



**Model 560-5141-4
DB25 Passive Output Interface Manual**

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SECTION ONE

1. GENERAL INFORMATION

1.1. PURPOSE OF EQUIPMENT

The TrueTime Model 560-5141-4 DB25 Passive Output Interface provides the output interface for a compatible front function card. The six pairs of \pm Outputs are fed directly through the backplane connector from the front function card. The output signals are distributed via controlled impedance traces to a DB25F connector at the rear panel for use in differential mode with 100-120 ohm balanced conductors/ termination or in single-ended mode with 50 ohm conductors/termination.

1.1.1. PHYSICAL SPECIFICATIONS

Dimensions: 0.8"w X 4.4"h X 5.0"d (2 cm X 11 cm X 13 cm)
Weight: Approximately ½ pound (¼ 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: None

1.1.4. FUNCTIONAL SPECIFICATIONS

1.1.4.1. OUTPUT CONNECTOR

Type: DB25F
Description: 25-position "D" connector, female
Quantity: 1
Pinout:

Pin 1-13	GND		
Pin 14	+A Out	Pin 15	-A Out
Pin 16	+B Out	Pin 17	-B Out
Pin 18	+C Out	Pin 19	-C Out
Pin 20	+D Out	Pin 21	-D Out
Pin 22	+E Out	Pin 23	-E Out
Pin 24	+F Out	Pin 25	-F Out

1.1.4.2. CARD COMPATIBILITY

Location: Slot 1-17 with compatible 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 Passive Output card. These descriptions should be used in conjunction with the drawings in SECTION FOUR.

3.2. HARDWARE DESCRIPTION

The Passive Output card incorporates one 25-position female "D" connector (DB25F). There are 13 GND pins and 12 signal pins.

3.3. DETAILED DESCRIPTION

Reference drawing 560-5141-4. Each connector pin is sourced via the backplane connector from individual drivers on the front function card via 50 ohm controlled-impedance traces on the Passive Output card. The card is optimized for differentially-driving a pair of wires with 100-120 ohm characteristic impedance or for driving a 50 ohm conductor with a single-ended signal.

SECTION FOUR

4. DETAILED DRAWINGS

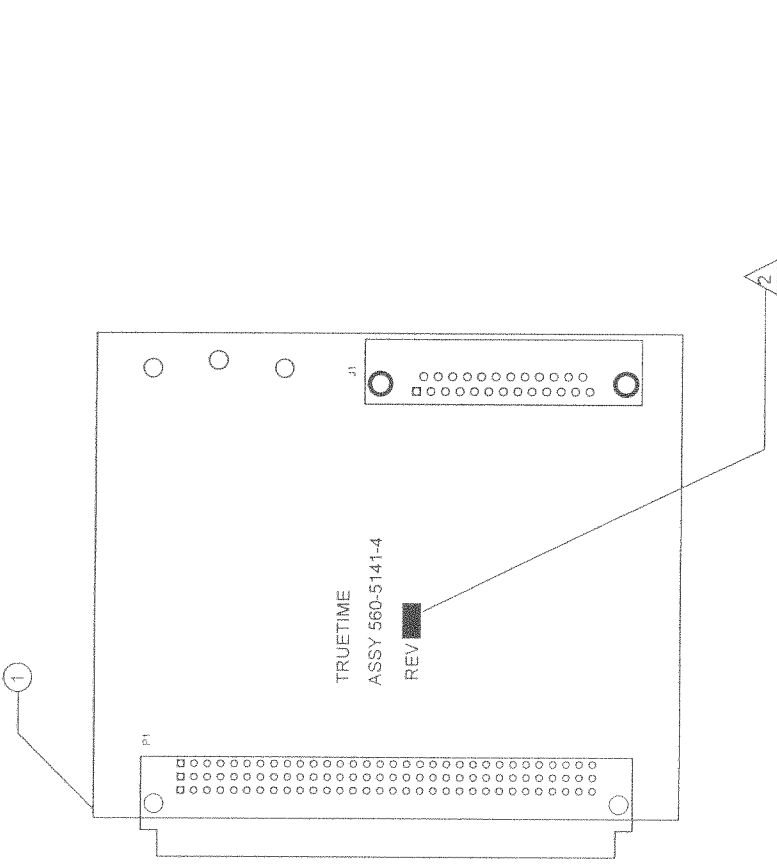
4.1. 560-5141-4 DETAILED DRAWINGS / BILL OF MATERIALS

NOTES: UNLESS OTHERWISE SPECIFIED

1. RESISTORS ARE IN OHMS AND CAPACITORS ARE IN MICRO FARADS.

2. STAMP REVISION LEVEL.

3. ASSEMBLE PER ASSEMBLY REQUIREMENTS
DOCUMENT 421-11.



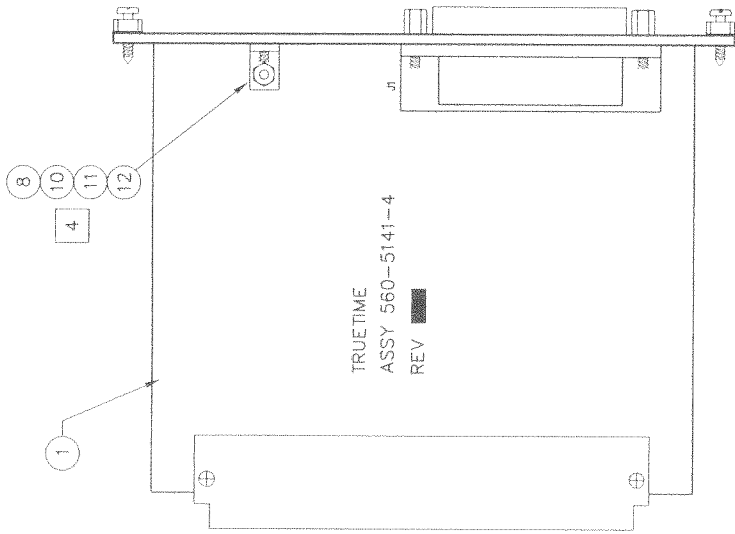
REVISIONS

LTR	DESCRIPTION	DATE	APPROVED
A	CHANGED REAR PANEL	03-20-98	[Signature]

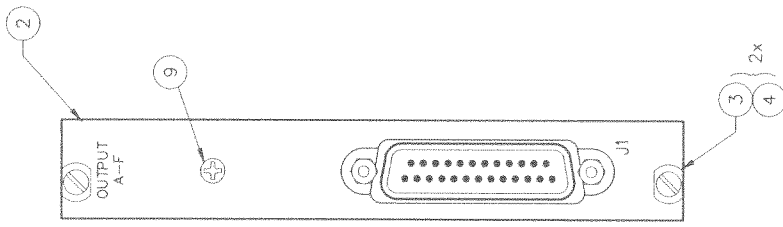
TrueTime, Inc.
Santa Rosa, California

Title	ASSY DRAWING
Contract No.	PASSIVE OUTPUT INTERFACE, DB25
Drawn By	S.B.K.
Checked	[Signature]
Approved	[Signature]
Next Assy	[Signature]
Date	03-20-98
Size	B
Number	560-5141-4
Rev	A
Filename	2141-4.PCB
Sheet	1 of 3

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TRUE TIME
 ASSY 560-5141-4
 REV



4 ORIENT L BRACKET (ITEM 10) AS SHOWN.
 NOTES: (Cont')

 <small>"We're Customer Satisfaction is our highest priority." 2835 Dixie Ct. Santa Rosa, CA 95407</small>		REV
SIZE	CODE IDENT NO. DRAWING NO.	560-5141-4 A
B	SCALE NONE	
NEXT ASSY		SHEET 2 OF 3
FILENAME: \560\5141-4		
DATE: 03-20-98		

MAX * BILL OF MATERIALS * SINGLE-LEVEL EXPLOSION BY PART IDENTIFIER W/REFERENCE

PART IDENTIFIER	DESCRIPTION 1	DESCRIPTION 2	EFF DATE	ECN #	QTY/ASSY	UOM	REV LVL	REFERENCE DESCRIPTION
560-5141-4	PASSIVE OUT INTFC,DB25	MADE FROM 560-2141-4					EA	
0000-APPROVAL	PARTS LIST APPROVAL		0000		1.0000		EA	<i>Curtis 4-3-98</i>
0000-PL	PARTS LIST REV LEVEL		0000		1.0000		EA	REV A (04-03-98)
0000-PRINT	REFERENCE PRINT		0000		1.0000		EA	560-5141-4 REV A
0000-REV	PCB REV LEVEL HERE >>>>		0000		1.0000		EA	560-2141-4 REV 01
208-001	BRACKET UNIV L SHAPE	KEYSTONE 612	0000		1.0000		EA	10
223-379	SCREW CAP NP M2.5 X 11	SCHROFF #21100-379	0000		2.0000		EA	03
223-464	SLEEVE, STAINLESS	SCHROFF 21100-660	0000		2.0000		EA	04
240-004-002	SCREW PH PN SS 4-40X1/4	SCREW PAN	0000		1.0000		EA	11
241-004-003	SCREW PH FH SS 4-40X3/8	BUY/USE 100 DEGREE ONLY	0000		1.0000		EA	09
252-004	NUT HEX SP SS 4-40	STAINLESS STEEL	0000		1.0000		EA	08
254-.312	WSHR SPLIT #4 SS	STAINLESS	0000		1.0000		EA	12
372-25SR	CONN 25-P RIGHT ANGLE	LZR #WD 25F-A4A0(OR A480)	0000		1.0000		EA	J1
372-96RA	CONN,96-P FM DIN RT ANGLE	BERG 68353-296	0000		1.0000		EA	P1
560-1249	PANEL,REAR DB25	FAB/SCREEN	0000		1.0000		EA	02
560-2141-4	PCB REAR CONN DB25	FAB	0000		1.0000		EA	01
LA	LABOR ASSEMBLY COST HRS		0000		0		EA	
LT	LABOR TEST COST HOURS		0000		0		EA	
OSV560-5141-4	OUTSIDE LABOR 560-5141-4	PCA	0000		1.0000		EA	