



**Model 560-5141-1
BNC Passive Output Interface
Manual**

SECTION ONE

- 1. FUNCTIONAL DESCRIPTION
 - 1.1. PURPOSE OF EQUIPMENT
 - 1.1.1. PHYSICAL SPECIFICATIONS
 - 1.1.2. ENVIRONMENTAL SPECIFICATIONS
 - 1.1.3. POWER REQUIREMENTS
 - 1.1.4. FUNCTIONAL SPECIFICATIONS

SECTION TWO

- 2. INSTALLATION AND OPERATION
 - 2.1. HOT-SWAPPING
 - 2.2. REMOVAL AND INSTALLATION
 - 2.3. SETUP
 - 2.4. FAULT INDICATION
 - 2.5. MAINTENANCE

SECTION THREE

- 3. THEORY OF OPERATION
 - 3.1. GENERAL INFORMATION
 - 3.2. HARDWARE DESCRIPTION
 - 3.3. DETAILED DESCRIPTION

SECTION FOUR

- 4. DETAILED DRAWINGS
 - 4.1. 560-5141-1 DETAILED DRAWINGS / BILL OF MATERIALS

SECTION ONE

1. FUNCTIONAL DESCRIPTION

1.1. PURPOSE OF EQUIPMENT

The TrueTime Model 560-5141-1 BNC Passive Output Interface provides the output interface for a compatible front function card. The 6+ Outputs are fed directly through the backplane connector from the front function card. The output signals are distributed via 50 Ohm traces to 6 BNC connectors at the rear panel, optimized for use in single-ended mode with 50 Ohm-to-ground 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: BNC
Quantity: 6

1.1.4.2. 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 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 6 BNC output connectors with local control of over-shoot and under-shoot.

3.3. DETAILED DESCRIPTION

Reference drawing 560-5141-1. Each BNC connector 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.

SECTION FOUR

4. DETAILED DRAWINGS

4.1. 560-5141-1 DETAILED DRAWINGS / BILL OF MATERIALS

NOTES: UNLESS OTHERWISE SPECIFIED

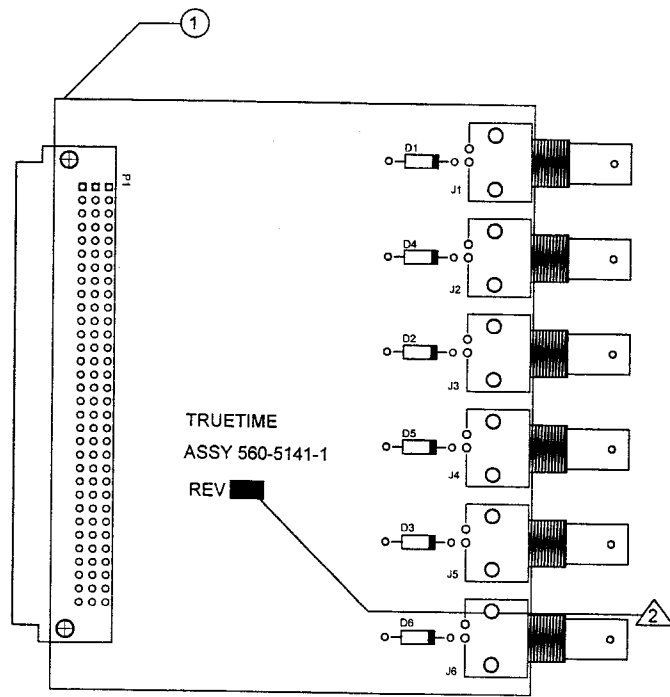
1. RESISTORS ARE IN OHMS, CAPACITORS ARE IN MICRO FARADS

2. STAMP REVISION LEVEL.

3. ASSEMBLE PER ASSEMBLY REQUIREMENTS
DOCUMENT 421-11.

4. DO NOT INSTALL D1-6.

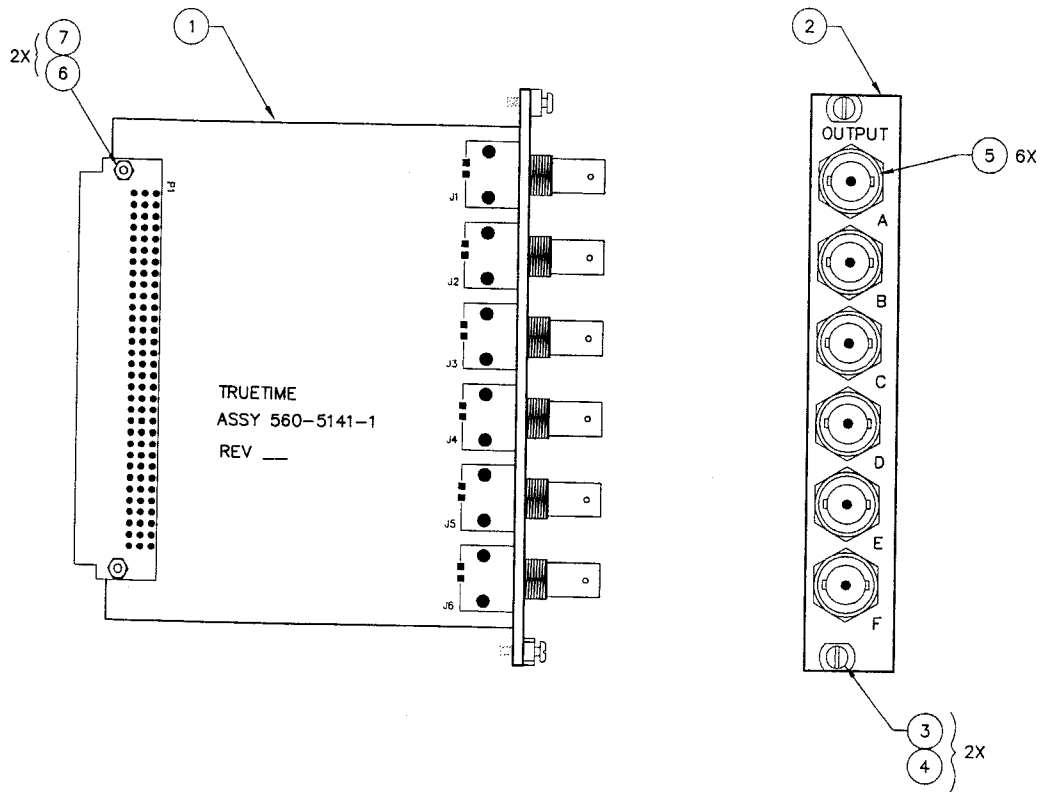
REVISIONS			
LTR	DESCRIPTION	DATE	APPROVED
A	MOVE BNC'S BACK .030"	7-19-96	
B	ADD DIODES; GND PINS AT P1	10-31-96	
C	INCREASED GROUND PLANE	5-21-97	



© TrueTime, Inc. PROPRIETARY NOTICE
 THIS DOCUMENT, WHETHER PATENTABLE OR NON-PATENTABLE SUBJECT MATTER, EMBODIES PROPRIETARY AND CONFIDENTIAL INFORMATION AND IS THE EXCLUSIVE PROPERTY OF TRUETIME, INC. IT MAY NOT BE REPRODUCED, USED OR DISCLOSED TO OTHERS FOR ANY PURPOSE EXCEPT THAT FOR WHICH IT IS LOANED, AND IT SHALL BE RETURNED UPON DEMAND.

CONTRACT NO.	
APPROVALS	DATE
DRAWN BY S.B.K.	5-21-97
CHECKED	
APPROVED <i>S.B.K.</i>	5/97
NEXT ASSY	

TrueTime, Inc. Santa Rosa, California			
Title ASSY DRAWING PASSIVE OUTPUT INTERFACE, BNC			
Size	Number	Rev	
C	560-5141-1	C	
Date	5-21-97	S.B.K.	
Filename	2141-1C.PCB	Sheet	1 of 3



FILENAME: \560\5141-1B
DATE: 06-16-97

NEXT ASSY	SIZE	CODE IDENT NO.	DRAWING NO.	REV
	B		560-5141-1	C
	SCALE NONE	SHEET 2 OF 3		

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
560-5141-1	PASSIVE OUTPUT INTFC BNC	MADE FROM 560-2141-1					EA	
0000-APPROVAL	PARTS LIST APPROVAL				1.0000		EA	<u>DN 4/97</u>
0000-PL	PARTS LIST REV LEVEL				1.0000		EA	REV C (06-16-97)
0000-PRINT	REFERENCE PRINT				1.0000		EA	560-5141-1 REV C
0000-REV	PCB REV LEVEL HERE >>>>				1.0000		EA	560-2141-1 REV C
223-138	SCREW SH CH ZN M2.5X10	SCHROFF #21100-138			2.0000		EA	06
223-144	NUT M2.5	SCHROFF #21100-144			2.0000		EA	07
223-379	SCREW CAP NP M2.5 X 11	SCHROFF #21100-379			2.0000		EA	03
223-464	SLEEVE, STAINLESS	SCHROFF 21100-660			2.0000		EA	04
372-96RA	CONN,96-P FM DIN RT ANGLE	BERG 68353-296			1.0000		EA	P1
375-022	LOCKWASHER,BNC PC MT	AMP 1-329632-2			6.0000		EA	FOR J1-J6
375-023	NUT BNC PC MT	AMP 1-329631-2			6.0000		EA	
	ITEM 05 (J1-J6). DO NOT USE THE NUT THAT COMES WITH CONNECTOR.							
375-026	BNC, PCB MNT, LOW PROFILE	AMP 413879-1			6.0000		EA	J1-J6
560-1210-1	PNL,REAR (6)BNC/OUTPT INT	SCREEN			1.0000		EA	02
560-2141-1	PCB HEX OUTPUT INTFC(BNC)	FAB			1.0000		EA	01
LA	LABOR ASSEMBLY COST HRS				0		EA	
LT	LABOR TEST COST HOURS				0		EA	
NOTE 1					1.0000		EA	DO NOT INSTALL D1-D6
OSV560-5141-1	OUTSIDE LABOR 560-5141-1	PCA			1.0000		EA	