P11-32C	P12-32C	AGND B CH6	
P12-01A	P11-01A	D6 CH_6	
P12-01C	P11-01C	D7 CH_6	
P12-02A	P11-02A	D4 CH_6	
P12-02C	P11-02C	DS CH_6	
P12-03A	P11-03A	D3CH_6	
P12-03C	P11-03C	DGND A CH_6	
P12-04A	P11-04A	D1 CH_6	
P12-04C	P11-04C	D2CH_6	
P12-05A	P11-05A	DGND C CH6	
P12-05C	P11-05C	D0CH_6	
P12-06A	P11-06A	RS2 CH_6	
P12-06C	P11-06C	RS3 CH_6	
P12-07A	P11-07A	RS0 CH_6	
P12-07C	P11-07C	RS1 CH 6	
P12-08A		n/c	
P12-08C	P11-08C	DGND B CH6	
P12-09A	P11-09A	/CS2 CH_6	
P12-09C	P11-09C	/CS1 CH_6	
P12-10A	P11-10A	DGND D CH_6	
P12-10C	P11-10C	/CS0 CH_6	
P12-11A	P11-11A	/WRITE CH_6	
P12-11C		n/c	
P12-12A	P11-12A	-12V CH_6	
P12-12C	P11-12C	READ CH_6	
P12-13A	P11-13A	EYSYNC CH_6	
P12-13C	P11-13C	/P0R CH_6	
P12-14A	P11-14A	EYEY CH_6	
P12-14C	P11-14C	/EYECLK CH_6	
P12-15A	P11-15A	+12V CH_6	
P12-15C	P11-15C	EYEX CH_6	
P12-16A	P11-16A	/FRXD CH_6	
P12-16C		n/c	
P12-17A		n/c	
P12-17C		n/c	
P12-18A		n/c	
P12-18C		n/c	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P12-19A		n/c	
P12-19C	P11-19C	+5V ACH_6	
P12-20A		n/c	
P12-20C		n/c	
P12-21A	P11-21A	/RDCLK CH6	
P12-21C		n/c	
P12-22A	P11-22A	XTCLK CH6	
P12-22C	P11-22C	RXD CH_6	
P12-23A	P11-23A	TDCLK CH6	
P12-23C	P11-23C	+5V B CH_6	
P12-24A	P11-24A	/RLSD CH_6	
P12-24C	P11-24C	TXD CH_6	
P12-25A	P11-25A	/RTS CH_6	
P12-25C	P11-25C	/CTS CH_6	
P12-26A	P11-26A	/RBCLK CH6	
P12-26C	P11-26C	+5V C CH_6	
P12-27A		n/c	
P12-27C	P11-27C	/TBCLK CH_6	
P12-28A		n/c	
P12-28C		n/c	
P12-29A		n/c	
P12-29C		n/c	
P12-30A	P11-30A	AUXIN CH_6	
P12-30C	P11-30C	+5V D CH_6	
P12-31A	P11-31A	TXA CH_6	
P12-31C	P11-31C	AGND A CH_6	
P12-32A	P11-32A	RXA CH_6	
P12-32C	P11-32C	AGND B CH_6	
P13-01A	P14-01A	D6 CH_7	
P13-01C	P14-01C	D7 CH_7	
P13-02A	P14-02A	D4 CH_7	
P13-02C	P14-02C	D5 CH_7	
P13-03A	P14-03A	D3 CH_7	
P13-03C	P14-03C	DGND A CH_7	
P13-04A	P14-04A	D1 CH_7	
P13-04C	P14-04C	D2 CH_7	
P13-05A	P14-05A	DGND C CH_7	
P13-05C	P14-05C	D0 CH_7	
P13-06A	P14-06A	RS2 CH_7	
P13-06C	P14-06C	RS3 CH_7	
P13-07A	P14-07A	RS0 CH_7	
P13-07C	P14-07C	RS1 CH 7	
P13-08A	@	+12V	
P13-08C	P14-08C	DGND B CH_7	
P13-09A	P14-09A	/ CS2 CH_7	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P13-09C	P14-09C	/CS1 CH_7	
P13-10A	P14-10A	DGND D CH_7	
P13-10C	P14-10C	/CS0 CH_7	
P13-11A	P14-11A	/WRITE CH_7	
P13-11C		n/c	
P13-12A	P14-12A	-12V CH_7	
P13-12C	P14-12C	READ CH_7	
P13-13A	P14-13A	EYSYNC CH_7	
P13-13C	P14-13C	/P0R CH_7	
P13-14A	P14-14A	EYEY CH_7	
P13-14C	P14-14C	/EYECLK CH_7	
P13-15A	P14-15A	+12V CH_7	
P13-15C	P14-15C	EYEX CH_7	
P13-16A	P14-16A	/FRXD CH_7	
P13-16C	%	-12V	
P13-17A	#	+5V	
P13-17C		n/c	
P13-18A	#	+5V	
P13-18C	J04-14	RXMD CH_7	
P13-19A	J03-13	RXMC CH_7	
P13-19C	P14-19C	+5V A CH_7	
P13-20A	J05-13	CTS 232 CH_7	
P13-20C	J02-13	DCLKG_	See Note 2
P13-21A	P14-21A	/RDCLK CH_7	
P13-21C	J01-14	DDATA S_ CH_7	See Note 2
P13-22A	P14-22A	XTCLK CH_7	
P13-22C	P14-22C	RXD CH_7	
P13-23A	P14-23A	TDCLK CH_7	
P13-23C	P14-23C	+5V BCH_7	
P13-24A	P14-24A	/RLSD CH_7	
P13-24C	P14-24C	TXD CH_7	
P13-25A	P14-25A	/RTS CH_7	
P13-25C	P14-25C	/CTS CH_7	
P13-26A	P14-26A	/RBCLK CH_7	
P13-26C	P14-26C	+5V C CH_7	
P13-27A	J05-14	RTS 232 CH_7	
P13-27C	P14-27C	/TBCLK CH_7	
P13-28A	J06-25	MTA T_ 7	
P13-28C	J06-26	MTA R_ 7	
P13-29A	J06-27	MRA T_ 7	
P13-29C	J06-28	MRA R_ 7	
P13-30A	P14-30A	AUXIN CH_7	
P13-30C	P14-30C	+5V D CH_7	
P13-31A	P14-31A	TXA CH_7	
P13-31C	P14-31C	AGND A CH_7	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P13-32A	P14-32A	RXACH_7	
P13-32C	P14-32C	AGND B CH_7	
P14-01A	P13-01A	D6 CH_7	
P14-01C	P13-01C	D7 CH_7	
P14-02A	P13-02A	D4 CH_7	
P14-02C	P13-02C	D5 CH_7	
P14-03A	P13-03A	D3 CH_7	
P14-03C	P13-03C	DGND A CH_7	
P14-04A	P13-04A	D1 CH_7	
P14-04C	P13-04C	D2 CH_7	
P14-05A	P13-05A	DGND C CH_7	
P14-05C	P13-05C	D0 CH_7	
P14-06A	P13-06A	RS2 CH_7	
P14-06C	P13-06C	RS3 CH_7	
P14-07A	P13-07A	RS0 CH_7	
P14-07C	P13-07C	RS1 CH_7	
P14-08A		n/c	
P14-08C	P13-08C	DGND B CH_7	
P14-09A	P13-09A	/CS2 CH_7	
P14-09C	P13-09C	/CS1 CH_7	
P14-10A	P13-10A	DGND D CH_7	
P14-10C	P13-10C	/CS0 CH_7	
P14-11A	P13-11A	/WRITE CH_7	
P14-11C		n/c	
P14-12A	P13-12A	-12V CH_7	
P14-12C	P13-12C	READ CH_7	
P14-13A	P13-13A	EYESYNC CH_7	
P14-13C	P13-13C	/P0R CH_7	
P14-14A	P13-14A	EYEY CH_7	
P14-14C	P13-14C	/EYECLK CH_7	
P14-15A	P13-15A	+12V CH_7	
P14-15C	P13-15C	EYEX CH_7	
P14-16A	P13-16A	/FRXD CH_7	
P14-16C		n/c	
P14-17A		n/c	
P14-17C		n/c	
P14-18A		n/c	
P14-18C		n/c	
P14-19A		n/c	
P14-19C	P13-19C	+5V A CH_7	
P14-20A		n/c	
P14-20C		n/c	
P14-21A	P13-21A	/RDCLK CH_7	
P14-21C		n/c	
P14-22A	P13-22A	XTCLK CH_7	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P14-22C	P13-22C	RXD CH_7	
P14-23A	P13-23A	TDCLK CH_7	
P14-23C	P13-23C	+5V BCH_7	
P14-24A	P13-24A	/RESD CH_7	
P14-24C	P13-24C	TXD CH_7	
P14-25A	P13-25A	/RTS CH_7	
P14-25C	P13-25C	/ CTS CH_7	
P14-26A	P13-26A	/RBCLK CH_7	
P14-26C	P13-26C	+5V C CH_7	
P14-27A		n/c	
P14-27C	P13-27C	/TBCLK CH_7	
P14-28A		n/c	
P14-28C		n/c	
P14-29A		n/c	
P14-29C		n/c	
P14-30A	P13-30A	AUXIN CH_7	
P14-30C	P13-30C	+5V D CH_7	
P14-31A	P13-31A	TXA CH_7	
P14-31C	P13-31C	AGND A CH_7	
P14-32A	P13-32A	RXA CH_7	
P14-32C	P13-32C	AGND B CH_7	
P15-01A	P16-01A	D6 CH_8	
P15-01C	P16-01C	D7 CH_8	
P15-02A	P16-02A	D4 CH_8	
P15-02C	P16-02C	D5 CH_8	
P15-03A	P16-03A	D3 CH_8	
P15-03C	P16-03C	DGND A CH_8	
P15-04A	P16-04A	D1 CH_8	
P15-04C	P16-04C	D2 CH_8	
P15-05A	P16-05A	DGND C CH_8	
P15-05C	P16-05C	D0 CH_8	
P15-06A	P16-06A	RS2 CH_8	
P15-06C	P16-06C	RS3 CH 8	
P15-07A	P16-07A	RS0 CH_8	
P15-07C	P16-07C	RS1 CH 8	
P15-08A		+12V	
P15-08C	P16-08C	DGND B CH_8	
P15-09A	P16-09A	/ CS2 CH_8	
P15-09C	P16-09C	/ CS1 CH_8	
P15-10A	P16-10A	DGND D CH_8	
P15-10C	P16-10C	/ CS0 CH_8	
P15-11A	P16-11A	/WRITE CH_8	
P15-11C		n/c	
P15-12A	P16-12A	-12V CH_8	
P15-12C	P16-12C	READ CH_8	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P15-13A	P16-13A	EYSYNC CH_8	
P15-13C	P16-13C	/P0R CH_8	
P15-14A	P16-14A	EYEY CH_8	
P15-14C	P16-14C	/EYECLK CH_8	
P15-15A	P16-15A	+12V CH_8	
P15-15C	P16-15C	EYEX CH_8	
P15-16A	P16-16A	/FRXD CH_8	
P15-16C	%	-12V	
P15-17A	#	+5V	
P15-17C		n/c	
P15-18A	#	+5V	
P15-18C	J04-16	RXMD CH_8	
P15-19A	J03-15	RXMC CH 8	
P15-19C	P16-19C	+5V A CH8	
P15-20A	J05-15	CTS 232 CH_8	
P15-20C	J02-15	DCLKH_	See Note 2
P15-21A	P16-21A	/RDCLK CH_8	
P15-21C	J01-16	DDATA S_CH_8	See Note 2
P15-22A	P16-22A	XTCLK CH_8	
P15-22C	P16-22C	RXD CH_8	
P15-23A	P16-23A	TDCLK CH_8	
P15-23C	P16-23C	+5V BCH_8	
P15-24A	P16-24A	/RLSD CH_8	
P15-24C	P16-24C	TXD CH_8	
P15-25A	P16-25A	/RTS CH_8	
P15-25C	P16-25C	/CTS CH_8	
P15-26A	P16-26A	/RBCLK CH_8	
P15-26C	P16-26C	+5V C CH_8	
P15-27A	J05-16	RTS 232 CH_8	
P15-27C	P16-27C	/TBCLK CH_8	
P15-28A	J06-29	MTA T_8	
P15-28C	J06-30	MTA R_8	
P15-29A	J06-31	MRA T_8	
P15-29C	J06-32	MRA R_8	
P15-30A	P16-30A	AUXIN CH_8	
P15-30C	P16-30C	+5V D CH_8	
P15-31A	P16-31A	TXACH_8	
P15-31C	P16-31C	AGND A CH_8	
P15-32A	P16-32A	RXA CH_8	
P15-32C	P16-32C	AGND B CH_8	
P16-01A	P15-01A	D6 CH_8	
P16-01C	P15-01C	D7 CH_8	
P16-02A	P15-02A	D4 CH_8	
P16-02C	P15-02C	D5 CH_8	
P16-03A	P15-03A	D3 CH_8	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P16-03C	P15-03C	DGND A CH_8	
P16-04A	P15-04A	D1 CH_8	
P16-04C	P15-04C	D2 CH_8	
P16-05A	P15-05A	DGND C CH8	
P16-05C	P15-05C	D0 CH_8	
P16-06A	P15-06A	RS2 CH_8	
P16-06C	P15-06C	RS3 CH 8	
P16-07A	P15-07A	RS0 CH_8	
P16-07C	P15-07C	RS1 CH 8	
P16-08A		n/c	
P16-08C	P15-08C	DGND B CH_8	
P16-09A	P15-09A	/CS2 CH_8	
P16-09C	P15-09C	/CS1 CH_8	
P16-10A	P15-10A	DGND D CH_8	
P16-10C	P15-10C	/CS0 CH_8	
P16-11A	P15-11A	/WRITE CH_8	
P16-11C		n/c	
P16-12A	P15-12A	-12V CH_8	
P16-12C	P15-12C	READ CH_8	
P16-13A	P15-13A	EYSYNC CH_8	
P16-13C	P15-13C	/P0R CH_8	
P16-14A	P15-14A	EYEY CH_8	
P16-14C	P15-14C	/EYECLKC11_8	
P16-15A	P15-15A	+12V CH_8	
P16-15c	P15-15c	EYEX CH_8	
P16-16A	P15-16A	/FRXD CH_8	
P16-16C		n/c	
P16-17A		n/c	
P16-17C		n/c	
P16-18A		n/c	
P16-18C		n/c	
P16-19A		n/c	
P16-19C	P15-19C	+5V ACH_8	
P16-20A		n/c	
P16-20C		n/c	
P16-21A	P15-21A	/RDCLK CH_8	
P16-21C		n/c	
P16-22A	P15-22A	XTCLK CH_8	
P16-22C	P15-22C	RXD CH_8	
P16-23A	P15-23A	TDCLK CH_8	
P16-23C	P15-23C	+5V B CH_8	
P16-24A	P15-24A	/RLSD CH_8	
P16-24C	P15-24C	TXD CH_8	
P16-25A	P15-25A	/RTS CH_8	
P16-25C	P15-25C	/CTS CH_8	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P16-26A	P15-26A	/RBCLK CH_8	
P16-26C	P15-26C	+5V C CH_8	
P16-27A		n/c	
P16-27C	P15-27C	/TBCLK CH_8	
P16-28A		n/c	
P16-28C		n/c	
P16-29A		n/c	
P16-29C		n/c	
P16-30A	P15-30A	AUXIN CH_8	
P16-30C	P15-30C	+5V D CH_8	
P16-31A	P15-31A	TXACH_8	
P16-31C	P15-31C	AGND A CH_8	
P16-32A	P15-32A	RXA CH_8	
P16-32C	P15-32C	AGND B CH_8	
P17-01A	P18-01A	D6 CH_9	
P17-01C	P18-01C	D7 CH_9	
P17-02A	P18-02A	D4 CH_9	
P17-02C	P18-02C	D5 CH_9	
P17-03A	P18-03A	D3 CH_9	
P17-03C	P18-03C	DGND A CH_9	
P17-04A	P18-04A	D1 CH_9	
P17-04C	P18-04C	D2 CH_9	
P17-05A	P18-05A	DGND C CH9	
P17-05C	P18-05C	D0CH_9	
P17-06A	P18-06A	RS2 CH_9	
P17-06C	P18-06C	RS3 CH_9	
P17-07A	P18-07A	RSO CH_9	
P17-07C	P18-07C	RS1CH_9	
P17-08A		+12V	
P17-08C	P18-08C	DGND B CH_9	
P17-09A	P18-09A	/CS2 CH_9	
P17-09C	P18-09C	/CS1 CH_9	
P17-10A	P18-10A	DGND D CH_9	
P17-10C	P18-10C	/CS0 CH_9	
P17-11A	P18-11A	/WRITE CH_9	
P17-11C		n/c	
P17-12A	P18-12A	-12V CH_9	
P17-12C	P18-12C	READ CH_9	
P17-13A	P18-13A	EYESYNC CH_9	
P17-13C	P18-13C	/P0R CH_9	
P17-14A	P18-14A	EYEY CH_9	
P17-14C	P18-14C	/EYECLK CH_9	
P17-15A	P18-15A	+12V CH_9	
P17-15C	P18-15c	EYEX CH_9	
P17-16A	P18-16A	/FRXD CH_9	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P17-16C		-12V	
P17-17A	*	+5V	
P17-17C		n/c	
P17-18A		+5V	
P17-18C	J04-18	RXMD CH_9	
P17-19A	J03-17	RXMC CH_9	
P17-19C	P18-19C	+5V ACH_9	
P17-20A	J05-17	CTS 232 CH_9	
P17-20C	J02-17	DCLM_	See Note 2
P17-21A	P18-21A	/RDCLK CH_9	
P17-21C	J01-18	DDATA S_ CH_9	See Note 2
P17-22A	P18-22A	XTCLK CH_9	
P17-22C	P18-22C	RXD CH_9	
P17-23A	P18-23A	TDCLK CH_9	
P17-23C	P18-23C	+5V B CR_9	
P17-24A	P18-24A	/RLSD CH_9	
P17-24C	P18-24C	TXD CH_9	
P17-25A	P18-25A	/RTS CH_9	
P17-25C	P18-25C	/CTS CH_9	
P17-26A	P18-26A	/RBCLK CH_9	
P17-26C	P18-26C	+5V C CH_9	
P17-27A	J05-18	RTS 232 CH_9	
P17-27C	P18-27C	/TBCLK CH_9	
P17-28A	J06-33	MTA T_9	
P17-28C	J06-34	MTA R_9	
P17-29A	J06-35	MRA T_9	
P17-29C	J06-36	MRA R_9	
P17-30A	P18-30A	AUXIN CH_9	
P17-30C	P18-30C	+5V D CH_9	
P17-31A	P18-31A	TXA CH_9	
P17-31C	P18-31C	AGND A CH_9	
P17-32A	P18-32A	RXACH_9	
P17-32C	P18-32C	AGND B CH_9	
P18-01A	P17-01A	D6 CH_9	
P18-01C	P17-01C	D7 CH_9	
P18-02A	P17-02A	D4 CH_9	
P18-02C	P17-02C	D5 CH_9	
P18-03A	P17-03A	D3 CH_9	
P18-03C	P17-03C	DGND A CH_9	
P18-04A	P17-04A	D1 CH_9	
P18-04C	P17-04C	D2 CH_9	
P18-05A	P17-05A	DGND C CH_9	
P18-05C	P17-05C	D0 CH_9	
P18-06A	P17-06A	RS2 CH_9	
P18-06C	P17-06C	RS3 CH_9	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P18-07A	P17-07A	RS0 CH_9	
P18-07C	P17-07C	RS1 CH_9	
P18-08A		n/c	
P18-08C	P17-08C	DGND B CH_9	
P18-09A	P17-09A	/CS2 CH_9	
P18-09C	P17-09C	/CS1 CH_9	
P18-10A	P17-10A	DGND D CH_9	
P18-10C	P17-10C	/CS0 CH_9	
P18-11A	P17-11A	/WRITE CH_9	
P18-11C		n/c	
P18-12A	P17-12A	-12V CH_9	
P18-12C	P17-12C	READ CH_9	
P18-13A	P17-13A	EYESYNC CH_9	
P18-13C	P17-13C	/P0R CH_9	
P18-14A	P17-14A	EYEY CH_9	
P18-14C	P17-14C	/EYECLK CH_9	
P18-15A	P17-15A	+12V CH_9	
P18-15C	P17-15C	EYEX CH_9	
P18-16A	P17-16A	/FRXD CH_9	
P18-16C		n/c	
P18-17A		n/c	
P18-17C		n/c	
P18-18A		n/c	
P18-18C		n/c	
P18-19A		n/c	
P18-19C	P17-19C	+5V A CH_9	
P18-20A		n/c	
P18-20C		n/c	
P18-21A	P17-21A	/RDCLK CH_9	
P18-21C		n/c	
P18-22A	P17-22A	XTCLK CH_9	
P18-22C	P17-22C	RXD CH_9	
P18-23A	P17-23A	TDCLK CH_9	
P18-23C	P17-23C	+5V B CH_9	
P18-24A	P17-24A	/RLSD CH_9	
P18-24C	P17-24C	TXD CH_9	
P18-25A	P17-25A	/RTS CH_9	
P18-25C	P17-25C	/CTS CH_9	
P18-26A	P17-26A	/RBCLK CH_9	
P18-26C	P17-26C	+5V C CH_9	
P18-27A		n/c	
P18-27C	P17-27C	/TBCLK CH_9	
P18-28A		n/c	
P18-28C		n/c	
P18-29A		n/c	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P18-29C		n/c	
P18-30A	P17-30A	AUXIN CH_9	
P18-30C	P17-30C	+5V D CH_9	
P18-31A	P17-31A	TXA CH_9	
P18-31C	P17-31C	AGND A CH_9	
P18-32A	P17-32A	RXA CH_9	
P18-32C	P17-32C	AGND B CH_9	
P19-01A	P20-01A	D6 CH_0	
P19-01C	P20-01C	D7 CH_0	
P19-02A	P20-02A	D4 CH_0	
P19-02C	P20-02C	D5 CH_0	
P19-03A	P20-03A	D3 CH_0	
P19-03C	P20-03C	DGND A CH_0	
P19-04A	P20-04A	D1 CH_0	
P19-04C	P20-04C	D2 CH_0	
P19-05A	P20-05A	DGND C CH_0	
P19-05C	P20-05C	D0 CH_0	
P19-06A	P20-06A	RS2 CH 0	
P19-06C	P20-06C	RS3 CH_0	
P19-07A	P20-07A	RS0 CH 0	
P19-07C	P20-07C	RS1 CH_0	
P19-08A	@	+12V	
P19-08C	P20-08C	DGND B CH_0	
P19-09A	P20-09A	/CS2 CH_0	
P19-09C	P20-09C	/CS1 CH_0	
P19-10A	P20-10A	DGND D CH_0	
P19-10C	P20-10C	/CS0 CH_0	
P19-11A	P20-11A	/WRITE CH_0	
P19-11C		n/c	
P19-12A	P20-12A	-12V CH_0	
P19-12C	P20-12C	READ CH_0	
P19-13A	P20-13A	EYESYNC CH_0	
P19-13C	P20-13C	/P0R CH_0	
P19-14A	P20-14A	EYEY CH_0	
P19-14C	P20-14C	/EYECLK CH_0	
P19-15A	P20-15A	+12VCH_0	
P19-15C	P20-15C	EYEX CH_0	
P19-16A	P20-16A	/FRXD CH_0	
P19-16C	%	-12V	
P19-17A	#	+5V	
P19-17C		n/c	
P19-18A	#	+5V	
P19-18C	J04-20	RXMD CH_0	
P19-19A	J03-19	RXMC CH_0	
P19-19C	P20-19C	+5V A CH_0	

Continued

Continued

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P19-20A	J05-19	CTS 232 CH_0	
P19-20C	J02-19	DCLKJ_	See Note 2
P19-21A	P20-21A	/RDCLK CH_0	
P19-21C	J01-20	DDATA S_CH_0	See Note 2
P19-22A	P20-22A	XTCLK CH_0	
P19-22C	P20-22C	RXD CH_0	
P19-23A	P20-23A	TDCLK CH_0	
P19-23C	P20-23C	+5V BCH_0	
P19-24A	P20-24A	/RLSD CH_O	
P19-24C	P20-24C	TXD CH_0	
P19-25A	P20-25A	/RT5 CH_0	
P19-25C	P20-25C	/CTS CH_0	
P19-26A	P20-26A	/RBCLK CH_0	
P19-26C	P20-26C	+5V C CH 0	
P19-27A	J05-20	RTS 232 CH_O	
P19-27C	P20-27C	/TBCLK CH_0	
P19-28A	J06-37	MTA T_0	
P19-28C	J06-38	MTA R_0	
P19-29A	J06-39	MRA T_0	
P19-29C	J06-40	MRA R_0	
P19-30A	P20-30A	AUXIN CH_0	
P19-30C	P20-30C	+5V D CH O	
P19-31A	P20-31A	TXA CH_0	
P19-31C	P20-31C	AGND A CH_0	
P19-32A	P20-32A	RXA CH_0	
P19-32C	P20-32C	AGND B CH_0	
P20-01A	P19-01A	D6 CH_0	
P20-01C	P19-01C	D7 CH_0	
P20-02A	P19-02A	D4CH_0	
P20-02C	P19-02C	D5 CH_0	
P20-03A	P19-03A	D3 CH_0	
P20-03C	P19-03C	DGND A CH_0	
P20-04A	P19-04A	D1 CH_0	
P20-04C	P19-04C	D2 CH_0	
P20-05A	P19-05A	DGND C CH_0	
P20-05C	P19-05C	D0 CH_0	
P20-06A	P19-06A	RS2 CH_0	
P20-06C	P19-06C	RS3 CH_0	
P20-07A	P19-07A	RS0 CH_0	
P20-07C	P19-07C	RS1 CH_0	
P20-08A		n/c	
P20-08C	P19-08C	DGND B CH_0	
P20-09A	P19-09A	/CS2 CH_0	
P20-09C	P19-09C	/CS1 CH_0	
P20-10A	P19-10A	DGND D CH_0	

MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
P20-10C	P19-10C	/CS0 CH_0	
P20-11A	P19-11A	/WRITE CHO	
P20-11C		n/c	
P20-12A	P19-12A	-12V CH_0	
P20-12C	P19-12C	READ CH_0	
P20-13A	P19-13A	EYESYNC CH_0	
P20-13C	P19-13C	/P0R CH_0	
P20-14A	P19-14A	EYEY CH_0	
P20-14C	P19-14C	/EYECLK CH_0	
P20-15A	P19-15A	+12V CH_0	
P20-15C	P19-15C	EYEX CH_0	
P20-16A	P19-16A	/FRXD CH_0	
P20-16C		n/c	
P20-17A		n/c	
P20-17C		n/c	
P20-18A		n/c	
P20-18C		n/c	
P20-19A		n/c	
P20-19C	P19-19C	+5V ACH_0	
P20-20A		n/c	
P20-20C		n/c	
P20-21A	P19-21A	/RDCLK CH_0	
P20-21C		n/c	
P20-22A	P19-22A	XTCLK CH_0	
P20-22C	P19-22C	RXD CH_0	
P20-23A	P19-23A	TDCLK CH_0	
P20-23C	P19-23C	+5V B CH_0	
P20-24A	P19-24A	/RLSD CH_0	
P20-24C	P19-24C	TXD CH_0	
P20-25A	P19-25A	/RTS CH_0	
P20-25C	P19-25C	/CTS CH_0	
P20-26A	P19-26A	/RBCLK CH_0	
P20-26C	P19-26C	+5V C CH_0	
P20-27A		n/c	
P20-27C	P19-27C	/TBCLK CH_0	
P20-28A		n/c	
P20-28C		n/c	
P20-29A		n/c	
P20-29C		n/c	
P20-30A	P19-30A	AUXIN CH_0	
P20-30C	P19-30C	+5V D CH 0	
P20-31A	P19-31A	TXA CH_0	
P20-31C	P19-31C	AGND A CH_0	
P20-32A	P19-32A	RXA CH_0	
P20-32C	P19-32C	AGND B CH_0	

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MODEM SHELF

FROM	TO	FUNCTION	PUNCH BLOCK
TB1-01	F01-02	+5V SUPPLY	
	F01-01		
	TB1-02		
	TB1-03		
TB1-02	F01-02	+5V SUPPLY	
	F01-01		
	TB1-01		
	TB1-03		
TB1-03	F01-02	+5V SUPPLY	
	F01-01		
	TB1-01		
	TB1-02		
TB1-04		n/c	
TB1-05	*	GND	
TB1-06	*	GND	
TB1-07	F02-01	+12V SUPPLY	
	F02-02		
	TB1-08		
TB1-08	F02-01	+12V SUPPLY	
	F02-02		
	TB1-07		
TB1-09	*	GND	
TB1-10	TB1-11	-12V SUPPLY	
	F03-01		
	F03-02		
TB1-11	F03-01	-12V SUPPLY	
	F03-02		
	TB1-10		
TB1-12	*	GND	

GENERAL NOTES

A11 "*" points are tied to each other (GND).

A11 "#" points are tied to each other (+5V).

A11 "@" points are tied to each other (+12V).

A11 "%" points are tied to each other (-12V).

CAUTION

The **FUNCTION "n/c"** means that signa1 is not used in this app1ication, but it does **NOT** mean that no signa1 is present.

NOTE 1

DIGITAL CROSS CONNECT

D100 - -> D109 can consist of 1 to 3 she1ves (A,B,C).

Each she1f can ho1d up to 10 modems (channe1s). The first she1f J1 and J2 connects to B400. J4 and J6 connect to the mux.

TRANSMIT CROSS CONNECT

T101 can consist of 1 to 3 she1ves (A,B,C). Each she1f can ho1d up to 10 modems (channe1s). The first she1f J1 thru J4 connects to B404. J6 connects to the mux.

Interconnection of Modem She1ves for expansion from 10 to 25 Channe1s. Daisy chain the fo11owing connections.

OUT IN	OUT IN
J1A --> J1	J1A --> J1
J2A --> J2	J2A --> J2
J3A --> J3	J3A --> J3
J4A --> J4	J4A --> J4

Continued

Continued

MODEM SHELF CONNECTION TO THE MUX FOR THE DIGITAL CROSS CONNECT

D100 - D109	PB03D - PB42D	100 - D109	PB03D - PB42D
J4-01 GND	01	J6-01 MTA T 01	01
J4-02 RXMD CH01	26	J6-02 MTA R 01	26
J4-03 GND	02	J6-03 MRA T 01	02
J4-04 RXMD CH02	27	J6-04 MRA R 01	27
J4-05 GND	03	J6-05 MTA T 02	03
J4-06 RXMD CH03	28	J6-06 MTA R 02	28
J4-07 GND	04	J6-07 MRA T 02	04
J4-08 RXMD CH04	29	J6-08 MRA R 02	29
J4-09 GND	05	J6-09 MTA T 03	05
J4-10 RXMD CH05	30	J6-10 MTA R 03	30
J4-11 GND	06	J6-11 MRA T 03	06
J4-12 RXMD CH06	31	J6-12 MRA R 03	31
J4-13 GND	07	J6-13 MTA T 04	07
J4-14 RXMD CH07	32	J6-14 MTA R 04	32
J4-15 GND	08	J6-15 MRA T 04	08
J4-16 RXMDCH08	33	J6-16 MRA R 04	33
J4-17 GND	09	J6-17 MTA T 05	09
J4-18 RXMD CH09	34	J6-18 MTA R 05	34
J4-19 GND	10	J6-19 MRA T 05	10
J4-20 RXMD CHI0	35	J6-20 MRA R 05	35
J4-21 GND	11	J6-21 MTA T 06	11
J4-22 RXMD CH11	36	J6-22 MTA R 06	36
J4-23 GND	12	J6-23 MRA T 06	12
J4-24 RXMD CH12	37	J6-24 MRA R 06	37
J4-25 GND	13	J6-25 MTA T 07	13
J4-26 RXMD CH13	38	J6-26 MTA R 07	38
J4-27 GND	14	J6-27 MRA T 07	14
J4-28 RXMD CH14	39	J6-28 MRA R 07	39
J4-29 GND	15	J6-29 MTA T 08	15
J4-30 RXMD CH15	40	J6-30 MTA R 08	40
J4-31 GND	16	J6-31 MRA T 08	16
J4-32 RXMDCH16	41	J6-32 MRA R 08	41
J4-33 GND	17	J6-33 MTA T 09	17
J4-34 RXMDCH17	42	J6-34 MTA R 09	42
J4-35 GND	18	J6-35 MRA T 09	18
J4-36 RXMD CH18	43	J6-36 MRA R 09	43
J4-37 GND	19	J6-37 MTA T 10	19
J4-38 RXMD CH19	44	J6-38 MTA R 10	44
J4-39 GND	20	J6-39 MRA T 10	20
J4-40 RXMDCH20	45	J6-40 MRA R 10	45
J4-41 GND	21	J6-41 n/c	21
J4-42 RXMD CH21	46	J6-42 n/c	46
J4-43 GND	22	J6-43 n/c	22
J4-44 RXMD CH22	47	J6-44 n/c	47

MODEM SHELF CONNECTION TO THE MUX FOR THE DIGITAL CROSS CONNECT

D100 - D109	PB03D - PB42D	100 - D109	PB03D - PB42D
J4-45 GND	23	J6-45 n/c	23
J4-46 RXMD CH23	48	J6-46 n/c	48
J4-47 GND	24	J6-47 n/c	24
J4-48 RXMD CH24	49	J6-48 n/c	49
J4-49 GND	25	J6-49 n/c	25
J4-50 RXMD CH25	50	J6-50 n/c	50

MODEM SHELF CONNECTION TO THE MUX FOR THE TRANSMIT CROSS CONNECT

T101A - T101C	PB05T - PB07T
J6-01 MTA T 01	01
J6-02 MTA R 01	26
J6-03 MRA T 01	02
J6-04 MRA R 01	27
J6-05 MTA T 02	03
J6-06 MTA R 02	28
J6-07 MRA T 02	04
J6-08 MRA R 02	29
J6-09 MTA T 03	05
J6-10 MTA R 03	30
J6-11 MRA T 03	06
J6-12 MRA R 03	31
J6-13 MTA T 04	07
J6-14 MTA R 04	32
J6-15 MRA T 04	08
J6-16 MRA R 04	33
J6-17 MTA T 05	09
J6-18 MTA R 05	34
J6-19 MRA T 05	10
J6-20 MRA R 05	35
J6-21 MTA T 06	11
J6-22 MTA R 06	36
J6-23 MRA T 06	12
J6-24 MRA R 06	37
J6-25 MTA T 07	13
J6-26 MTA R 07	38
J6-27 MRA T 07	14
J6-28 MRA R 07	39
J6-29 MTA T 08	15
J6-30 MTA R 08	40
J6-31 MRA T 08	16

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T101A - T101C		PB05T - PB07T
J6-33	MTA T 09	17
J6-34	MTA R 09	42
J6-35	MRA T 09	18
J6-36	MRA R 09	43
J6-37	MTA T 10	19
J6-38	MTA R 10	44
J6-39	MRA T 10	20
J6-40	MRA R 10	45
J6-41	n/c	21
J6-42	n/c	46
J6-43	n/c	22
J6-44	n/c	47
J6-45	n/c	23
J6-46	n/c	48
J6-47	n/c	24
J6-48	n/c	49
J6-49	n/c	25
J6-50	n/c	50

End of Note 1

NOTE 2

In a11 (DDATA S_) and (DCLKA_ thru DCLKZ_) the "_" shou1d be substituted with a "01" thru "10" to show the Site Number you are dea1ing with.

FUNCTION LIST

MODEM SHELF / FUNCTION LIST DATE: 03/28/90	
+12V	11A(08),F02(04),P03A(08),P13A(08), P15A(08),P05A(08),P17A(08),P19A(08), P07A(08),P01A(08),F02(03),P09A(08);
+12V CH_0	P19A(15),P20A(15);
+12V CH_1	P02A(15),P01A(15);
+12V CH_2	P03A(15),P04A(15);
+12V CH_3	P05A(15),P06A(15);
+12V CH_4	P07A(15),P08A(15);
+12V CH_5	P10A(15),P09A(15);
+12V CH_6	P11A(15),P12A(15);
+12V CH_7	P13A(15),P14A(15);
+12V CH_8	P15A(15),P16A(15);
+12V CH_9	P17A(15),P18A(15);
+12V SUPPLY	F02(01),F02(02),TBI(07),TBI(08);
+5V	F01(04),P11A(17),P11A(18),P03A(17), P03A(18),P13A(17),P13A(18),P15A(I7), P15A(18),P05A(17),P05A(18),P17A(17), P17A(18),P19A(17),P19A(18),F01(03), P07A(17),P07A(18),P01A(17),P01A(18), P09A(17),P09A(18);
+5V A CH_0	P19C(19),P20C(19);
+5V A CH_1	P02C(19),P01C(19);
+5V A CH_2	P03C(19),P04C(19);
+5V A CH_3	P05C(19),P06C(19);
+5V A CH_4	P07C(19),P08C(19);
+5V A CH_5	P10C(19),P09C(19);
+5V A CH_6	P11C(19),P12C(19);

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+5V A CH_7	P13C(19),P14C(19);
+5V A CH_8	P15C(19),P16C(19);
+5V A CH_9	P17C(19),P18C(19);
+5V B CH_0	P19C(23),P20C(23);
+5V B CH_1	P02C(23),P01C(23);
+5V B CH_2	P03C(23),P04C(23);
+5V B CH_3	P05C(23),P06C(23);
+5V B CH_4	P07C(23),P08C(23);
+5V B CH_5	P10C(23),P09C(23);
+5V B CH_6	P11C(23),P12C(23);
+5V B CH_7	P13C(23),P14C(23);
+5V B CH_8	P15C(23),P16C(23);
+5V B CH_9	P17C(23),P18C(23);
+5V C CH_0	P19C(26),P20C(26);
+5V C CH_1	P02C(26),P01C(26);
+5V C CH_2	P03C(26),P04C(26);
+5V C CH_3	P05C(26),P06C(26);
+5V C CH_4	P07C(26),P08C(26);
+5V C CH_5	P10C(26),P09C(26);
+5V C CH_6	P11C(26),P12C(26);
+5V C CH_7	P13C(26),P14C(26);
+5V C CH_8	P15C(26),P16C(26);
+5V C CH_9	P17C(26),P18C(26);
+5V D CH_0	P19C(30),P20C(30);
+5V D CH_1	P01C(30),P02C(30);
+5V D CH_2	P03C(30),P04C(30);
+5V D CH_3	P05C(30),P06C(30);
+5V D CH_4	P07C(30),P08C(30);
+5V D CH_5	P09C(30),P10C(30);
+5V D CH_6	P11C(30),P12C(30);
+5V D CH_7	P13C(30),P14C(30);
+5V D CH_8	P15C(30),P16C(30);
+5V D CH_9	P17C(30),P18C(30);
+5V SUPPLY	F01(02),F01(01),TB1(01);TB1(02),TB1(03);
-12V	P11C(16),P03C(16),P13C(16),P15C(16),F03(03),P05C(16), P17C(16),P19C(16),F03(04),P07C(16),P01C(16),P09C(16);
-12V CH_0	P19A(12),P20A(12);
-12V CH_1	P02A(12),P01A(12);
-12V CH_2	P03A(12),P04A(12);
-12V CH_3	P05A(12),P06A(12);
-12V CH_4	P07A(12),P08A(12);
-12V CH_5	P10A(12),P09A(12);
-12V CH_6	P11A(12),P12A(12);
-12V CH_7	P13A(12),P14A(12);
-12V CH_8	P15A(12),P16A(12);
-12V CH_9	P17A(12),P18A(12);
-12V SUPPLY	TB1(11),F03(01),F03(02),TBI(10);
/CS0 CH_0	P19C(10),P20C(10);
/CS0 CH_1	P02C(10),P01C(10);
/CS0 CH_2	P03C(10),P04C(10);
/CS0 CH_3	P05C(10),P06C(10);
/CS0 CH_4	P07C(10),P08C(10);
/CS0 CH_5	P10C(10),P09C(10);
/CS0 CH_6	P11C(10),P12C(10);
/CS0 CH_7	P13C(10),P14C(10);

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/CS0 CH_8	P15C(10),P16C(10);
/CS0 CH_9	P17C(10),P18C(10);
/CS1 CH_0	P19C(09),P20C(09);
/CS1 CH_1	P02C(09),P01C(09);
/CS1 CH_2	P03C(09),P04C(09);
/CS1 CH_3	P05C(09),P06C(09);
/CS1 CH_4	P07C(09),P08C(09);
/CS1 CH_5	P10C(09),P09C(09);
/CS1 CH_6	P11C(09),P12C(09);
/CS1 CH_7	P13C(09),P14C(09);
/CS1 CH_8	P15C(09),P16C(09);
/CS1 CH_9	P17C(09),P18C(09);
/CS2 CH_0	P19A(09),P20A(09);
/CS2 CH_1	P02A(09),P01A(09);
/CS2 CH_2	P03A(09),P04A(09);
/CS2 CH_3	P05A(09),P06A(09);
/CS2 CH_4	P07A(09),P08A(09);
/CS2 CH_5	P10A(09),P09A(09);
/CS2 CH_6	P11A(09),P12A(09);
/CS2 CH_7	P13A(09),P14A(09);
/CS2 CH_8	P15A(09),P16A(09);
/CS2 CH_9	P17A(09),P18A(09);
/CTS CH_0	P19C(25),P20C(25);
/CTS CH_1	P02C(25),P01C(25);
/CTS CH_2	P03C(25),P04C(25);
/CTS CH_3	P05C(25),P06C(25);
/CTS CH_4	P07C(25),P08C(25);
/CTS CH_5	P10C(25),P09C(25);
/CTS CH_6	P11C(25),P12C(25);
/CTS CH_7	P13C(25),P14C(25);
/CTS CH_8	P15C(25),P16C(25);
/CTS CH_9	P17C(25),P18C(25);
/EYECLK CH_0	P19C(14),P20C(14);
/EYECLK CH_1	P02C(14),P01C(14);
/EYECLK CH_2	P03C(14),P04C(14);
/EYECLK CH_3	P05C(14),P06C(14);
/EYECLK CH_4	P07C(14),P08C(14);
/EYECLK CH_5	P10C(14),P09C(14);
/EYECLK CH_6	P11C(14),P12C(14);
/EYECLK CH_7	P13C(14),P14C(14);
/EYECLK CH_8	P15C(14),P16C(14);
/EYECLK CH_9	P17C(14),P18C(14);
/FRXD CH_0	P19A(16),P20A(16);
/FRXD CH_1	P02A(16),P01A(16);
/FRXD CH_2	P03A(16),P04A(16);
/FRXD CH_3	P05A(16),P06A(16);
/FRXD CH_4	P07A(16),P08A(16);
/FRXD CH_5	P10A(16),P09A(16);
/FRXD CH_6	P11A(16),P12A(16);
/FRXD CH_7	P13A(16),P14A(16);
/FRXD CH_8	P15A(16),P16A(16);
/FRXD CH_9	P17A(16),P18A(16);
/POR CH_0	P19C(13),P20C(13);
/POR CH_1	P02C(13),P01C(13);

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/POR CH_2	P03C(13),P04C(13);
/POR CH_3	P05C(13),P06C(13);
/POR CH_4	P07C(13),P08C(13);
/POR CH_5	P10C(13),P09C(13);
/POR CH_6	P11C(13),P12C(13);
/POR CH_7	P13C(13),P14C(13);
/POR CH_8	P15C(13),P16C(13);
/POR CH_9	P17C(13),P18C(13);
/RBCLK CH_0	P19A(26),P20A(26);
/RBCLK CH_1	P02A(26),P01A(26);
/RBCLK CH_2	P03A(26),P04A(26);
/RBCLK CH_3	P05A(26),P06A(26);
/RBCLK CH_4	P07A(26),P08A(26);
/RBCLK CH_5	P10A(26),P09A(26);
/RBCLK CH_6	P11A(26),P12A(26);
/RBCLK CH_7	P13A(26),P14A(26);
/RBCLK CH_8	P15A(26),P16A(26);
/RBCLK CH_9	P17A(26),P18A(26);
/RDCLK CH_0	P19A(21),P20A(21);
/RDCLK CH_1	P02A(21),P01A(21);
/RDCLK CH_2	P03A(21),P04A(21);
/RDCLK CH_3	P05A(21),P06A(21);
/RDCLK CH_4	P07A(21),P08A(21);
/RDCLK CH_5	P10A(21),P09A(21);
/RDCLK CH_6	P11A(21),P12A(21);
/RDCLK CH_7	P13A(21),P14A(21);
/RDCLK CH_8	P15A(21),P16A(21);
/RDCLK CH_9	P17A(21),P18A(21);
/RLSD CH_0	P19A(24),P20A(24);
/RLSD CH_1	P02A(24),P01A(24);
/RLSD CH_2	P03A(24),P04A(24);
/RLSD CH_3	P05A(24),P06A(24);
/RLSD CH_4	P07A(24),P08A(24);
/RLSD CH_5	P10A(24),P09A(24);
/RLSD CH_6	P11A(24),P12A(24);
/RLSD CH_7	P13A(24),P14A(24);
/RLSD CH_8	P15A(24),P16A(24);
/RLSD CH_9	P17A(24),P18A(24);
/RTS CH_0	P19A(25),P20A(25);
/RTS CH_1	P02A(25),P01A(25);
/RTS CH_2	P03A(25),P04A(25);
/RTS CH_3	P05A(25),P06A(25);
/RTS CH_4	P07A(25),P08A(25);
/RTS CH_5	P10A(25),P09A(25);
/RTS CH_6	P11A(25),P12A(25);
/RTS CH_7	P13A(25),P14A(25);
/RTS CH_8	P15A(25),P16A(25);
/RTS CH_9	P17A(25),P18A(25);
/TBCLK CH_0	P19C(27),P20C(27);
/TBCLK CH_1	P02C(27),P01C(27);
/TBCLK CH_2	P03C(27),P04C(27);
/TBCLK CH_3	P05C(27),P06C(27);
/TBCLK CH_4	P07C(27),P08C(27);
/TBCLK CH_5	P10C(27),P09C(27);

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/TBCLK CH_6	P11C(27),P12C(27);
/TBCLK CH_7	P13C(27),P14C(27);
/TBCLK CH_8	P15C(27),P16C(27);
/TBCLK CH_9	P17C(27),P18C(27);
/WRITE CH_0	P19A(11),P20A(11);
/WRITE CH_1	P02A(11),P01A(11);
/WRITE CH_2	P03A(11),P04A(11);
/WRITE CH_3	P05A(11),P06A(11);
/WRITE CH_4	P07A(11),P08A(11);
/WRITE CH_5	P10A(11),P09A(I1);
/WRITE CH_6	P11A(11),P12A(11);
/WRITE CH_7	P13A(11),P14A(11);
/WRITE CH_8	P15A(11),P16A(11);
/WRITE CH_9	P17A(11),P18A(11);
AGND A CH_0	P19C(31),P20C(31);
AGND A CH_1	P01C(31),P02C(31);
AGND A CH_2	P03C(31),P04C(31);
AGND A CH_3	P05C(31),P06C(31);
AGND A CH_4	P07C(31),P08C(31);
AGND A CH_5	P09C(31),P10C(31);
AGND A CH_6	P11C(31),P12C(31);
AGND A CH_7	P18C(31),P14C(31);
AGND A CH_8	P15C(31),P16C(31);
AGND A CH_9	P17C(31),P18C(31);
AGND B CH_0	P19C(32),P20C(32);
AGND B CH_1	P01C(32),P02C(32);
AGND B CH_2	P03C(32),P04C(32);
AGND B CH_3	P05C(32),P06C(32);
AGND B CH_4	P07C(32),P08C(32);
AGND B CH_5	P09C(32),P10C(32);
AGND B CH_6	P11C(32),P12C(32);
AGND B CH_7	P13C(32),P14C(32);
AGND B CH_8	P15C(32),P16C(32);
AGND B CH_9	P17C(32),P18C(32);
AUXIN CH_0	P19A(30),P20A(30);
AUXIN CH_1	P02A(30),P01A(30);
AUXIN CH_2	P03A(30),P04A(30);
AUXIN CH_3	P05A(30),P06A(30);
AUXIN CH_4	P07A(30),P08A(30);
AUXIN CH_5	P10A(30),P09A(30);
AUXIN CH_6	P11A(30),P12A(30);
AUXIN CH_7	P13A(30),P14A(30);
AUXIN CH_8	P15A(30),P16A(30);
AUXIN CH_9	P17A(30),P18A(30);
CTS 232 CH11	JA05A(01),J05(21);
CTS 232 CH12	JA05(23),J05A(03);
CTS 232 CH13	JA05(25),J05A(05);
CTS 232 CH14	JA05(27),J05A(07);
CTS 232 CH15	JA05(29),J05A(09);
CTS 232 CH16	JA05(31),J05A(11);
CTS 232 CH17	JA05(33),J05A(13);
CTS 232 CH18	JA05(35),J05A(15);
CTS 232 CH19	JA05(37),J05A(17);
CTS 232 CH20	JA05(39),J05A(19);

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CTS 232 CH21	JA05(41),J05A(21);
CTS 232 CH22	JA05(43),J05A(23);
CTS 232 CH23	JA05(45),J05A(25);
CTS 232 CH24	JA05(47),J05A(27);
CTS 232 CH25	JA05A(29),J05(49);
CTS 232 CH_0	JA05(19),P19A(20);
CTS232CH_1	JA05(01),P01A(20);
CTS 232 CH_2	P03A(20),J05(03);
CTS 232 CH_3	JA05(05),P05A(20);
CTS 232 CH_4	JA05(07),P07A(20);
CTS 232 CH_5	JA05(09),P09A(20);
CTS 232 CH_6	P11A(20),J05(11);
CTS 232 CH_7	P13A(20),J05(13);
CTS 232 CH_8	P15A(20),J05(15);
CTS 232 CH_9	JA05(17),P17A(20);
D0 CH_0	P19C(05),P20C(05);
D0 CH_1	P02C(05),P01C(05);
D0 CH_2	P03C(05),P04C(05);
D0 CH_3	P05C(05),P06C(05);
D0 CH_4	P07C(05),P08C(05);
D0 CH_5	P10C(05),P09C(05);
D0 CH_6	P11C(05),P12C(05);
D0 CH_7	P13C(05),P14C(05);
D0 CH_8	P15C(05),P16C(05);
D0 CH_9	P17C(05),P18C(05);
D1 CH_0	P19A(04),P20A(04);
D1 CH_1	P02A(04),P01A(04);
D1 CH_2	P03A(04),P04A(04);
D1 CH_3	P05A(04),P06A(04);
D1 CH_4	P07A(04),P08A(04);
D1 CH_5	P10A(04),P09A(04);
D1 CH_6	P11A(04),P12A(04);
D1 CH_7	P13A(04),P14A(04);
D1 CH_8	P15A(04),P16A(04);
D1 CH_9	P17A(04),P18A(04);
D2 CH_0	P19C(04),P20C(04);
D2 CH_1	P02C(04),POIC(04);
D2 CH_2	P03C(04),P04C(04);
D2 CH_3	P05C(04),P06C(04);
D2 CH_4	P07C(04),P08C(04);
D2 CH_5	P10C(04),P09C(04);
D2 CH_6	P11C(04),P12C(04);
D2 CH_7	P13C(04),P14C(04);
D2 CH_8	P15C(04),P16C(04);
D2 CH_9	P17C(04),P18C(04);
D3 CH_0	P19A(03),P20A(03);
D3 CH_1	P02A(03),P01A(03);
D3 CH_2	P03A(03),P04A(03);
D3 CH_3	P05A(03),P06A(03);
D3 CH_4	P07A(03),P08A(03);
D3 CH_5	P10A(03),P09A(03);
D3 CH_6	P11A(03),P12A(03);
D3 CH_7	P13A(03),P14A(03);
D3 CH_8	P15A(03),P16A(03);

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D3 CH_9	P17A(03),P18A(03);
D4 CH_0	P19A(02),P20A(02);
D4 CH_1	P02A(02),P01A(02);
D4 CH_2	P03A(02),P04A(02);
D4 CH_3	P06A(02),P05A(02);
D4 CH_4	P07A(02),P08A(02);
D4 CH_5	P10A(02),P09A(02);
D4 CH_6	P11A(02),P12A(02);
D4 CH_7	P13A(02),P14A(02);
D4 CH_8	P15A(02),P16A(02);
D4 CH_9	P17A(02),P18A(02);
D5 CH_0	P20C(02),P19C(02);
D5 CH_1	P02C(02),P01C(02);
D5 CH_2	P03C(02),P04C(02);
D5 CH_3	P05C(02),P06C(02);
D5 CH_4	P07C(02),P08C(02);
D5 CH_5	P10C(02),P09C(02);
D5 CH_6	P11C(02),P12C(02);
D5 CH_7	P13C(02),P14C(02);
D5 CH_8	P15C(02),P16C(02);
D5 CH_9	P17C(02),P18C(02);
D6 CH_0	P20A(01),P19A(01);
D6 CH_1	P02A(01),P01A(01);
D6 CH_2	P03A(01),P04A(01);
D6 CH_3	P05A(01),P06A(01);
D6 CH_4	P07A(01),P08A(01);
D6 CH_5	P10A(01),P09A(01);
D6 CH_6	P11A(01),P12A(01);
D6 CH_7	P13A(01),P14A(01);
D6 CH_8	P16A(01),P15A(01);
D6 CH_9	P18A(01),P17A(01);
D7 CH_0	P19C(01),P20C(01);
D7 CH_1	P02C(01),P01C(01);
D7 CH_2	P03C(01),P04C(01);
D7 CH_3	P06C(01),P05C(01);
D7 CH_4	P07C(01),P08C(01);
D7 CH_5	P10C(01),P09C(01);
D7 CH_6	P1IC(01),P12C(01);
D7 CH_7	P13C(01),P14C(01);
D7 CH_8	P15C(01),P16C(01);
D7 CH_9	P17C(01),P18C(01);
DCLKA_	J02(01),P01 C(20);
DCLKB_	P03C(20),J02(03);
DCLKC_	J02(05),P05C(20);
DCLKD_	P07C(20),J02(07);
DCLKE_	J02(09),P09C(20);
DCLKF_	P11C(20),J02(11);
DCLKG_	P13C(20),J02(13);
DCLKH_	P15C(20),J02(15);
DCLKI_	J02(17),P17C(20);
DCLKJ_	P19C(20),J02(19);
DCLKK_	J02A(01),J02(21);
DCLKL_	J02A(03),J02(23);
DCLKM_	J02A(05),J02(25);

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DCLKN_	J02A(07),J02(27);
DCLKP_	J02A(09),J02(29);
DCLKQ_	J02A(11),J02(31);
DCLKR_	J02A(13),J02(33);
DCLKS_	J02A(15),J02(35);
DCLKT_	J02(37),J02A(17);
DCLKU_	J02(39),J02A(19);
DCLKV_	J02(41),J02A(21);
DCLKW_	J02(43),J02A(23);
DCLKX_	J02(45),J02A(25);
DCLKY_	J02(47),J02A(27);
DCLKZ_	J02(49),J02A(29);
DDATA S_ CH11	JA01A(02),J01(22);
DDATA S_ CH12	JA01A(04),J01(24);
DDATA S_ CH13	JA01A(06),J01(26);
DDATA S_ CH14	JA01A(08),J01(28);
DDATA S_ CH15	JA01A(10),J01(30);
DDATA S_ CH16	JA01(32),J01A(12);
DDATA S_ CH17	JA01A(14),J01(34);
DDATA S_ CH18	JA01A(16),J01(36);
DDATA S_ CH19	JA01A(18),J01(38);
DDATA S_ CH20	JA01A(20),J01(40);
DDATA S_ CH21	JA01A(22),J01(42);
DDATA S_ CH22	JA01A(24),J01(44);
DDATA S_ CH23	JA01A(26),J01(46);
DDATA S_ CH24	JA01A(28),J01(48);
DDATA S_ CH25	JA01A(30),J01(50);

DDATA S_ CH_0	JA01(20),P19C(21);
DDATA S_ CH_1	JA01(02),P01C(21);
DDATA S_ CH_2	JA01(04),P03C(21);
DDATA S_ CH_3	JA01(06),P05C(21);
DDATA S_ CH_4	JA01(08),P07C(21);
DDATA S_ CH_5	JA01(10),P09C(21);
DDATA S_ CH_6	P11C(21),J01(12);
DDATA S_ CH_7	P13C(21),J01(14);
DDATA S_ CH_8	P15C(21),J01(16);
DDATA S_ CH_9	P17C(21),J01(18);
DGND A CH_0	P20C(03),P19C(03);
DGND A CH_1	P02C(03),P01C(03);
DGND A CH_2	P03C(03),P04C(03);
DGND A CH_3	P05C(03),P06C(03);
DGND A CH_4	P07C(03),P08C(03);
DGND A CH_5	P10C(03),P09C(03);
DGND A CH_6	P12C(03),P11C(03);
DGND A CH_7	P13C(03),P14C(03);
DGND A CH_8	P15C(03),P16C(03);
DGND A CH_9	P17C(03),P18C(03);
DGND B CH_0	P20C(08),P19C(08);
DGND B CH_1	P02C(08),P01C(08);
DGND B CH_2	P03C(08),P04C(08);
DGND B CH_3	P05C(08),P06C(08);
DGND B CH_4	P07C(08),P08C(08);
DGND B CH_5	P10C(08),P09C(08);
DGND B CH_6	P11C(08),P12C(08);

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DGND B CH_7	P13C(08),P14C(08);
DGND B CH_8	P15C(08),P16C(08);
DGND B CH_9	P17C(08),P18C(08);
DGND C CH_0	P20A(05),P19A(05);
DGND C CH_1	P02A(05),P01A(05);
DGND C CH_2	P03A(05),P04A(05);
DGND C CH_3	P05A(05),P06A(05);
DGND C CH_4	P07A(05),P08A(05);
DGND C CH_5	P10A(05),P09A(05);
DGND C CH_6	P11A(05),P12A(05);
DGND C CH_7	P14A(05),P13A(05);
DGND C CH_8	P16A(05),P15A(05);
DGND C CH_9	P18A(05),P17A(05);
DGND D CH_0	P19A(10),P20A(10);
DGND D CH_1	P02A(10),P01A(10);
DGND D CH_2	P03A(10),P04A(10);
DGND D CH_3	P05A(10),P06A(10);
DGND D CH_4	P07A(10),P08A(10);
DGND D CH_5	P10A(10),P09A(10);
DGND D CH_6	P11A(10),P12A(10);
DGND D CH_7	P13A(10),P14A(10);
DGND D CH_8	P15A(10),P16A(10);
DGND D CH_9	P18A(10),P17A(10);
EYESYNC CH_0	P19A(13),P20A(13);
EYESYNCCH_1	P02A(13),P01A(13);
EYESYNC CH_2	P03A(13),P04A(13);
EYESYNC CH_3	P05A(13),P06A(13);
EYESYNC CH_4	P07A(13),P08A(13);
EYESYNC CH_5	P10A(13),P09A(13);
EYESYNC CH_6	P11A(13),P12A(13);
EYESYNC CH_7	P13A(13),P14A(13);
EYESYNC CH_8	P15A(13),P16A(13);
EYESYNC CH_9	P17A(13),P18A(13);
EYEX CH_0	P19C(15),P20C(15);
EYEX CH_1	P02C(15),P01C(15);
EYEX CH_2	P03C(15),P04C(15);
EYEX CH_3	P06C(15),P05C(15);
EYEX CH_4	P07C(15),P08C(15);
EYEX CH_5	P10C(15),P09C(15);
EYEX CH_6	P11C(15),P12C(15);
EYEX CH_7	P13C(15),P14C(15);
EYEX CH_8	P15C(15),P16C(15);
EYEX CH_9	P17C(15),P18C(15);
EYEY CH_0	P19A(14),P20A(14);
EYEY CH_1	P01A(14),P02A(14);
EYEY CH_2	P03A(14),P04A(14);
EYEY CH_3	P05A(14),P06A(14);
EYEY CH_4	P07A(14),P08A(14);
EYEY CH_5	P10A(14),P09A(14);
EYEY CH_6	P11A(14),P12A(14);
EYEY CH_7	P13A(14),P14A(14);
EYEY CH_8	P15A(14),P16A(14);
EYEY CH_9	P17A(14),P18A(14);

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GND	J02(36),J04(05),J0 1(21),J04(07), J02(38),J04(09),J01A(03),J02(06), J02(40),J04(13),J04(15),J02(42), J01A(27),J02(08),J04(17),J04(19), J02(44),J01(05),J04A(09),J04(23), J02(46),J04(25),J01A(29),J04(27), J02(48),J01(23),J04(29),J04(31), J02(50),J01A(09),J04(33),J03(38), J04(35),J02A(02),J04(39),J04A(21), J04(43),J01A(11),J01(25),J04(21), J04(45),J02A(06),J04(47),J02A(08), J04(49),J01A(13),J04A(01),J01A(23), J02A(10),J01A(21),J04A(05),J02A(12), J04A(07),J02A(14),J01(27),J04A(11), J04A(13),J02A(16),J01A(17),J04A(15), J04A(17),J02A(18),J04(11),J01A(19), J02A(22),J04A(27),J04A(29),J02A(24), J01(41),J01A(05),J01(09),J02A(20), J02A(28),J02A(30),J01(31),J02(16), J03(02),J01A(25),J03(04),J01A(07), J04A(23),J03(08),J03(10),J03(12), J04A(03),J01(11),J03(14),J03(16), J01(35),J03(06),J02(02),J03(18), J03(20),J02(04),J01(29),J03(24), J04A(25),J01(37),J03(26),J01A(15), J03(28),J01(13),J03(30),J01(07), J03(32),J03(34),J03(36),J02(12), J04A(19),J04(37),J02(14),J03(40), J01(01),J03(42),J01(33),J03(44), TB1(06),J01(39),TB1(09),TB1(12), J03(46),J03(48),J02(18),J01(43), J03(50),J03A(02),J02(20),J03A(04), J04(41),J03A(06),J02(22),J01(45), J03A(08),J03A(10),J02A(04),J01(17), J02(24),J03A(12),TB1(05),J03A(28), J02(26),J03A(14),J01(47),J03A(16), J02A(26),J02(28),J03A(18),J02(10), J01(15),J03A(20),J01(03),J03A(22), J02(30),J01(49),J03(22),J03A(24), J03A(26),J02(32),J01(19),J02(34), J03A(30),J01A(01),J04(01),J04(03);
MRAR_0	P19C(29),J06(40);
MRAR_1	JA06(04),P01C(29);
MRAR_2	P03C(29),J06(08);
MRAR_3	P05C(29),J06(12);
MRAR_4	JA06(16),P07C(29);
MRAR_5	JA06(20),P09C(29);
MRAR_6	P11C(29),J06(24);
MRAR_7	P13C(29),J06(28);
MRAR_8	P15C(29),J06(32);
MRAR_9	P17C(29),J06(36);
MRAT_0	P19A(29),J06(39);
MRAT_1	JA06(03),P01A(29);
MRAT_2	P03A(29),J06(07);
MRAT_3	P05A(29),J06(11);
MRAT_4	JA06(15),P07A(29);
MRAT_5	P09A(29),J06(19);
MRAT_6	P11A(29),J06(23);
MRAT_7	JA06(27),P13A(29);
MRAT_8	P15A(29),J06(31);
MRAT_9	P17A(29),J06(35);
MTAR_0	P19C(28),J06(38);
MTAR_1	JA06(02),P01C(28);
MTAR_2	P03C(28),J06(06);
MTAR_3	P05C(28),J06(10);
MTAR_4	JA06(14),P07C(28);
MTAR_5	P09C(28),J06(18);
MTAR_6	JA06(22),P11C(28);
MTAR_7	P13C(28),J06(26);
MTAR_8	JA06(30),P15C(28);
MTAR_9	P17C(28),J06(34);

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MTAT_0	JA06(37),P19A(28);
MTAT_1	JA06(01),P01A(28);
MTAT_2	JA06(05),P03A(28);
MTAT_3	P05A(28),J06(09);
MTAT_4	JA06(13),P07A(28);
MTAT_5	P09A(28),J06(17);
MTAT_6	P11A(28),J06(21);
MTAT_7	P13A(28),J06(25);
MTAT_8	JA06(29),P15A(28);
MTAT_9	P17A(28),J06(33);
READ CH_0	P19C(12),P20C(12);
READ CH_1	P02C(12),P01C(12);
READ CH_2	P03C(12),P04C(12);
READ CH_3	P05C(12),P06C(12);
READ CH_4	P07C(12),P08C(12);
READ CH_5	P10C(12),P09C(12);
READ CH_6	P12C(12),P11C(12);
READ CH_7	P14C(12),P13C(12);
READ CH_8	P15C(12),P16C(12);
READ CH_9	P17C(12),P18C(12);
RS0 CH_0	P20A(07),P19A(07);
RS0 CH_1	P02A(07),P01A(07);
RS0 CH_2	P04A(07),P03A(07);
RS0 CH_3	P05A(07),P06A(07);
RS0 CH_4	P07A(07),P08A(07);
RS0 CH_5	P10A(07),P09A(07);
RS0 CH_6	P12A(07),P11A(07);
RS0 CH_7	P13A(07),P14A(07);
RS0 CH_8	P15A(07),P16A(07);
RS0 CH_9	P18A(07),P17A(07);
RS1 CH_0	P19C(07),P20C(07);
RS1 CH_1	P02C(07),P01C(07);
RS1 CH_2	P03C(07),P04C(07);
RS1 CH_3	P05C(07),P06C(07);
RS1 CH_4	P07C(07),P08C(07);
RS1 CH_5	P10C(07),P09C(07);
RS1 CH_6	P11C(07),P12C(07);
RS1 CH_7	P13C(07),P14C(07);
RS1 CH_8	P15C(07),P16C(07);
RS1 CH_9	P17C(07),P18C(07);
RS2 CH_0	P20A(06),P19A(06);
RS2 CH_1	P02A(06),P01A(06);
RS2 CH_2	P03A(06),P04A(06);
RS2 CH_3	P05A(06),P06A(06);
RS2 CH_4	P07A(06),P08A(06);
RS2 CH_5	P10A(06),P09A(06);
RS2 CH_6	P11A(06),P12A(06);
RS2 CH_7	P13A(06),P14A(06);
RS2 CH_8	P16A(06),P15A(06);
RS2 CH_9	P17A(06),P18A(06);
RS3 CH_0	P20C(06),P19C(06);
RS3 CH_1	P02C(06),P01 C(06);
RS3 CH_2	P04C(06),P03C(06);
RS3 CH_3	P05C(06),P06C(06);

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RS3 CH_4	P07C(06),P08C(06);
RS3 CH_5	P09C(06),P10C(06);
RS3 CH_6	P11C(06),P12C(06);
RS3 CH_7	P14C(06),P13C(06);
RS3 CH_8	P15C(06),P16C(06);
RS3 CH_9	P18C(06),P17C(06);
RTS 232 CH11	JA05A(02),J05(22);
RTS 232 CH12	JA05A(04),J05(24);
RTS 232 CH13	JA05(26),J05A(06);
RTS 232 CH14	JA05A(08),J05(28);
RTS 232 CH15	JA05A(10),J05(30);
RTS 232 CH16	JA05(32),J05A(12);
RTS 232 CH17	JA05A(14),J05(34);
RTS 232 CH18	JA05A(16),J05(36);
RTS 232 CH19	JA05(38),J05A(18);
RTS 232 CH20	JA05(40),J05A(20);
RTS 232 CH21	JA05(42),J05A(22);
RTS 232 CH22	JA05A(24),J05(44);
RTS 232 CH23	JA05(46),J05A(26);
RTS 232 CH24	JA05(48),J05A(28);
RTS 232 CH25	JA05(50),J05A(30);
RTS 232 CH_0	JA05(20),P19A(27);
RTS 232 CH_1	JA05(02),P01A(27);
RTS 232 CH_2	P03A(27),J05(04);
RTS 232 CH_3	JA05(06),P05A(27);
RTS 232 CH_4	JA05(08),P07A(27);
RTS 232 CH_5	P09A(27),J05(10);
RTS 232 CH_6	P11A(27),J05(12);
RTS 232 CH_7	P13A(27),J05(14);
RTS 232 CH_8	JA05(16),P15A(27);
RTS 232 CH_9	JA05(18),P17A(27);
RXA CH_0	P19A(32),P20A(32);
RXA CH_1	P01A(32),P02A(32);
RXA CH_2	P04A(32),P03A(32);
RXA CH_3	P06A(32),P05A(32);
RXA CH_4	P08A(32),P07A(32);
RXA CH_5	P09A(32),P10A(32);
RXA CH_6	P11A(32),P12A(32);
RXA CH_7	P14A(32),P13A(32);
RXA CH_8	P16A(32),P15A(32);
RXA CH_9	P17A(32),P18A(32);
RXD CH_0	P19C(22),P20C(22);
RXD CH_1	P02C(22),P01C(22);
RXD CH_2	P04C(22),P03C(22);
RXD CH_3	P05C(22),P06C(22);
RXD CH_4	P08C(22),P07C(22);
RXD CH_5	P10C(22),P09C(22);
RXD CH_6	P11C(22),P12C(22);
RXD CH_7	P14C(22),P13C(22);
RXD CH_8	P15C(22),P16C(22);
RXD CH_9	P17C(22),P18C(22);
RXMC CH11	JA03A(01),J03(21);
RXMC CH12	JA03A(03),J03(23);
RXMC CH13	JA03A(05),J03(25);

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RXMC CH14	JA03(27),J03A(07);
RXMC CH15	JA03(29),J03A(09);
RXMC CH16	JA03A(11),J03(31);
RXMC CH17	JA03(33),J03A(13);
RXMC CH18	JA03A(15),J03(35);
RXMC CH19	JA03(37),J03A(17);
RXMC CH20	JA03(39),J03A(19);
RXMC CH21	JA03(41),J03A(21);
RXMC CH22	JA03A(23),J03(43);
RXMC CH23	JA03(45),J03A(25);
RXMC CH24	JA03A(27),J03(47);
RXMC CH25	JA03(49),J03A(29);
RXMC CH_0	JA03(19),P19A(19);
RXMC CH_1	P01A(19),J03(01);
RXMC CH_2	JA03(03),P03A(19);
RXMC CH_3	JA03(05),P05A(19);
RXMC CH_4	P07A(19),J03(07);
RXMC CH_5	JA03(09),P09A(19);
RXMC CH_6	P11A(19),J03(11);
RXMC CH_7	P13A(19),J03(13);
RXMC CH_8	JA03(15),P15A(19);
RXMC CH_9	JA03(17),P17A(19);
RXMD CH11	JA04(22),J04A(02);
RXMD CH12	JA04(24),J04A(04);
RXMD CH13	JA04A(06),J04(26);
RXMD CH14	JA04A(08),J04(28);
RXMD CH15	JA04(30),J04A(10);

RXMD CH16	JA04(32),J04A(12);
RXMD CH17	JA04A(14),J04(34);
RXMD CH18	JA04(36),J04A(16);
RXMD CH19	JA04(38),J04A(18);
RXMD CH20	JA04(40),J04A(20);
RXMD CH21	JA04A(22),J04(42);
RXMD CH22	JA04A(24),J04(44);
RXMD CH23	JA04(46),J04A(26);
RXMD CH24	JA04A(28),J04(48);
RXMD CH25	JA04A(30),J04(50);
RXMD CH_0	JA04(20),P19C(18);
RXMD CH_1	P01C(18),J04(02);
RXMD CH_2	JA04(04),P03C(18);
RXMD CH_3	JA04(06),P05C(18);
RXMD CH_4	JA04(08),P07C(18);
RXMD CH_5	JA04(10),P09C(18);
RXMD CH_6	JA04(12),P11C(18);
RXMD CH_7	JA04(14),P13C(18);
RXMD CH_8	JA04(16),P15C(18);
RXMD CH_9	JA04(18),P17C(18);
TDCLK CH_0	P20A(23),P19A(23);
TDCLK CH_1	P01A(23),P02A(23);
TDCLK CH_2	P03A(23),P04A(23);
TDCLK CH_3	P06A(23),P05A(23);
TDCLK CH_4	P07A(23),P08A(23);
TDCLK CH_5	P09A(23),P10A(23);
TDCLK CH_6	P11A(23),P12A(23);

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TDCLK CH_7	P14A(23),P13A(23);
TDCLK CH_8	P16A(23),P15A(23);
TDCLK CH_9	P18A(23),P17A(23);
TXA CH_0	P19A(31),P20A(31);
TXA CH_1	P01A(31),P02A(31);
TXA CH_2	P04A(31),P03A(31);
TXA CH_3	P05A(31),P06A(31);
TXA CH_4	P07A(31),P08A(31);
TXA CH_5	P10A(31),P09A(31);
TXA CH_6	P11A(31),P12A(31);
TXA CH_7	P14A(31),P13A(31);
TXA CH_8	P16A(31),P15A(31);
TXA CH_9	P18A(31),P17A(31);
TXD CH_0	P19C(24),P20C(24);
TXD CH_1	P01C(24),P02C(24);
TXD CH_2	P04C(24),P03C(24);
TXD CH_3	P06C(24),P05C(24);
TXD CH_4	P08C(24),P07C(24);
TXD CH_5	P09C(24),P10C(24);
TXD CH_6	P12C(24),P11C(24);
TXD CH_7	P13C(24),P14C(24);
TXD CH_8	P15C(24),P16C(24);
TXD CH_9	P18C(24),P17C(24);
XTCLK CH_0	P19A(22),P20A(22);
XTCLK CH_1	P02A(22),P01A(22);
XTCLK CH_2	P04A(22),P03A(22);
XTCLK CH_3	P06A(22),P05A(22);
XTCLK CH_4	P07A(22),P08A(22);
XTCLK CH_5	P10A(22),P09A(22);
XTCLK CH_6	P11A(22),P12A(22);
XTCLK CH_7	P14A(22),P13A(22);
XTCLK CH_8	P15A(22),P16A(22);
XTCLK CH_9	P17A(22),P18A(22);

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