



**Model 560-5283
RJ11 RS485/422 Input Interface Manual**

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SECTION ONE

1. GENERAL INFORMATION

1.1. PURPOSE OF EQUIPMENT

The TrueTime Model 560-5283 RJ11 RS485/422 Input Interface provides the input interface for a compatible front function card. The three \pm Inputs are fed directly through the backplane connector to the front function card. The input signals are connected to the three RJ11 connectors at the rear panel for use in differential mode with 120 ohm balanced termination. There are four ground pins associated with each \pm Input.

1.1.1. PHYSICAL SPECIFICATIONS

Dimensions: 0.8 in width x 4.4 in height x 5.0 in depth
(2 cm x 11 cm x 13 cm)
Weight: Approximately $\frac{1}{2}$ pound ($\frac{1}{4}$ kg)

1.1.2. ENVIRONMENTAL SPECIFICATIONS

Operating Temp: 0° to +50°C
Storage Temp: -40° to +85°C
Humidity: Up to 95% relative, non-condensing
Cooling Mode: Convection

1.1.3. POWER REQUIREMENTS

Power: 150mA

1.1.4. FUNCTIONAL SPECIFICATIONS

1.1.4.1. INPUT CONNECTOR

Type:	RJ11				
Quantity:	3				
Pinout:					
Pin 1	GND	Pin 3	-Input	Pin 5	GND
Pin 2	GND	Pin 4	+Input	Pin 6	GND

1.1.4.2. DRC CARD COMPATIBILITY

Location: Slot 1-17 with compatible function card in front slot.
Compatibility: See Card Compatibility Matrix.

SECTION TWO

2. INSTALLATION AND OPERATION

2.1. HOT-SWAPPING

All cards, input cables and output cables are hot swappable. It is not necessary to remove chassis power during insertion or removal. The system is designed to protect against permanent effects and minimize any temporary effects of hot swapping.

2.2. REMOVAL AND INSTALLATION

CAUTION: Individual components on this card are sensitive to static discharge. Use proper static discharge procedures during removal and installation.

Refer to CARD COMPATIBILITY section prior to installing new card.

To remove card, loosen the captive retaining hardware at the top and bottom of the assembly, then firmly pull on the handle (or on any connector on rear panel adapter cards) at the bottom of the card. Slide the card free of the frame. Refer to the SETUP section for any required switch settings; or, set them identically to the card being replaced. Reinstall the card in the frame by fitting it into the card guides at the top and bottom of the frame and sliding it in slowly, avoiding contact between bottom side of card and adjacent card front panel, until it mates with the connector. Seat card firmly to avoid contact bounce. Secure the retaining screws at the top and bottom of the card assembly.

2.3. SETUP

This card has no setup requirements.

2.4. FAULT INDICATION

This card has no fault indication.

2.5. MAINTENANCE

This card has no maintenance requirements.

SECTION THREE

3. THEORY OF OPERATION

3.1. GENERAL INFORMATION

This section contains a detailed description of the circuits in the Active Input card. These descriptions should be used in conjunction with the drawings in SECTION FOUR.

3.2. HARDWARE DESCRIPTION

The Active Input card incorporates three 6-pin RJ11 connectors. Each set of connector pins includes a complementary \pm Input pair with ground pins on either side for shielding and impedance-control within the cable.

3.3. DETAILED DESCRIPTION

Refer to drawing 560-5283. The RS485/422 differential input signals are converted to TTL signals that can be routed to the backplane on IN1-IN8 via jumpers JP1-JP3.

SECTION FOUR

4. DETAILED DRAWINGS

4.1. 560-5283 DETAILED DRAWINGS / BILL OF MATERIALS

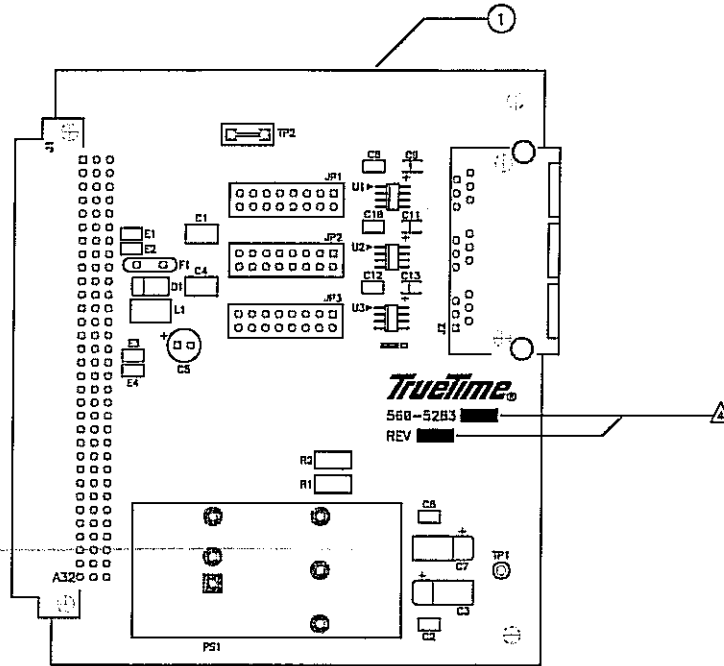
NOTES: UNLESS OTHERWISE SPECIFIED

1. ASSEMBLE PER ASSEMBLY REQUIREMENTS DOCUMENT 421-11.
2. RESISTOR VALUES IN OHMS, CAPACITORS IN MICRO FARADS.
3. POLARIZED CAPACITORS ARE SHOWN WITH A ROUNDED EDGE INDICATING THE POSITIVE SIDE.

⚠ STAMP REVISION LEVEL AND ASSEMBLY NUMBER.

REVISIONS

REV	DESCRIPTION	DATE	APPROVED
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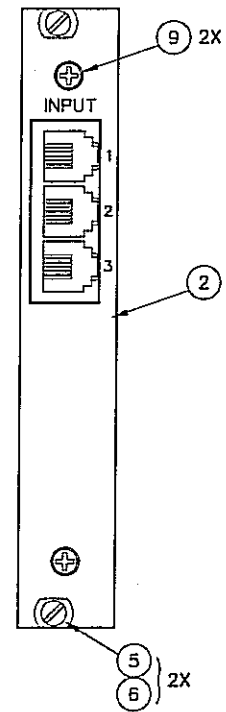
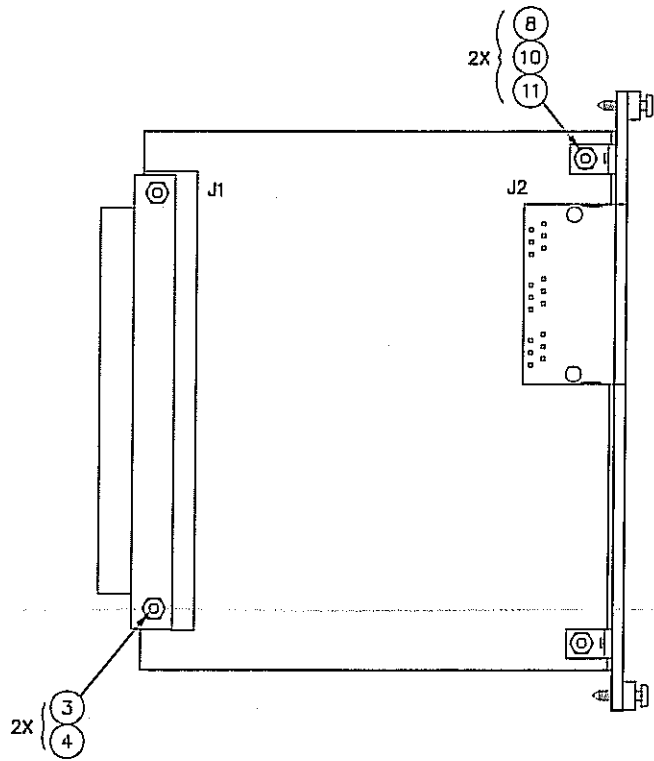


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CONTRACT NO.		DATE
APPROVALS		
DRAWN BY	B.A.S.	08/16/00
CHECKED	<i>[Signature]</i>	8/21/00
APPROVED	<i>[Signature]</i>	8/00

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Title			56K RS-422 (X3) INTERFACE ASSEMBLY DRAWING		
Size	Number	Rev			
B	560-5283	01			
Date	Fri Aug 18, 2000 10:53:44	Drawn by	B.A.S.		
Filename	2283-01.FCB	Sheet	1 of 3		



FILENAME: \560\5283
DATE: 08-24-00

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SIZE	CODE IDENT NO.	DRAWING NO.	REV
B		560-5283	01
SCALE NONE		SHEET 2 OF 3	

Parent Item	Parent Description	Batch	Quantity	Bubble	Effective							
Component Item	Component Description	Quantity	Per	UM	Seq No	Remarks	Level	Ty	Seq	T	From	Thru
560-5283	ASSY 56K REAR CONN RS422			EA	Type	M	Draw					
0000-PL	PARTS LIST REV LEVEL	1.00		EA		REV 01 (08-24-00)	1	S	2.0	M	1/1/00	12/31/10
0000-PRINT	REFERENCE PRINT	1.00		EA		560-5283 REV 01	1	S	3.0	M	1/1/00	12/31/10
0000-REV	PCB REV LEVEL HERE >>>>	1.00		EA		560-2283 REV 01	1	S	4.0	M	1/1/00	12/31/10
003S-1000	RES 2010 100 OHM 1% 1/2W	2.00		EA			1	S	32.0	P	8/24/00	12/31/10
023-010-100	R1 R2 CAP AE 10UF 100V R	1.00		EA			1	S	26.0	P	8/24/00	12/31/10
036S-NPO102	C5 CAP .001UF NPO 100V 0805	2.00		EA			1	S	22.0	P	8/24/00	12/31/10
036S-X7R103	C2 C6 CAP .01UF X7R 50V 0805	3.00		EA			1	S	21.0	P	8/24/00	12/31/10
036S-X7R104	C10 C12 C8 CAP .1UF X7R 100V 1210	2.00		EA			1	S	23.0	P	8/24/00	12/31/10
037S-225-TL	C1 C4 CAP TAN 2.2UF 16V 20% SZA	3.00		EA			1	S	24.0	P	8/24/00	12/31/10
037S-686	C11 C13 C9 CAP 68UF 6.3V 7343	2.00		EA			1	S	25.0	P	8/24/00	12/31/10
041S-001	C3 C7 FERRITE CHIP 150 OHM	4.00		EA			1	S	28.0	P	8/24/00	12/31/10
045S-1.8	E1 E2 E3 E4 INDUCTOR 1.8UH 1812	1.00		EA			1	S	29.0	P	8/24/00	12/31/10
057S-4002	L1 DIODE 4002	1.00		EA			1	S	18.0	P	8/24/00	12/31/10
176S-LTC490CS8	D1 RS-422 DIFF DRVR/RCVR	3.00		EA			1	S	30.0	P	8/24/00	12/31/10

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Single Level Bill of Material Report

Date - 8/24/00
Time - 17:13:06
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Parent Item Component Item	Parent Description Component Description	Batch Quantity			UM	Bubble		Remarks	Effective					
		U1	U2	U3		Quantity Per	Seq No		Level	Ty	Seq	T	From	Thru
208-001	BRACKET UNIV L SHAPE				2.00	EA	10		1	S	36.0	P	8/24/00	12/31/10
223-138	SCREW SH CH ZN M2.5X10				2.00	EA	3		1	S	6.0	P	1/1/00	12/31/10
223-144	NUT M2.5				2.00	EA	4		1	S	7.0	P	1/1/00	12/31/10
223-379	SCREW CAP NP M2.5 X 11				2.00	EA	5		1	S	8.0	P	1/1/00	12/31/10
223-464	SLEEVE, STAINLESS				2.00	EA	6		1	S	9.0	P	1/1/00	12/31/10
240-004-002	SCREW PH PN SS 4-40X1/4				2.00	EA	11		1	S	37.0	P	8/24/00	12/31/10
241-004-002	SCREW PH FH SS 4-40X1/4				2.00	EA	9		1	S	35.0	P	8/24/00	12/31/10
251-004	NUT KEP SS 4-40				2.00	EA	8		1	S	38.0	P	8/24/00	12/31/10
273-009	TERMINAL TEST POINT				1.00	EA			1	S	34.0	P	8/24/00	12/31/10
273-015	TERM TEST POINT (WHITE)				1.00	EA			1	S	33.0	P	8/24/00	12/31/10
355-BXA10-1	DC-DC 18-75VIN +5/-5 OUT				1.00	EA			1	S	27.0	P	8/24/00	12/31/10
363-0.9LV	POLYSWITCH 0.9A (60 VOLT)				1.00	EA			1	S	31.0	P	8/24/00	12/31/10
372-96RA	CONN,96-P FM DIN RT ANGLE				1.00	EA			1	S	11.0	P	1/1/00	12/31/10
376-003	JACK,PC MT 3-6P RJ11				1.00	EA			1	S	20.0	P	8/24/00	12/31/10
401-01-02-30	HEADER 60-P DBL ROW				3.00	EA			1	S	19.0	P	8/24/00	12/31/10

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Single Level Bill of Material Report

Parent Item	Parent Description	Batch Quantity	Bubble	Level	Ty	Seq	T	Effective
Component Item	Component Description	Quantity Per	UM	Seq No	Remarks	From	Thru	
	JP1 JP2 JP3							
560-1284	PNL,REAR RS485/422 IN/RJ11(X3)	1.00	EA	2		1 S 17.0	P	8/24/00 12/31/10
560-2283	PCB REAR CONN RS422	1.00	EA	1		1 S 16.0	P	8/24/00 12/31/10