

**DIGITAL CLOCK DISTRIBUTOR
DCD-400, DCD-ST2, AND DCD-CIM
INTERCONNECT DRAWINGS**

1. GENERAL

1.01 This practice provides interconnect wiring diagrams of Telecom Solutions' Digital Clock Distributor (DCD) 400, ST2, and CIM Systems. For more installation information, refer to TMSL 097-40000-57, DCD Installation.

1.02 This practice has been reissued due to editorial changes. No change bars are used.

ENGINEERING NOTES:

51. THIS DRAWING IS MADE IN ACCORDANCE WITH INFORMATION SHOWN ON TELECOM SOLUTIONS PRACTICES TMSL 098-40000-10 AND TMSL 097-40000-10 ISSUE 2 DATED JAN. 1988.

CHANGES OR REVISIONS MADE TO THE ABOVE DOCUMENTS ARE TO BE NOTED ON THIS DRAWING WITH APPROPRIATE SUBSEQUENT ISSUE NOTES REFLECTING THE CHANGES AND THE DATE OF SUCH CHANGES.

52. PROVIDE FOR INSTALLATIONS WHERE TIMING SUPPLY IS BRIDGED FROM THE DS1 X-CONN. AND USING DCD INTERNAL BRIDGING REPEATER. CAN BE UP TO 655' FROM DSX-1 USING DCD INTERNAL BRIDGING REPEATER.

53. FOR INSTALLATIONS WHERE THE TIMING SUPPLY IS TERMINATED (NOT BRIDGED) ON THE DS1 X-CONN. OR FROM AN EXTERNAL BRIDGING REPEATER OUTPUT, THE DCD CAN BE UP TO 655' FROM DSX-1.

54. PROVIDE AN EDIC544-30 G-47 (T99503-31 FIG. 89, 92) DSX-1 AUX. MAINT. LINE PNL TO BE OBTAINED FROM A.T.&T. TECH., OR ANOTHER VENDOR'S APPROVED EQUIVALENT FOR TERMINATING THE DS-1 IN (T,R,T1,R1) LEADS AT A DSX BAY.

55. PROVIDE 2 ED2C497-30 G-1, B, C & A 231F TYPE REPEATER (T99503-31 FIG. L120) BRIDGING REPEATER TO BE OBTAINED FROM A.T.& T. TECH., OR ANOTHER VENDOR'S APPROVED EQUIVALENT WHEN BRIDGING REPEATERS ARE REQUIRED.

USE SEPARATE BRIDGING REPEATER SHELVES, ONE SHELF POWERED FROM -48V(A) AND THE OTHER POWERED FROM -48V(B). BRIDGING REPEATERS SHALL BE PROVIDED FROM THE DSX-1 TO THE TERMINATING INPUTS OF THE DCD EQPT FOR DISTANCES FROM 85 FEET UP TO 655 FEET.

56. THESE LEADS ARE TO BE CONNECTED TO THE HIGHEST STABILITY CLOCK AVAILABLE I.E. MUST BE TRACEABLE TO A STRATUM-1 SOURCE.

57. THE BASIC 990-40000-02 DCD-ST2 IS DESIGNED FOR MODULAR GROWTH. THE BASIC (MASTER) SYSTEM IS HOUSED IN A SINGLE SHELF 14" HIGH X 12" DEEP X 23" WIDE (WITH ASSOCIATED TERMINAL STRIP) AND CONSISTS OF THE FOLLOWING PRINTED CIRCUIT CARDS:

- 1- ALARM INTERFACE (A1); 2- CLOCK INPUT (CI) CARDS (1 PLUS 1 REDUNDANT);
- 2 - STRATUM-2 CLOCK (ST2) CARDS (1 PLUS 1 REDUNDANT); 1 TO 4 TIMING OUTPUT -- CC (TOCA) OR DSI (TOTA) CARDS CONTAINING 10 OUTPUT PORTS EACH; 1 AND 2 - HOT SPARE (HS) CARDS (1 OR 2 OPTIONS, TOTA AND TOCA); 1 - MATRIX CONTROL (MCA/MCA-2) CARD.

THE CLOCK INPUT (CI) AND THE STRATUM-2 (ST2) CLOCK CARDS CONSTITUTE THE EQUIPMENT COMMON TO THE ENTIRE (MAXIMUM 4 SHELF) INSTALLATION AND NEED TO BE MOUNTED ONLY IN THE MASTER SHELF CONTAINING THE BASIC DCD SYSTEM. THE (MASTER) DCD SHELF SHALL BE MOUNTED AS SHELF 1 AND THE UPPERMOST SHELF IN A FOUR SHELF (1 MASTER 3 EXPANSIONS) ARRANGEMENT IN A BAY. EXPANSION SHELVES USE THE DCD-400 SHELF (WITHOUT COMMON EQ) (12.25" HIGH X 12" DEEP X 23" WIDE) ASSEMBLIES. ALL INTRA-SHELF CABLING IS SUPPLIED FOR MASTER TO EXPANSION CONNECTIONS.

NOTES:

1. CONVENTIONS

○ CABLE

○-----○ SHIELD CONNECTION

○- - - COAX SHIELD CONNECTION

⊗ SCREW CONNECTION

* SPLICE

○ WIRE-WRAP CONNECTION

P DENOTES PAIR

B DENOTES BASE OF TERMINAL BLOCK

E DENOTES ADJACENT ROWS ON TERMINAL BLOCK

K DENOTES FRONT OF TERMINAL BLOCK

2W DENOTES 2W CROSS-CONNECTION

EU DENOTES 22 BF TYPE SHIELDED WIRE OR CABLE

----- THROUGH INTERMEDIATE APPEARANCES.

2. ALL WIRE INCLUDING WIRES IN SWITCHBOARD CABLES SHALL BE 24 GA. UNLESS OTHERWISE SPECIFIED.

3. 22 GAUGE WIRE EQUIVALENTS:

- BELDEN 8450
- GENERAL CABLE CM22
- AT&T 22BF

ISSUE	DESCRIPTION	DATE	APPVD
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING			
DWG. SIZE		1	
DWG. NO.		097-40000-41	
APT1			SHEET 1 OF 35

ENGINEERING NOTES: (CONT'D.)

58. THE DCD-ST2 PRODUCES UP TO 340 TIMING OUTPUTS (40 ON MASTER SHELF 1 AND 100 ON EACH EXPANSION SHELF 2-4). EITHER CC OR DS1 OR A MIXTURE OF BOTH. EXTERNAL DEVICES WHICH REQUIRE THE CC SIGNAL CAN BE LOCATED AT CABLE LENGTHS OF UP TO 3,000 FEET FROM THE DCD-ST2 OR UP TO 655 FEET FOR DEVICES REQUIRING DS-1 TIMING. THESE INCLUDE D5 CHANNEL BANKS AND ADDITIONAL DCD-ST2 OR DCD-400 UNITS ARRANGED IN TANDEM.

59. CONNECTION TO THE OFFICE SOURCE TIMING IS REQUIRED FOR MASTER SHELF ONLY.

60. COMPOSIT CLOCK INPUT MAY BE USED FOR STRATUM-3 (OPTIONAL) APPLICATIONS AND FOR TANDEM CLOCK SYSTEMS ONLY.

61. CURRENT DRAIN IN AMPERES - NORMAL OPERATION

EQUIPMENT SHELF TYPE	-48V(A)	-48V(B)
FULLY EQUIPPED DCD-ST2 MASTER	1.5A MAX.	1.5A MAX. *
FULLY EQUIPPED DCD-400 MASTER	1.5A MAX.	1.5A MAX.
FULLY EQUIPPED DCD-400 SLAVE	1.3A MAX.	1.3A MAX.

* WARM-UP CURRENT DRAIN FOR ST2 MASTER SHELF IS 4A MAX. FOR APPROXIMATELY 60 MINUTES. RECOMMENDED FUSING SHOULD BE 150% OR NEAREST LARGER VALUE FUSE OF TOTAL -48A OR -48B SHELF FUSE CAPACITY.

62. THE BASIC 990-40000-01 DCD-400 IS DESIGNED FOR MODULAR GROWTH. THE BASIC (MASTER) SYSTEM IS HOUSED IN A SINGLE SHELF 10 1/2" HIGH X 12" DEEP X 23" WIDE (WITH ASSOCIATED TERMINAL STRIP) AND CONSISTS OF THE FOLLOWING PRINTED CIRCUIT CARDS:

- 1 - FUSE & ALARM CARD (FA);
- 2 - CLOCK INPUT (C-I) CARDS (1 PLUS 1 REDUNDANT);
- 2 - STRATUM 3 (ST3) OR (ST3E) CLOCK CARDS (1 PLUS 1 REDUNDANT);
- 1 TO 10 TIMING OUTPUT -- CC (TOCA) CARDS CONTAINING 10 OUTPUT PORTS;
- 1 TO 10 TIMING OUTPUT -- DS-1 (TOTA) CARDS CONTAINING 10 OUTPUT PORTS;
- 1 (OR) 2 - HOT SPARE (HS) CARDS (1 OR 2 OPTIONAL);
- 1 - MATRIX CONTROL (MCA/MCA-2) CARD.

THE CLOCK INPUT (CT) CARDS AND THE STRATUM 3 (ST3E) CLOCK CARDS CONSTITUTE THE EQUIPMENT COMMON TO THE ENTIRE (MAXIMUM 4 SHELF) INSTALLATION AND NEED TO BE MOUNTED ONLY IN THE MASTER SHELF CONTAINING THE BASIC DCD SYSTEM. THE (MASTER) DCD SHELF SHALL BE MOUNTED AS SHELF 1 AND THE UPPERMOST SHELF IN A FOUR SHELF (1 MASTER, 3 SLAVES) ARRANGEMENT IN A BAY.

63. THE DCD-400 PRODUCES UP TO 400 TIMING OUTPUTS (100 ON EACH OF SHELVES 1 TO 4), EITHER CC OR DS1 OR A MIXTURE OF BOTH. EXTERNAL DEVICES WHICH REQUIRE THE CC SIGNAL CAN BE LOCATED AT CABLE LENGTHS OF UP TO 3,000 FEET FROM THE DCD-400, OR UP TO 655 FEET FOR DEVICES REQUIRING DS-1 TIMING. ADDITIONAL DCD-400 UNITS ARE ARRANGED IN TANDEM.

64. CONNECTION TO THE OFFICE SOURCE TIMING IS REQUIRED FOR THE MASTER SHELF ONLY.

65. TERMINAL BLOCK MODIFICATION KIT ALLOWS SEPARATION OF BATTERY RETURN LEADS.

66. THE MODULAR MOUNTING PANEL IS DESIGNED TO MOUNT ABOVE A STANDARD WIRE-WRAP TERMINAL PANEL OR REPLACE THE STANDARD WIRE-WRAP TERMINAL PANEL WHEN A MIXED COMPLEMENT OF TIMING OUTPUTS ARE INSTALLED IN THE DCD SHELF.

67. THE MODULAR MOUNTING PANEL CAN BE EQUIPPED WITH UP TO 10 MODULES OF WIRE-WRAP, SCIU, BNC OR DB9. EACH MODULE SHOULD CORRESPOND TO A TIMING OUTPUT INSTALLED IN THE DCD SHELF.

MODULE	USED WITH
WIRE-WRAP	TOCA TOTA TOLA
SCIU	SCIU
BNC	TOAA
DB9	TOLA

ONE MODULE IS REQUIRED PER TIMING OUTPUT

68. ALL CONNECTORS ON THE MODULES ARE EITHER WIRE-WRAP PINS OR FEMALE CONNECTORS.

69. CONNECT FRAME GROUND TO TB1 AND TB2 USING 16 GAUGE STRANDED WIRE.

70. RIBBON INTERCONNECT CABLES ARE PROVIDED WITH EACH MODULE KIT.

ISSUE	DESCRIPTION	DATE	APPROV
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING		RATING	
TELECOM SOLUTIONS		DWG. SIZE	ISSUE
AP72		DWG. NO. 097-40000-41	SHEET 2 OF 35

ENGINEERING NOTES: (CONT'D.)

- 71. PROVIDE ONE FIG. 20 FOR EACH TOCA OR TOTA.
 PROVIDE ONE FIG. 21 FOR EACH SCIU.
 PROVIDE ONE FIG. 22 FOR EACH TOAA.
 PROVIDE ONE FIG. 23 FOR EACH TOLA WITH RS-422 TERMINATIONS.
 PROVIDE ONE FIG. 24 FOR EACH TOLA WITH TTL TERMINATIONS.
- 72. PROVIDE OFFICE WIRING RECORDS IN ACCORDANCE WITH TABLES AA THROUGH EE.
- 73. THE BASIC 990-40000-06 DCD-CIM IS DESIGNED FOR MODULAR GROWTH.
 THE BASIC (MASTER) SYSTEM IS HOUSED IN A SINGLE SHELF 14" HIGH X 12" DEEP X 23" WIDE (WITH ASSOCIATED WIRE-WRAP TERMINAL PANEL) AND CONSISTS OF THE FOLLOWING PRINTED CIRCUIT CARDS:
 1 FUSE & ALARM CARD (FA), 2 CLOCK INPUT CARDS (CI), 2 STRATUM-3 CLOCK CARDS (OPTIONAL) AND FROM 1 TO 12 SYNCHRONOUS CLOCK INSERTION UNITS (SCIU).
 THE CLOCK INPUT CARDS (CI) AND STRATUM-3 CLOCKS CONSTITUTE THE EQUIPMENT COMMON TO THE ENTIRE (MAXIMUM 4 SHELF) INSTALLATION AND NEED BE MOUNTED ONLY IN THE MASTER SHELF CONTAINING THE BASIC SYSTEM. THE MASTER SHELF SHALL BE MOUNTED AS SHELF 1 AND THE UPPERMOST SHELF IN A FOUR SHELF (1 MASTER AND 3 EXPANSION) ARRANGEMENT IN A BAY.
- 74. THE DCD-CIM MAY ALSO BE AN EXPANSION SHELF FROM AN EXISTING DCD INSTALLATION WHERE THE FOUR SHELF MAXIMUM HAS NOT BEEN REACHED.
- 75. CONNECTION TO THE OFFICE SOURCE TIMING IS REQUIRED FOR THE MASTER SHELF ONLY (THE FIRST 12 SCIU CARDS).
 76. CURRENT DRAIN IN AMPERES:

<u>EQUIPMENT SHELF TYPE</u>	-48V(A)	-48V(B)
FULLY EQUIPPED DCD-CIM MASTER	1.5A MAX.	1.5A MAX.
FULLY EQUIPPED DCD-CIM EXPANSION	1.3A MAX.	1.3A MAX.
- 77. PROVIDE WIRING RECORDS FOR EXTERNAL DEVICES IN ACCORDANCE WITH INFORMATION IN TABLE E.
- 78. OFFICE ALARMS MAY BE CONNECTED IN DAISY-CHAIN FASHION FROM SHELF 1 THROUGH 4. DO NOT "DAISY-CHAIN" ACO.
- 79. REFER TO SD 97807-01 OR SD 99503-01 FOR EQUIPMENT CONNECTION DETAILS.
- 80. BLANK PANELS FOR CI AND ST3 POSITIONS MAY BE EQUIPPED AS REQUIRED FOR SHELVES 2, 3 AND 4.
- 81. CONNECTION TO DSX-1 CAN BE UP TO 655' FEET.

ENGINEERING NOTES: (CONT'D)

- 82. FOR MOUNTING APPLICATIONS THE SCIU OFFERS A HIGH IMPEDANCE INTERFACE, CONNECTION TO DS1 FACILITIES THROUGH DSX-1 FS56 OR FS4, OR 432 OHM RESISTORS (MONITOR JACK). CAN BE UP TO 655' FEET FROM DSX-1.
- 83. PROVIDE OFFICE WIRING RECORDS FOR EXTERNAL DEVICES (D4, D5, SLC, ETC.) IN ACCORDANCE WITH INFORMATION IN TABLE(S) B-E.
- 84. IF SHIELD IS GROUNDED AT SWITCH OR DACS DO NOT CONNECT THE S LEAD (DC FRAME GROUND). CONNECT SHIELD TO DC FRAME GROUND ON ONE END OF CABLE ONLY, NORMALLY GROUND AT SIGNAL SOURCE END (DCD S LEAD).
- 85. DS1 REFERENCE SHOULD BE TRACEABLE TO BSRF STRATUM-1 SOURCE.
- 86. BRIDGING RESISTORS (422 OHMS) ARE PROVIDED WITH INSTALLATION KIT.
- 87. BLANK PANELS ARE RECOMMENDED FOR UNUSED COMMON EQUIPMENT SLOTS. P/N 970-00014-01,4 EACH FOR EACH DCD-400, SHELF AND P/N 970-00014-02 IF DCD-ST2 MASTER SHELF IS EQUIPPED WITH STRATUM-3 CLOCK, AND P/N 090-40098-01, BLANK PLUG-IN FOR UNUSED OUTPUT SLOTS.
- 88. IF MASTER SHELF IS EQUIPPED WITH EITHER ONE OR TWO OPTIONAL STRATUM-3 CLOCKS, SW1 MUST BE SWITCHED TO THE ST 3 POSITION.
- 89. ST2 A (TB11) AND B (TB12) STATUS INDICATOR LEADS AND REMOTE TRANSFER (TB14) NOT REQUIRED FOR ST3 APPLICATIONS.
- 90. PROVIDE OFFICE ALARM/SYSTEM STATUS CONNECTIONS. (TB2 & TB3) FOR EACH SHELF (MASTER AND EXPANSIONS). WIRING MAY BE "DAISY CHAINED" FROM SHELF TO SHELF. DO NOT CONNECT ACO RTN (PIN 14).
- 91. SW 3 PROVIDES EITHER MAJOR OR MINOR OFFICE ALARM OPTION FOR BATTERY/FUSE ALARM AND TWO STRATUM-2 CLOCKS BEING IN HOLDOVER STATUS.
- 92. S LEAD IS CAPACITIVE GROUND (NOT DC FRAME GROUND).
- 93. WARN & WARN RTN SHOULD NOT BE CONNECTED, THERE IS NO WAY TO RESET OR CLEAR THE ALARM.
- 94. IF GROUND IS APPLIED TO ACO RTN LEAD SHELF POWER IS LOST IF FA CARD IS REMOVED.

ISSUE	DESCRIPTION	DATE	APPROV
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		RATING	
		DWG. SIZE	ISSUE
		DWG. NO. 097-40000-41	SHEET 3 of 35
APT3			

-48V BATTERY FEEDS AND GROUND CONNECTIONS

(SEE NOTES 61, 65, & 76)

TABLE A		DWG SHEET
FIG.	FEATURES	REMARKS
1	FURNISH 1 PER MASTER OR EXPANSION SHELF	
1A	OPTIONALLY PROVIDE ONE EACH TO DCD SHELF TO SEPARATE THE BATTERY RETURN LEADS.	
2	FURNISH 1 PER MASTER OR EXPANSION SHELF WHEN POWER IS PROVIDED FROM A MISC. FUSE PANEL.	
3	FURNISH 1 PER (4) SHELF ARRANGEMENT	
4	FURNISH 1 PER (4) SHELF ARRANGEMENT	
5	FURNISH 1 PER (4) SHELF ARRANGEMENT	
6	FURNISH 1 PER (4) SHELF ARRANGEMENT	
7	FURNISH 1 PER FIG 5 FOR FRAME TERMINATION	
8	FURNISH 1 PER FIG 6 FOR FRAME TERMINATION	
9	FURNISH 1 PER MASTER SHELF WHEN A BRIDGING REPEATER IS NOT REQUIRED	
10	FURNISH 1 PER FIG 9 FOR FRAME TERMINATION	
11	FURNISH 1 PER MASTER SHELF WHEN A BRIDGING REPEATER IS REQUIRED	
12	FURNISH 1 PER FIG 12 FOR FRAME TERMINATION	
13	FURNISH 1 PER MASTER SHELF ONLY WHEN OFFICE CLOCK CONNECTION IS REQUIRED (FOR STRATUM-3 APPLICATIONS ONLY)	
13A	FURNISH 1 PER FIG 13 OR 13A FOR FRAME TERMINATION	
14	FURNISH 1 PER DCD-ST2 MASTER SHELF	
15	FURNISH 1 PER DCD-ST2 SYSTEM EXPANSION SHELF	
16	FURNISH 1 PER DCD MASTER TO EXPANSION CONNECTION	
17	FURNISH 1 PER TOCA, TOTA	
18	FURNISH 1 PER SCIU	
19	FURNISH 1 PER TOAA	
20	FURNISH 1 PER TOLA (RS-422)	
21	FURNISH 1 PER TOLA (TTL)	
22	SEE NOTE 69	
23	SEE NOTE 70	
24	FURNISH 1 PER DCD-CIM SHELF	
25		
26		

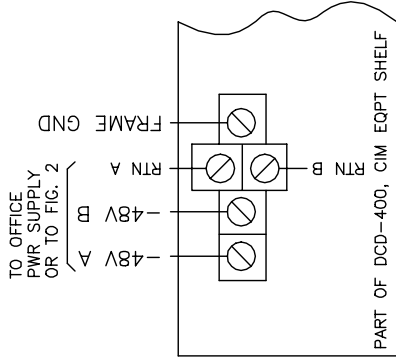


FIG. 1A
4-POSITION TB1

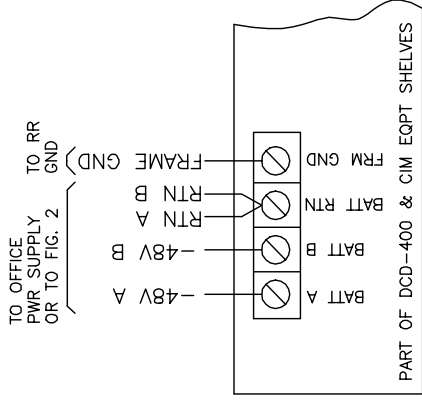


FIG. 1B
4-POSITION TB1

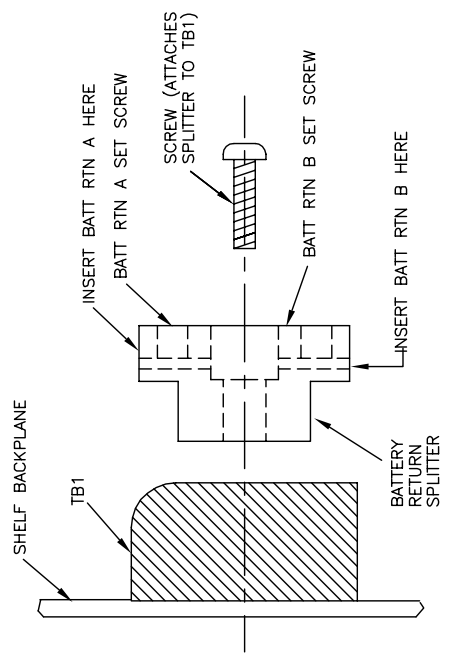


FIG. 1C
5-POSITION TB1

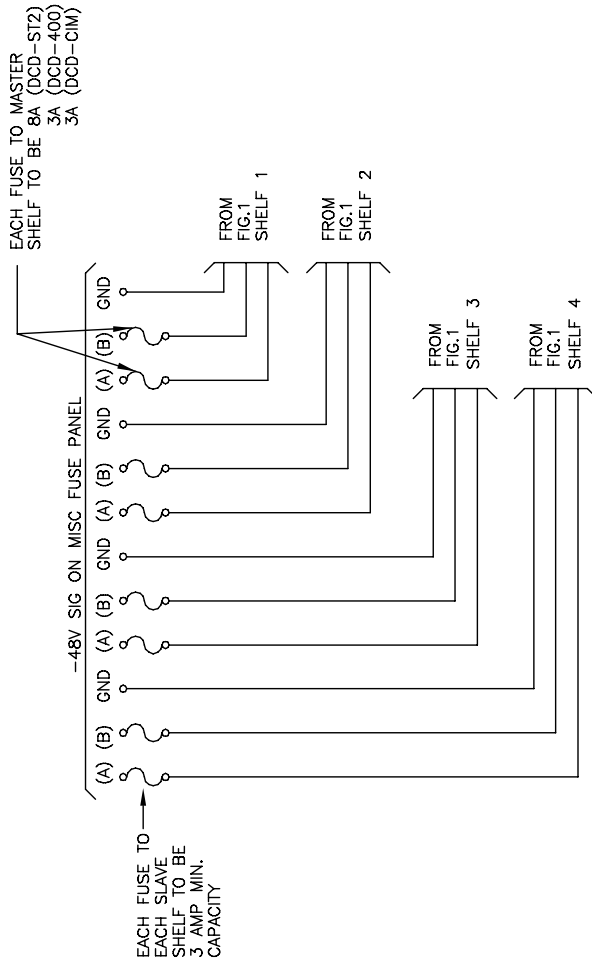
ISSUE	DESCRIPTION	DATE	APPROV
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING			
			DWG. SIZE
			ISSUE 1
APR4		DWG. NO. 097-40000-41	SHEET 4 OF 35

48V BATTERY FEEDS AND GROUND CONNECTIONS

(SEE NOTES 61, 65, & 76)

FIG. 2

-48V BATTERY SUPPLY AT MISC FUSE PANEL
WHEN SHELVES ARE FED SEPARATELY



ISSUE	DESCRIPTION	DATE	APPVD
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING			
DWG. SIZE		1	
ISSUE		1	
SHEET		5	of 35
APT5	DWG. NO. 097-40000-41		

OFFICE ALARM CONNECTIONS

FIG. 3
MAJOR OFFICE ALARMS
 (SEE NOTE 90)

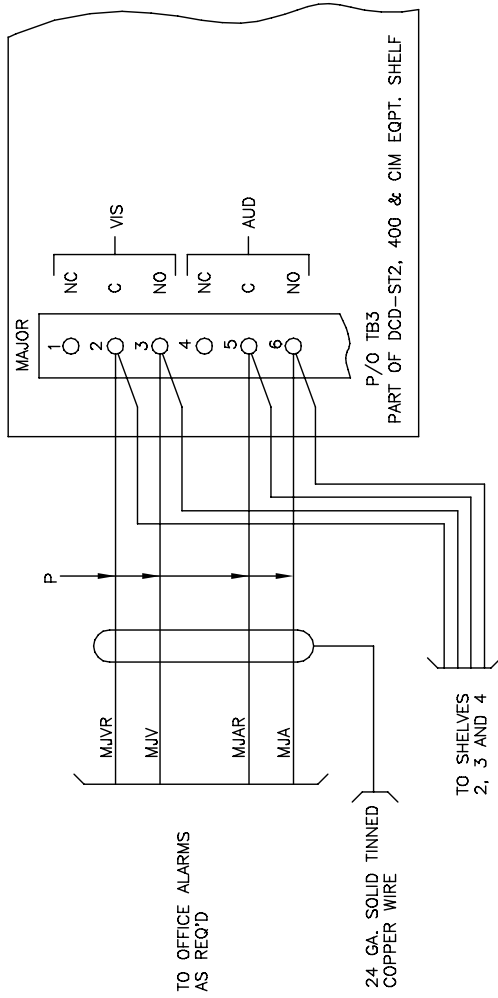
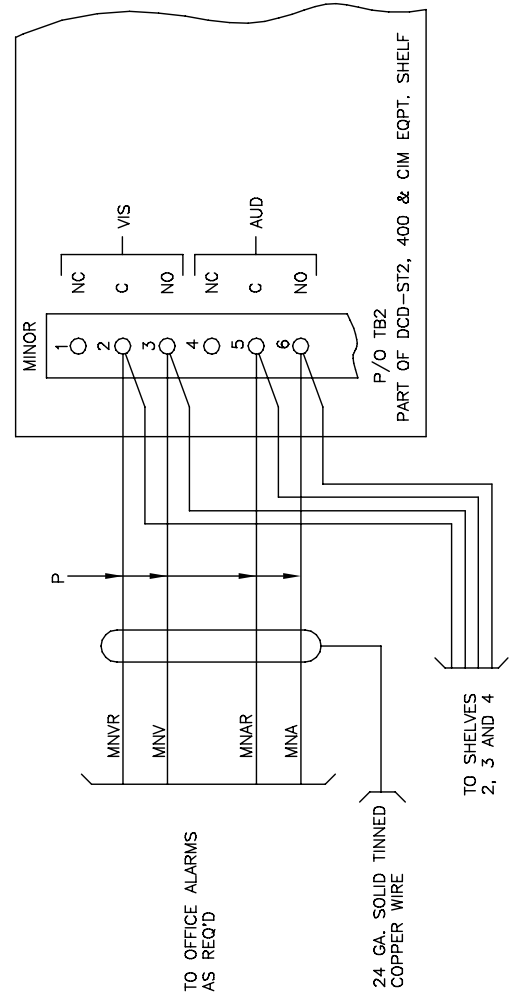


FIG. 4
MINOR OFFICE ALARMS
 (SEE NOTE 90)

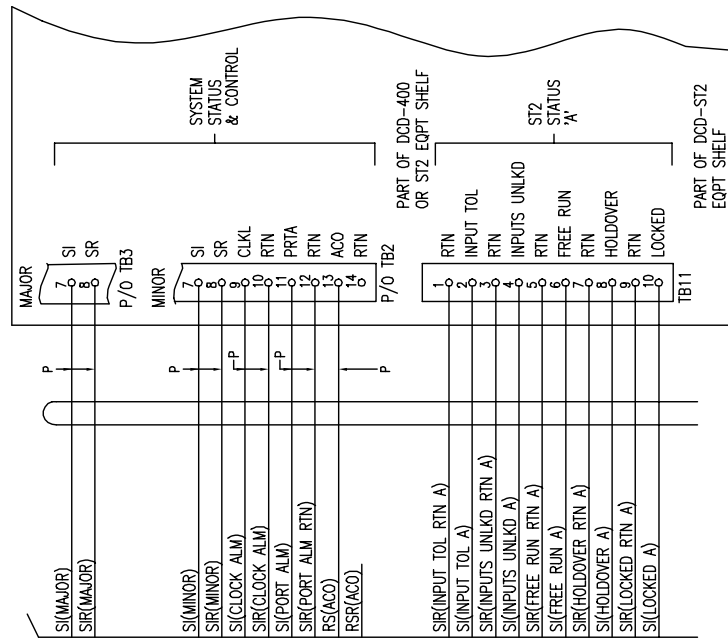


ISSUE	DESCRIPTION	DATE	APPVD
APT6	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
		RATING	
		DWG. SIZE	ISSUE
		1	1
		DWG. NO.	SHEET
		097-40000-41	6 of 35

STATUS AND ALARM INDICATOR CONNECTIONS

FIG. 5

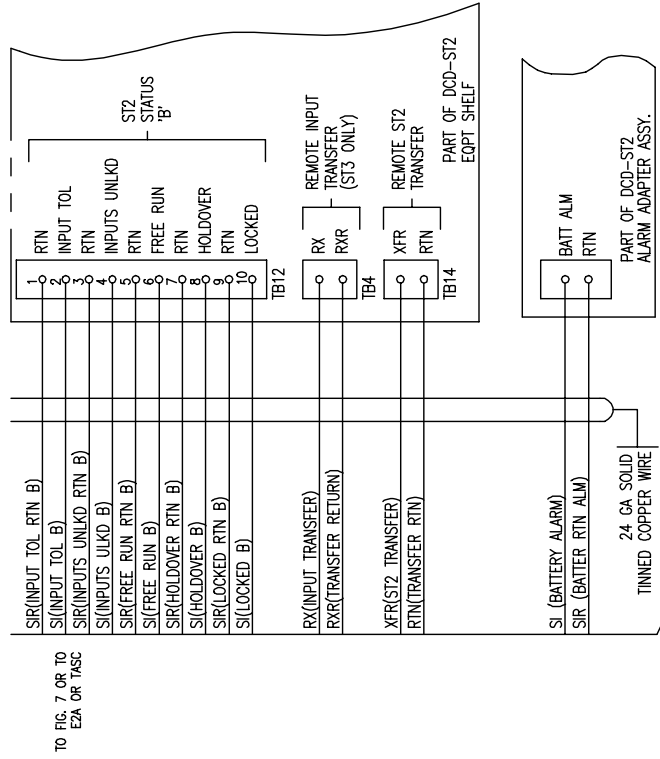
STATUS INDIC LDS
(SEE NOTES 89,90 & 94)



TO FIG. 7 OR TO
E2A OR TASC

FIG. 5 (CONT'D)

(SEE NOTES 89, 90)



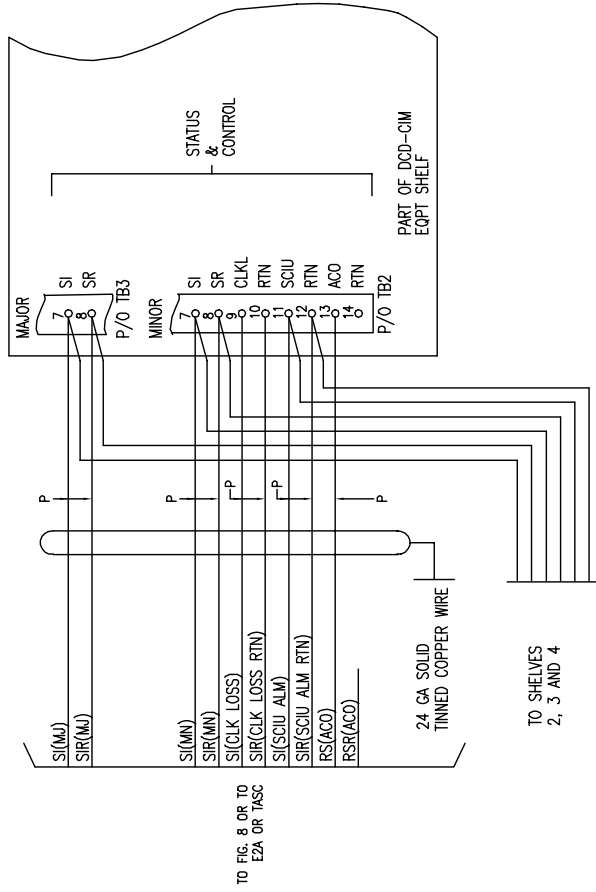
TO FIG. 7 OR TO
E2A OR TASC

ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		DWG. SIZE	ISSUE
AP7		1	1
DWG. NO. 097-40000-41		SHEET	7 OF 35

STATUS AND ALARM INDICATOR CONNECTIONS

FIG. 6

STATUS INDIC LDS
(SEE NOTES 90 & 94)



ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		RATING	
		DWG. SIZE	ISSUE 1
APT8	DWG. NO. 097-40000-41		SHEET 8 OF 35

STATUS AND ALARM INDICATOR CONNECTIONS

FIG. 7

FRAME TERMINATION STATUS LEADS

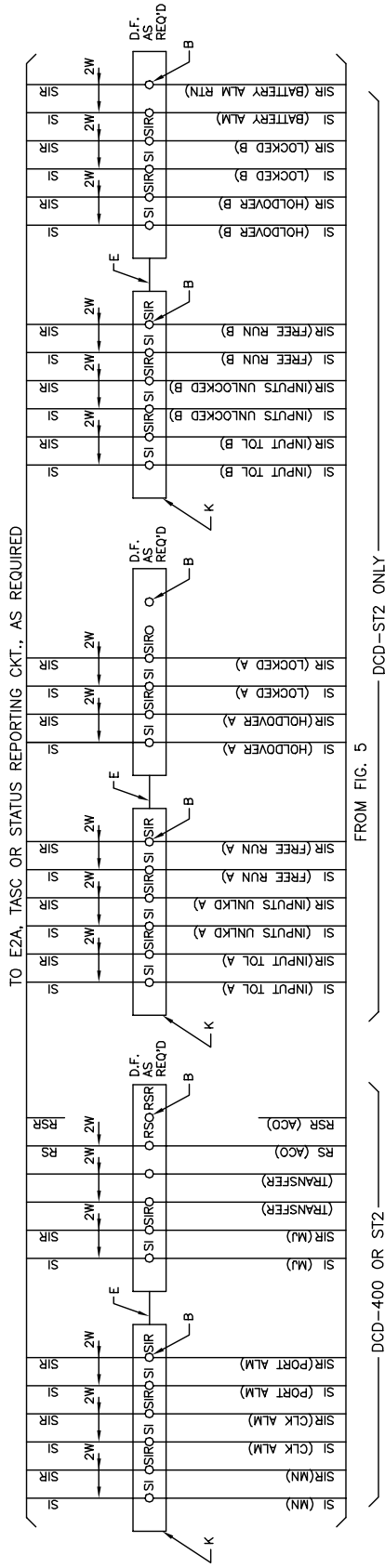
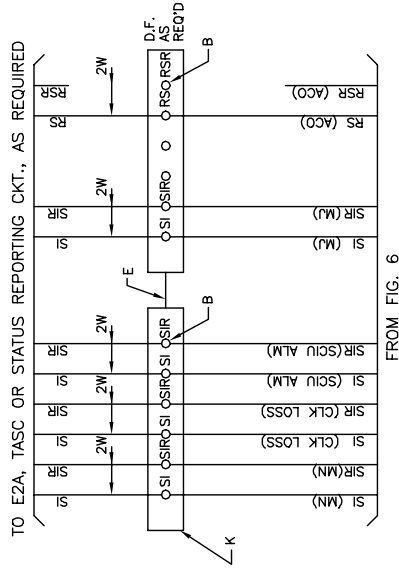


FIG. 8

FRAME TERMINATION STATUS LEADS



ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
DWG. NO. 097-40000-41		SHEET 9 of 35	
APT9		RATING DWG. SIZE 1	

CLOCK INPUT (REFERENCE) CONNECTIONS

FIG. 9

DS1 INTERCONN--WITHOUT BRIDGING REPEATER MASTER SHELF ONLY (SEE NOTES 52, 54, 56, 59 & 92)
TO DSX-1 INTERCONN. CKT. OR TO FIG. 10

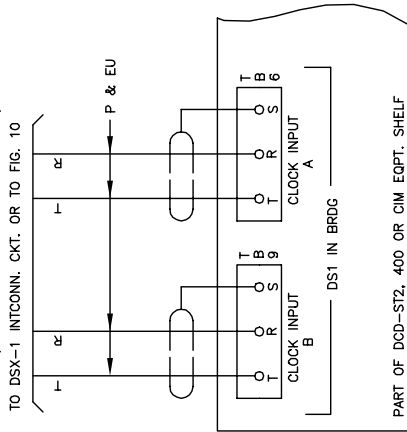


FIG. 11

FROM DS1 INTERCONN--FROM BRIDGING REPEATER FOR CLK TIMING CKT. MASTER SHELF ONLY (SEE NOTES 55, 55, 56, 59 & 92)
TO BRIDGING REPEATER CKT OR FIG. 12

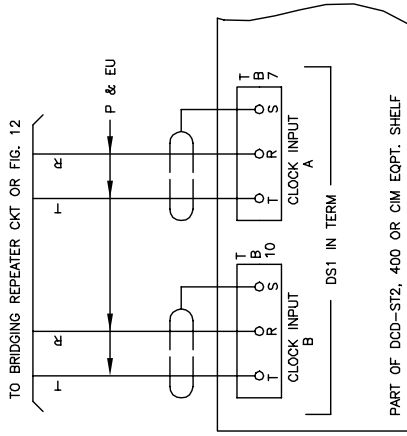


FIG. 10

FRAME TERMINATION DS1 LEADS (SEE NOTE 54)

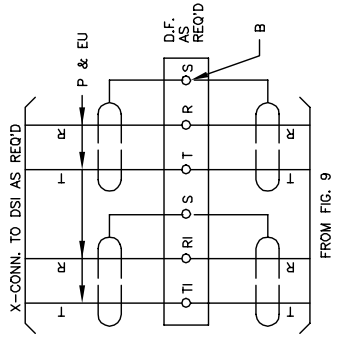


FIG. 12

FRAME TERMINATION BRIDGING REPEATER INTERCONN. (SEE NOTES 55, 55, 56, 59)
X-CONN. TO BRIDGING REPEATER CKT. AS REQ'D

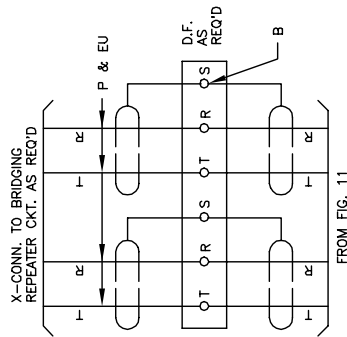


FIG. 13

FROM OFFICE CLOCK (TIMING CKT) INTERCONN. (SEE NOTES 59, 60 & 92)
TO OFFICE COMPOSITE CLOCK CKT. OR FIG. 14

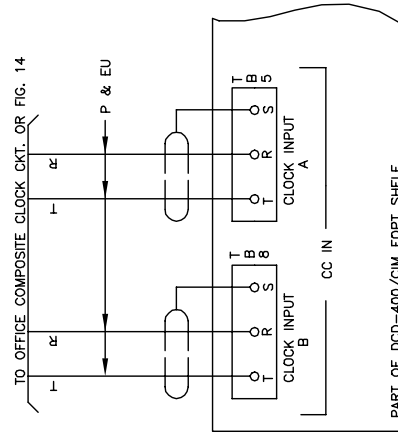


FIG. 13A

FROM OFFICE CLOCK (TIMING CKT) INTERCONN. (SEE NOTES 59, 60 & 92)
TO OFFICE COMPOSITE CLOCK CKT OR FIG. 14

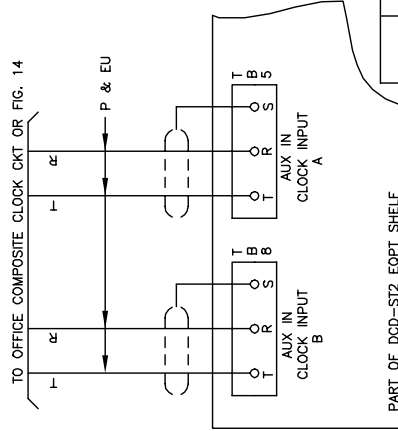
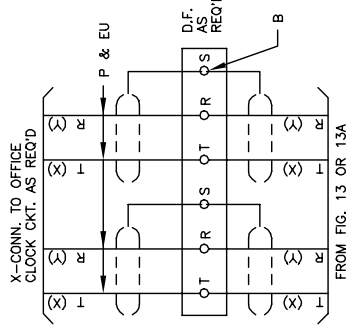


FIG. 14

FRAME TERMINATION OFFICE CLOCK LEADS



ISSUE	DESCRIPTION	DATE	APPROV
APT10	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING		DWG. SIZE	ISSUE
DWG. NO. 097-40000-41		1	1
SHEET		10 OF 35	

TIMING OUTPUT CONNECTIONS

FIG. 15

OFFICE TIMING OUTPUT INTERCONN.
1ST OR MASTER ST2 SHELF (PORTS 1 TO 40)
(SEE NOTE 84)

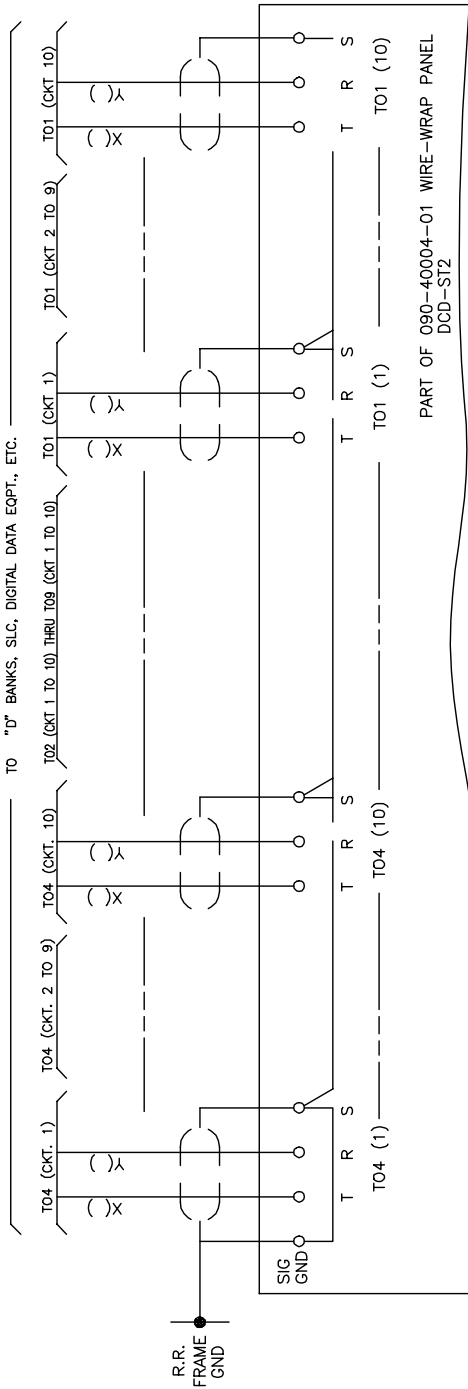
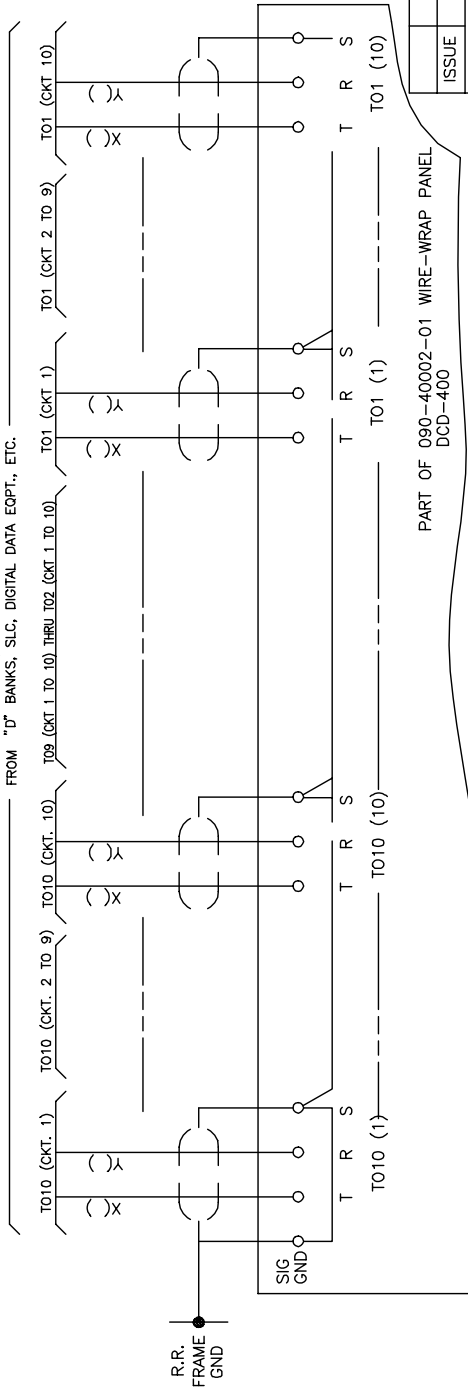


FIG. 16

OFFICE TIMING OUTPUT INTERCONN.
DCD-400 MASTER OR 2ND, 3RD, AND 4TH EXPANSION SHELF
(SEE NOTE 84)



ISSUE	DESCRIPTION	DATE	APPVD
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING		DWG. SIZE	ISSUE
APT11		097-40000-41	1
DWG. NO.		SHEET	
097-40000-41		11 of 35	

TABLE B

DCD-ST2 MASTER SHELF TIMING OUTPUT RECORD
(1-40 PORTS)
(SEE NOTE 83)

DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS							
OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION
	T01	1	T		X()		T02	1	T		X()		T03	1	T		X()		T04	1	T		X()
		1	R		Y()			2	T		X()			2	R		Y()			2	R		Y()
		2	T		X()			3	T		X()			3	T		X()			3	T		X()
		2	R		Y()			4	T		X()			4	R		Y()			4	R		Y()
		3	T		X()			5	T		X()			5	T		X()			5	T		X()
		3	R		Y()			6	T		X()			6	R		Y()			6	R		Y()
		4	T		X()			7	T		X()			7	T		X()			7	T		X()
		4	R		Y()			8	T		X()			8	R		Y()			8	R		Y()
		5	T		X()			9	T		X()			9	T		X()			9	T		X()
		5	R		Y()			10	T		X()			10	R		Y()			10	R		Y()
		6	T		X()			1	T		X()			1	T		X()			1	T		X()
		6	R		Y()			2	T		X()			2	R		Y()			2	R		Y()
		7	T		X()			3	T		X()			3	T		X()			3	T		X()
		7	R		Y()			4	T		X()			4	R		Y()			4	R		Y()
		8	T		X()			5	T		X()			5	T		X()			5	T		X()
		8	R		Y()			6	T		X()			6	R		Y()			6	R		Y()
		9	T		X()			7	T		X()			7	T		X()			7	T		X()
		9	R		Y()			8	T		X()			8	R		Y()			8	R		Y()
		10	T		X()			9	T		X()			9	T		X()			9	T		X()
		10	R		Y()			10	T		X()			10	R		Y()			10	R		Y()

ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING		DWG. SIZE	ISSUE
TELECOM SOLUTIONS		1	1
APT13	DWG. NO.	097-40000-41	SHEET
			13 of 35

TABLE B

DCD-ST2 MASTER SHELF TIMING OUTPUT RECORD
(1-40 PORTS)
(SEE NOTE 83)

DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS				DCD OUTPUT DESIGNATIONS							
OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION
	TO1	1	T		X()		TO2	1	T		X()		TO3	1	T		X()		TO4	1	T		X()
		1	R		Y()			2	T		X()			2	R		Y()			2	R		Y()
		2	T		X()			3	T		X()			3	T		X()			3	T		X()
		2	R		Y()			4	T		X()			4	R		Y()			4	R		Y()
		3	T		X()			5	T		X()			5	T		X()			5	T		X()
		3	R		Y()			6	T		X()			6	R		Y()			6	R		Y()
		4	T		X()			7	T		X()			7	T		X()			7	T		X()
		4	R		Y()			8	T		X()			8	R		Y()			8	R		Y()
		5	T		X()			9	T		X()			9	T		X()			9	T		X()
		5	R		Y()			10	T		X()			10	T		X()			10	T		X()
		6	T		X()			10	R		Y()			10	R		Y()			10	R		Y()
		6	R		Y()																		
		7	T		X()																		
		7	R		Y()																		
		8	T		X()																		
		8	R		Y()																		
		9	T		X()																		
		9	R		Y()																		
		10	T		X()																		
		10	R		Y()																		

ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		RATING	
DWG. NO. 097-40000-41		DWG. SIZE	ISSUE 1
APT13		SHEET	13 OF 35

TABLE C (CONTINUES ON THE NEXT PAGE)

DCD-400 MASTER OR EXPANSION SHELF TIMING OUTPUT RECORD
(SEE NOTE B3)

DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		
	TIMING OUTPUT UNIT	CLOCK OUTPUT		EQUIPMENT	LEAD		TIMING OUTPUT UNIT	CLOCK OUTPUT	EQUIPMENT
OFFICE DCD	T01	1	T	1	R	1	T	1	R
		1	R	1	R	1	R	1	R
		2	T	2	T	2	T	2	T
		2	R	2	R	2	R	2	R
		3	T	3	T	3	T	3	T
		3	R	3	R	3	R	3	R
		4	T	4	T	4	T	4	T
		4	R	4	R	4	R	4	R
		5	T	5	T	5	T	5	T
		5	R	5	R	5	R	5	R
6	T	6	T	6	T	6	T		
6	R	6	R	6	R	6	R		
7	T	7	T	7	T	7	T		
7	R	7	R	7	R	7	R		
8	T	8	T	8	T	8	T		
8	R	8	R	8	R	8	R		
9	T	9	T	9	T	9	T		
9	R	9	R	9	R	9	R		
10	T	10	T	10	T	10	T		
10	R	10	R	10	R	10	R		

DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		
	TIMING OUTPUT UNIT	CLOCK OUTPUT		EQUIPMENT	LEAD		TIMING OUTPUT UNIT	CLOCK OUTPUT	EQUIPMENT
OFFICE DCD	T02	1	T	1	R	1	T	1	R
		1	R	1	R	1	R	1	R
		2	T	2	T	2	T	2	T
		2	R	2	R	2	R	2	R
		3	T	3	T	3	T	3	T
		3	R	3	R	3	R	3	R
		4	T	4	T	4	T	4	T
		4	R	4	R	4	R	4	R
		5	T	5	T	5	T	5	T
		5	R	5	R	5	R	5	R
6	T	6	T	6	T	6	T		
6	R	6	R	6	R	6	R		
7	T	7	T	7	T	7	T		
7	R	7	R	7	R	7	R		
8	T	8	T	8	T	8	T		
8	R	8	R	8	R	8	R		
9	T	9	T	9	T	9	T		
9	R	9	R	9	R	9	R		
10	T	10	T	10	T	10	T		
10	R	10	R	10	R	10	R		

DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		
	TIMING OUTPUT UNIT	CLOCK OUTPUT		EQUIPMENT	LEAD		TIMING OUTPUT UNIT	CLOCK OUTPUT	EQUIPMENT
OFFICE DCD	T03	1	T	1	R	1	T	1	R
		1	R	1	R	1	R	1	R
		2	T	2	T	2	T	2	T
		2	R	2	R	2	R	2	R
		3	T	3	T	3	T	3	T
		3	R	3	R	3	R	3	R
		4	T	4	T	4	T	4	T
		4	R	4	R	4	R	4	R
		5	T	5	T	5	T	5	T
		5	R	5	R	5	R	5	R
6	T	6	T	6	T	6	T		
6	R	6	R	6	R	6	R		
7	T	7	T	7	T	7	T		
7	R	7	R	7	R	7	R		
8	T	8	T	8	T	8	T		
8	R	8	R	8	R	8	R		
9	T	9	T	9	T	9	T		
9	R	9	R	9	R	9	R		
10	T	10	T	10	T	10	T		
10	R	10	R	10	R	10	R		

DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		DCD OUTPUT DESIGNATIONS	DESTINATION		
	TIMING OUTPUT UNIT	CLOCK OUTPUT		EQUIPMENT	LEAD		TIMING OUTPUT UNIT	CLOCK OUTPUT	EQUIPMENT
OFFICE DCD	T04	1	T	1	R	1	T	1	R
		1	R	1	R	1	R	1	R
		2	T	2	T	2	T	2	T
		2	R	2	R	2	R	2	R
		3	T	3	T	3	T	3	T
		3	R	3	R	3	R	3	R
		4	T	4	T	4	T	4	T
		4	R	4	R	4	R	4	R
		5	T	5	T	5	T	5	T
		5	R	5	R	5	R	5	R
6	T	6	T	6	T	6	T		
6	R	6	R	6	R	6	R		
7	T	7	T	7	T	7	T		
7	R	7	R	7	R	7	R		
8	T	8	T	8	T	8	T		
8	R	8	R	8	R	8	R		
9	T	9	T	9	T	9	T		
9	R	9	R	9	R	9	R		
10	T	10	T	10	T	10	T		
10	R	10	R	10	R	10	R		

ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
DWG. NO.		DWG. SIZE	ISSUE
APT14		097-40000-41	1
SHEET		14 OF 35	

TABLE C (CONT'D)

DCD-400 MASTER OR EXPANSION SHELF TIMING OUTPUT RECORD
(SEE NOTE 83)

DCD OUTPUT DESIGNATIONS			DCD OUTPUT DESIGNATIONS			DCD OUTPUT DESIGNATIONS					
OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION
	TO6	1	T		X()		TO8	1	T		X()
		1	R		Y()			1	R		Y()
		2	T		X()			2	T		X()
		2	R		Y()			2	R		Y()
		3	T		X()			3	T		X()
		3	R		Y()			3	R		Y()
		4	T		X()			4	T		X()
		4	R		Y()			4	R		Y()
		5	T		X()			5	T		X()
		5	R		Y()			5	R		Y()
	6	T		X()		6	T		X()		
	6	R		Y()		6	R		Y()		
	7	T		X()		7	T		X()		
	7	R		Y()		7	R		Y()		
	8	T		X()		8	T		X()		
	8	R		Y()		8	R		Y()		
	9	T		X()		9	T		X()		
	9	R		Y()		9	R		Y()		
	10	T		X()		10	T		X()		
	10	R		Y()		10	R		Y()		

DCD OUTPUT DESIGNATIONS			DCD OUTPUT DESIGNATIONS			DCD OUTPUT DESIGNATIONS					
OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION	OFFICE DCD	TIMING OUTPUT UNIT	CLOCK OUTPUT	LEAD	EQUIPMENT	DESTINATION
	TO7	1	T		X()		TO9	1	T		X()
		1	R		Y()			1	R		Y()
		2	T		X()			2	T		X()
		2	R		Y()			2	R		Y()
		3	T		X()			3	T		X()
		3	R		Y()			3	R		Y()
		4	T		X()			4	T		X()
		4	R		Y()			4	R		Y()
		5	T		X()			5	T		X()
		5	R		Y()			5	R		Y()
	6	T		X()		6	T		X()		
	6	R		Y()		6	R		Y()		
	7	T		X()		7	T		X()		
	7	R		Y()		7	R		Y()		
	8	T		X()		8	T		X()		
	8	R		Y()		8	R		Y()		
	9	T		X()		9	T		X()		
	9	R		Y()		9	R		Y()		
	10	T		X()		10	T		X()		
	10	R		Y()		10	R		Y()		

ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
AP115	DWG. NO. 097-40000-41		
		DWG. SIZE	ISSUE 1
			SHEET 15 OF 35

TIMING OUTPUT INTERCONNECTIONS (MMP)

(SEE NOTES 67, 71, & 84)

FIG. 19 WIRE-WRAP MODULE
(SEE NOTE 84)

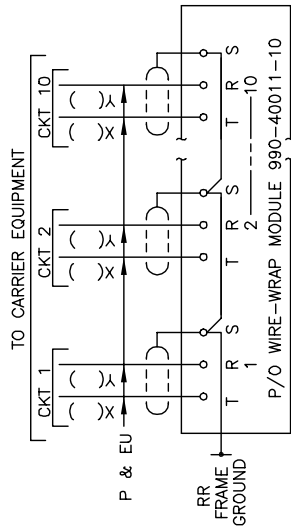


FIG. 20 SCIU WIRE-WRAP MODULE
(SEE NOTES 84 & 93)

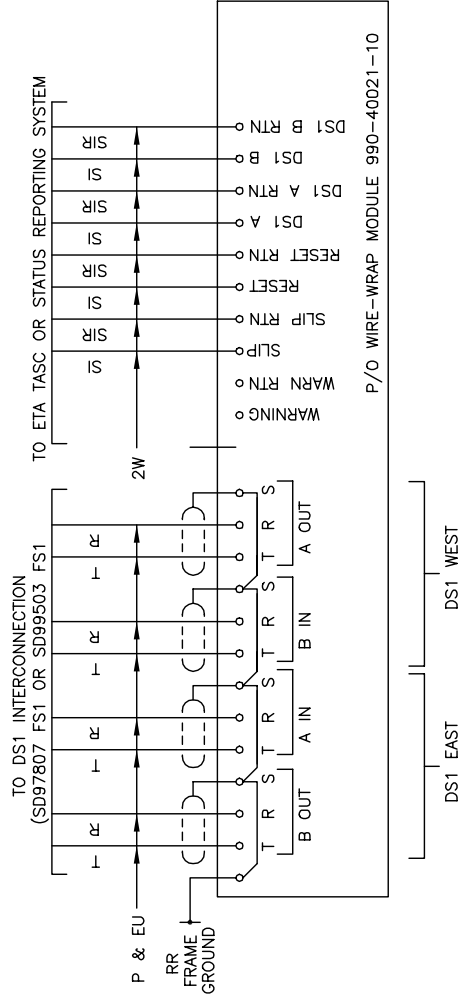
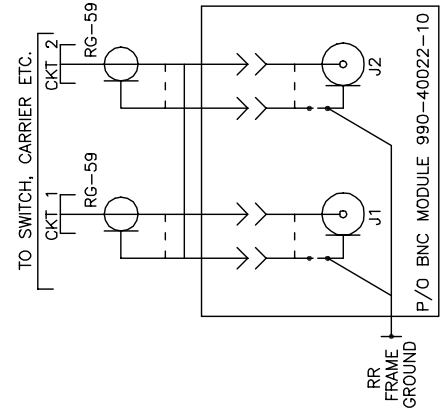


FIG. 21 BNC MODULE



ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING		DWG. SIZE	ISSUE 1
TELECOM SOLUTIONS			
APT16	DWG. NO. 097-40000-41		SHEET 16 OF 35

TIMING OUTPUT INTERCONNECTIONS (MMP)

(SEE NOTES 67 & 71)

FIG. 22 DB9 MODULE (RS-422)

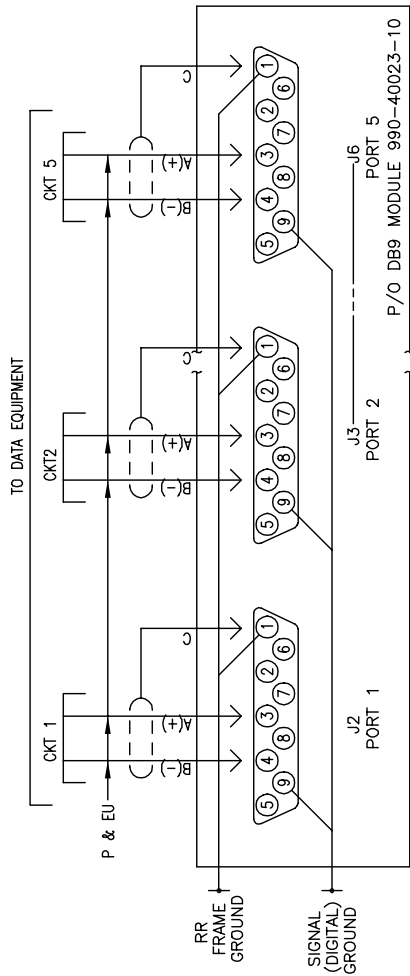
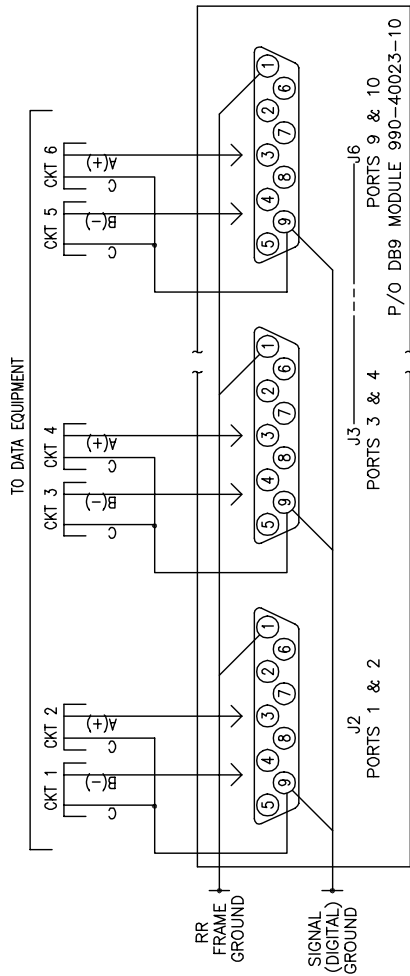


FIG. 23 DB9 MODULE (TTL)



ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			
DWG. NO.		DWG. SIZE	ISSUE
APT17		097-40000-41	1
SHEET		17 of 35	

TIMING (CLOCK) OUTPUT RECORDS (MMP)

(SEE NOTES 67 & 71)

TABLE AA
WIRE-WRAP MODULE CONNECTIONS
(TOCA, TOTA)

DCD OUTPUT DESIGNATIONS	DESTINATION	
	CLOCK OUTPUT	LEAD
TOCA,TOTA	LEAD	EQUIPMENT
1	T	X()
2	R	Y()
3	T	X()
4	R	Y()
5	T	X()
6	R	Y()
7	T	X()
8	R	Y()
9	T	X()
10	R	Y()

TABLE DD
DB9 MODULE CONNECTIONS
(TOLA) RS-422 OUTPUT

DCD OUTPUT DESIGNATIONS	DESTINATION	
	CLOCK OUTPUT	LEAD
1	J2-3 J2-4 J2-5	A B C
2	J3-3 J3-4 J3-5	A B C
3	J4-3 J3-4 J3-5	A B C
4	J4-3 J4-4 J4-5	A B C
5	J6-3 J6-4 J6-5	A B C

TABLE EE
DB9 MODULE CONNECTIONS
(TOLA) TTL OUTPUT

DCD OUTPUT DESIGNATIONS	DESTINATION	
	CLOCK OUTPUT	LEAD
1	J2-3 J2-9	A C
2	J2-4 J2-9	
3	J3-3 J3-9	
4	J3-4 J3-9	
5	J4-3 J4-9	
6	J4-4 J4-9	
7	J5-3 J5-9	
8	J5-4 J5-9	
9	J6-3 J6-9	
10	J6-4 J6-9	

TABLE BB
SCIU WIRE-WRAP MODULE CONNECTIONS
(SCIU) (NOTE 93)

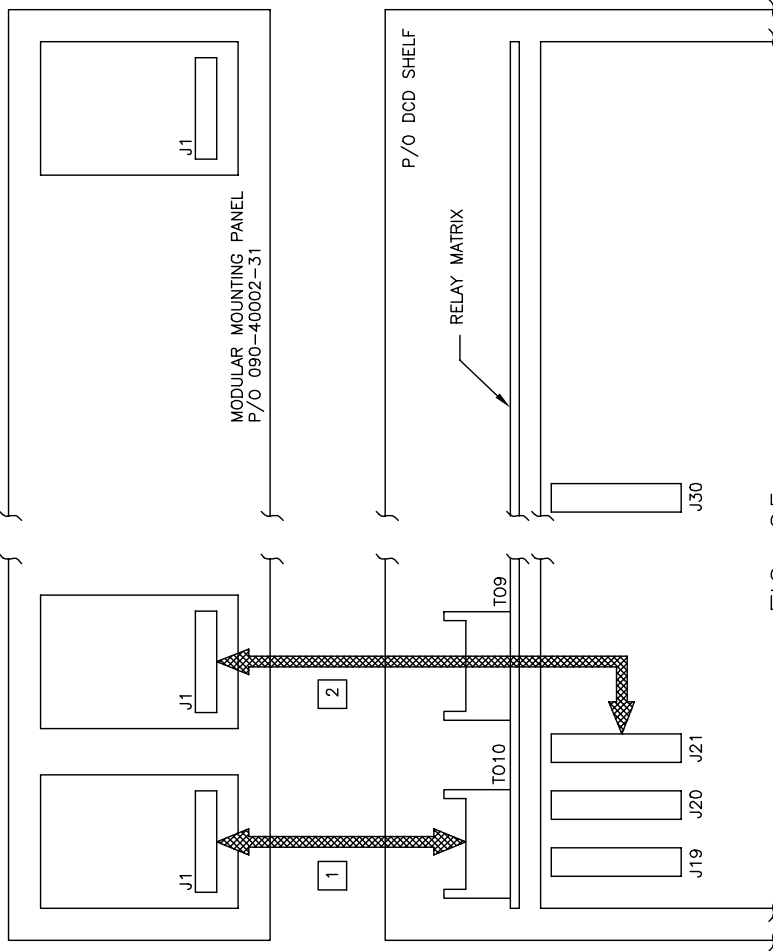
DCD-CIM DESIGNATIONS	DESTINATION	
	LEAD	LEAD
SCIU	EQUIPMENT	EQUIPMENT
EAST	T	X()
B OUT	R	Y()
EAST	T	X()
A IN	R	Y()
WEST	T	X()
B IN	R	Y()
WEST	T	X()
A OUT	R	Y()
WARN	SI SIR	X() Y()
SLIP	SI SIR	X() Y()
RESET	RS RSR	X() Y()
DS1 A	SI SIR	X() Y()
DS1 B	SI SIR	X() Y()

TABLE CC
BNC MODULE CONNECTIONS
(TOAA)

DCD EQUIPMENT	DESTINATION	
	ANALOG PORT	EQUIPMENT
TOAA	PORT 1 (J1)	
	PORT 2 (J2)	

ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			
APT18	DWG. NO. 097-40000-41		
		RATING	
		DWG. SIZE	ISSUE 1
			SHEET 18 OF 35

FIG. 24
DCD TO MODULE CONNECTIONS
(SEE NOTE 70)



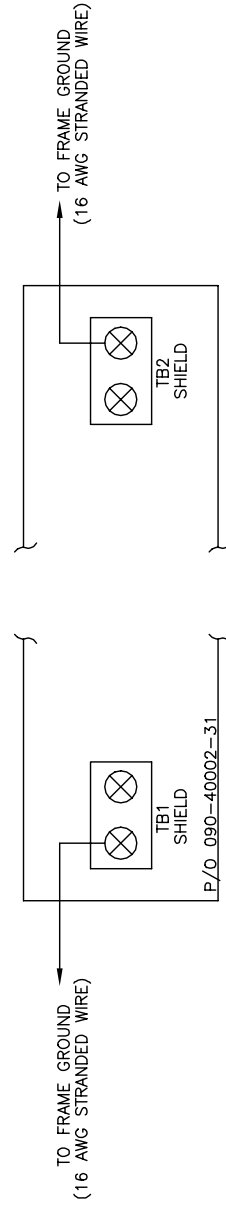
1 FOR TOCA, TOTA, TOAA AND TOLA CONNECT RIBBON CABLE (PROVIDED) FROM DCD RELAY MATRIX CONNECTOR (TO1 TO TO4 FOR DCD-ST2 OR TO1 TO TO10 FOR DCD-400) TO MODULE CONNECTOR J1.

2 FOR SCUI CONNECT RIBBON CABLE FROM DCD BACKPLANE (J15 TO J20 FOR DCD-ST2 OR J19 TO J30 FOR DCD-400) TO MODULE CONNECTOR J1.

DCD-ST2	
OUTPUT SLOT	BACKPLANE CONNECTOR
TO 1	J 20
TO 2	J 19
TO 3	J 18
TO 4	J 17
HS 1	J 16
HS 2	J 15

DCD-400	
OUTPUT SLOT	BACKPLANE CONNECTOR
TO 1	J 30
TO 2	J 29
TO 3	J 28
TO 4	J 27
TO 5	J 26
TO 6	J 25
TO 7	J 24
TO 8	J 23
TO 9	J 22
TO 10	J 21
HS 1	J 20
HS 2	J 19

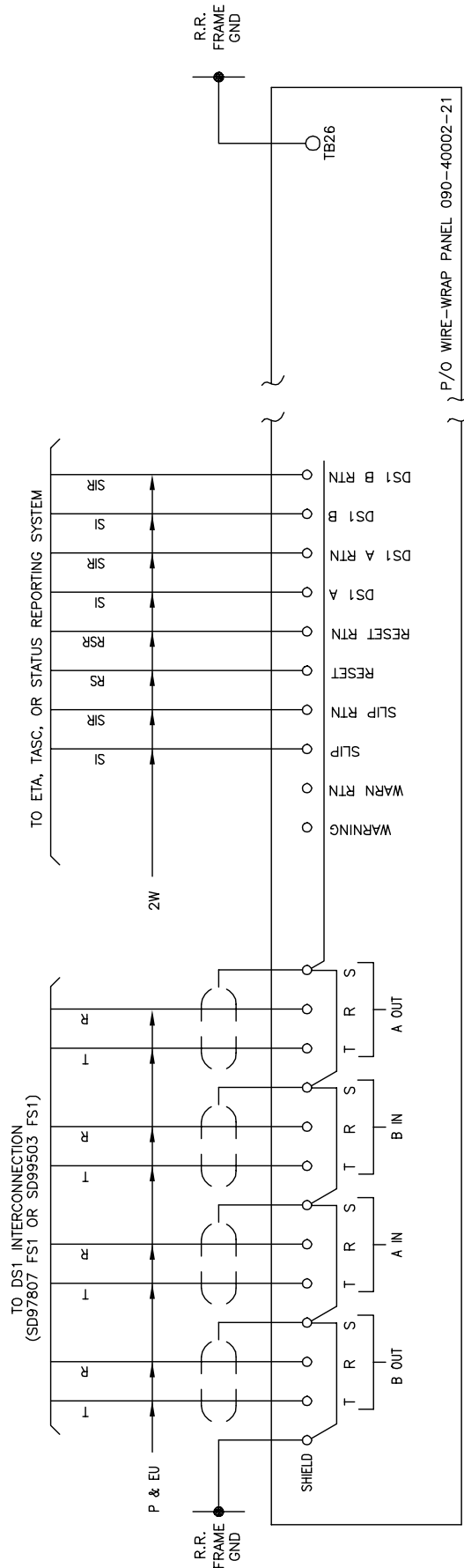
FIG. 25
MODULAR MOUNTING PANEL SHIELD CONNECTION
(SEE NOTE 69)



ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			
APPT19		DWG. NO. 097-40000-41	SHEET 19 OF 35
		RATING	ISSUE 1
		DWG. SIZE	

FIG. 26

SCIU INPUT/OUTPUT CONNECTIONS
(TYPICAL)
(SEE NOTES 79, 81, 83, 84, & 93)



DS1 EAST
DS1 WEST

TYPICAL TB1 THRU TB12

TYPICAL TB13 THRU TB24

ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			ISSUE 1
DWG. NO. 097-40000-41			SHEET 20 of 35
APT20			

TABLE E (CONT'D)

SCIU DS1 INPUT AND OUTPUT RECORD
(SEE NOTES 81, 83, & 93)

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

DCD-CIM OFFICE	DESIGNATIONS		DESTINATION	
	SCIU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
	SIR	SIR		Y()
	SLIP	SI		X()
	SIR	SIR		Y()
	RESET	RS		X()
	RSR	RSR		Y()
	DS1 A	SI		X()
	SIR	SIR		Y()
	DS1 B	SI		X()
	SIR	SIR		Y()

ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR			
INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
APT21	DWG. NO.	097-40000-41	SHEET
			21 of 35

TABLE E (CONTINUES ON THE NEXT PAGE)

SCU DS1 INPUT AND OUTPUT RECORD
(SEE NOTES 81 & 83)

DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

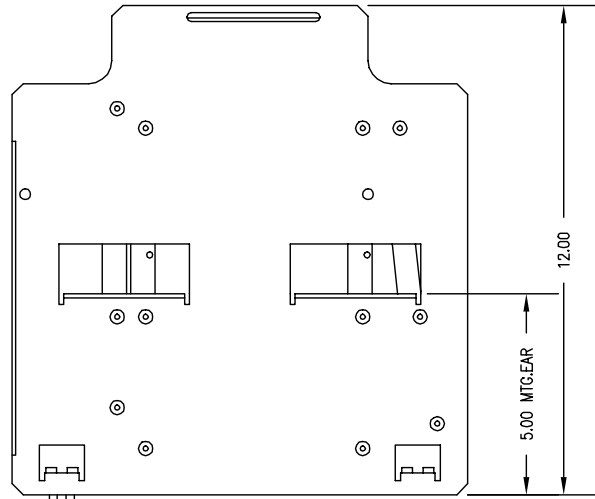
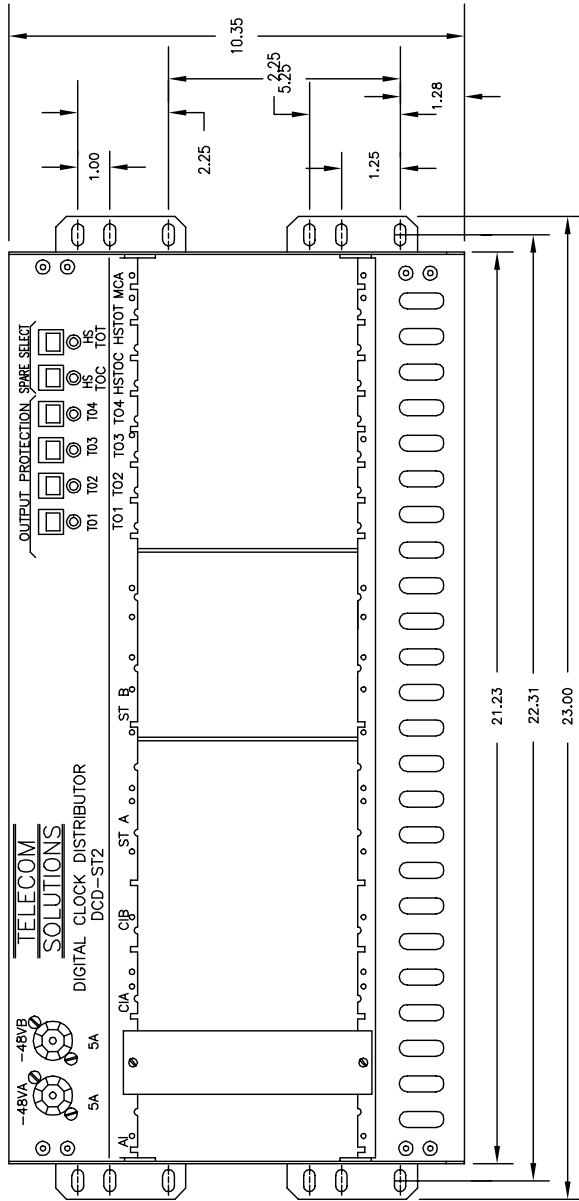
DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

DCD-CIM OFFICE DCD-CIM	DESIGNATIONS		DESTINATION	
	SCU	LEAD	EQUIPMENT	LEAD
	EAST	T		X()
	B OUT	R		Y()
	EAST	T		X()
	A IN	R		Y()
	WEST	T		X()
	B IN	R		Y()
	WEST	T		X()
	A OUT	R		Y()
	WARN	SI		X()
		SIR		Y()
	SLIP	SI		X()
		SIR		Y()
	RESET	RS		X()
		RSR		Y()
	DS1 A	SI		X()
		SIR		Y()
	DS1 B	SI		X()
		SIR		Y()

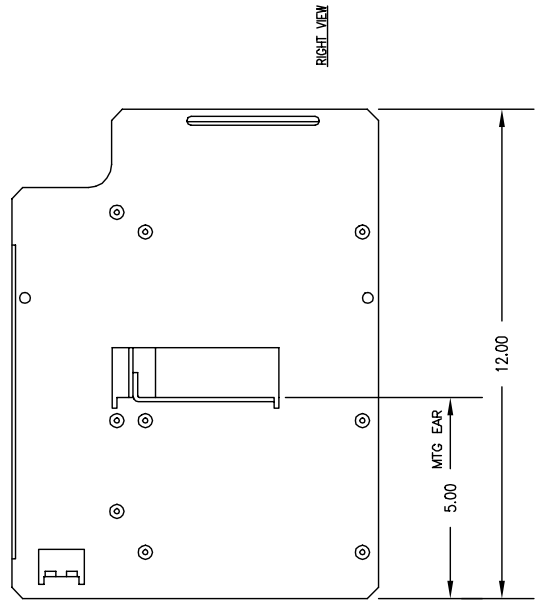
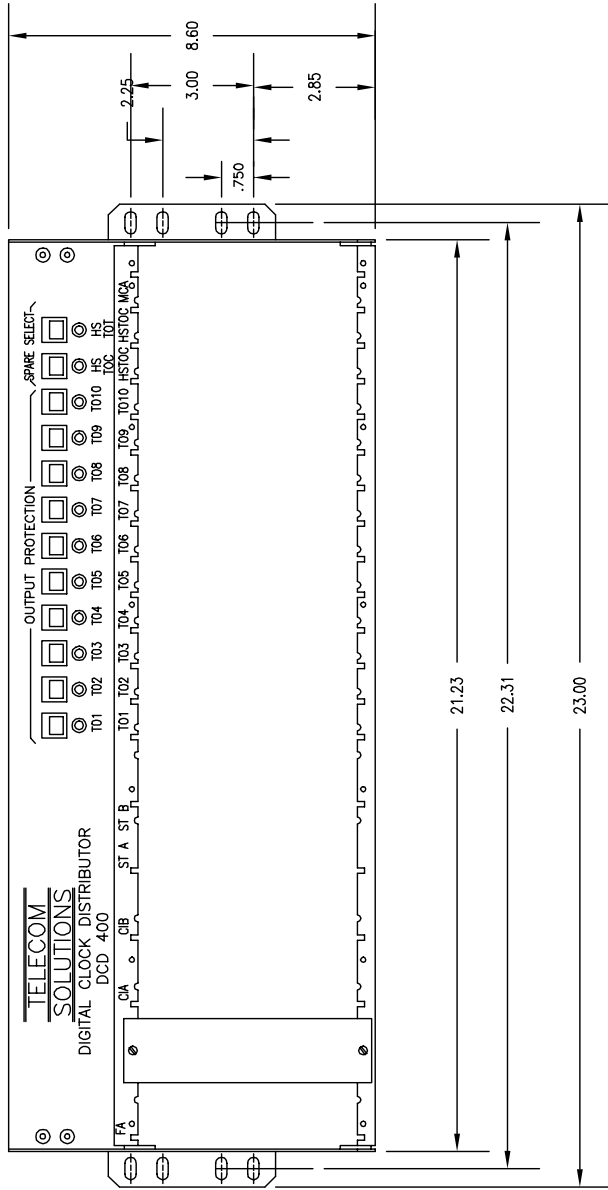
ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			ISSUE 1
APR22	DWG. NO. 097-40000-41		SHEET 22 of 35

DCD-ST2 090-40001-02 MASTER SHELF ASSEMBLY
 OUTLINE DIMENSIONS
 (SEE NOTE 87)



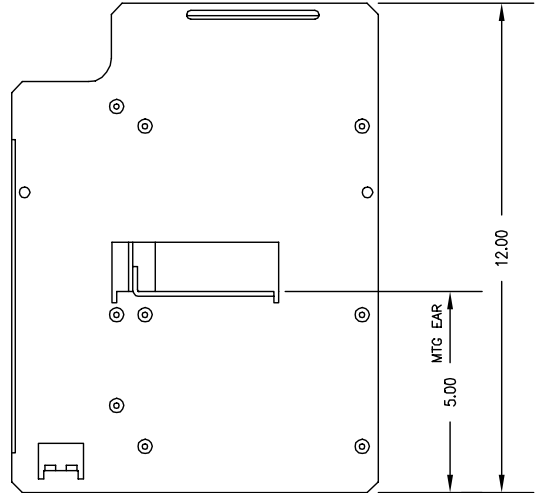
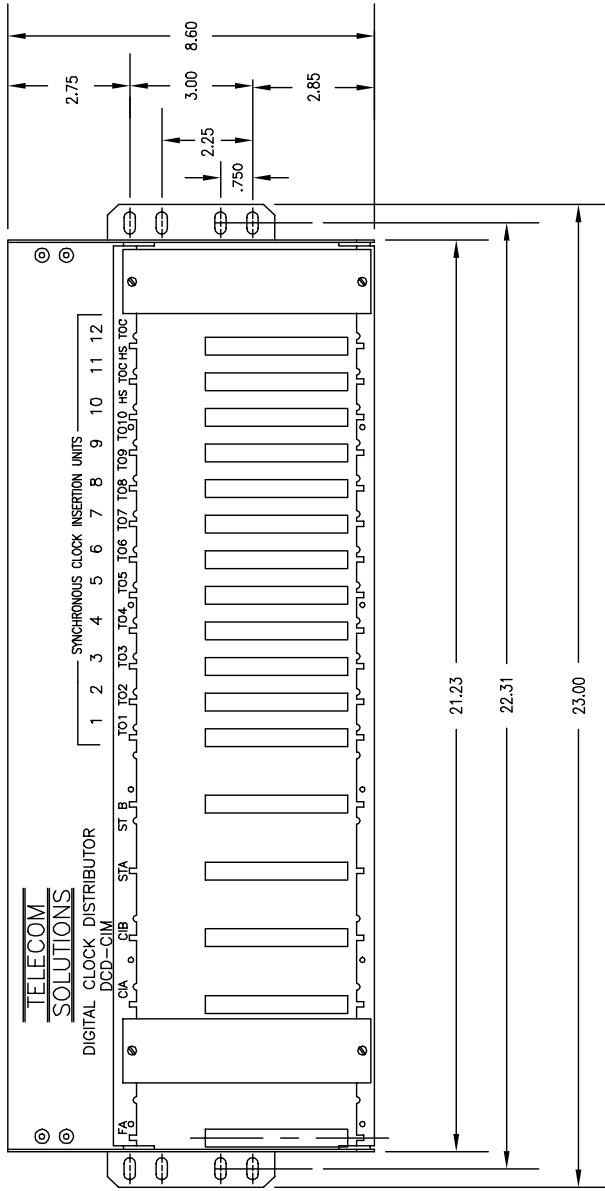
ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		RATING	
DWG. NO. 097-40000-41		DWG. SIZE	ISSUE 1
AFT23		SHEET	23 OF 35

DCD-400 090-40001-01 MASTER OR EXPANSION SHELF ASSEMBLY
 OUTLINE DIMENSIONS
 (SEE NOTE 87)



ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			RATING
APT24	DWG. NO. 097-40000-41	DWG. SIZE 1	ISSUE 1
			SHEET 24 OF 35

DCD-CIM 090-40001-21 SHELF ASSEMBLY
 ASSEMBLY OUTLINE DIMENSIONS
 (SEE NOTE 80)

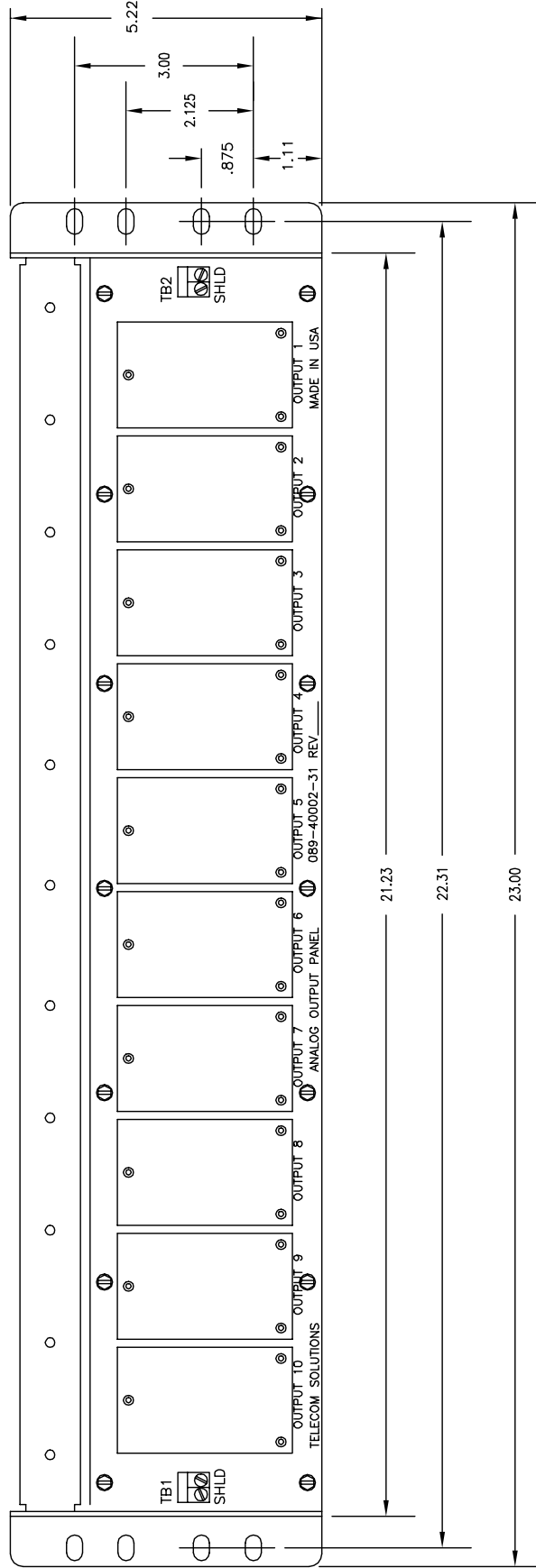


RIGHT VIEW

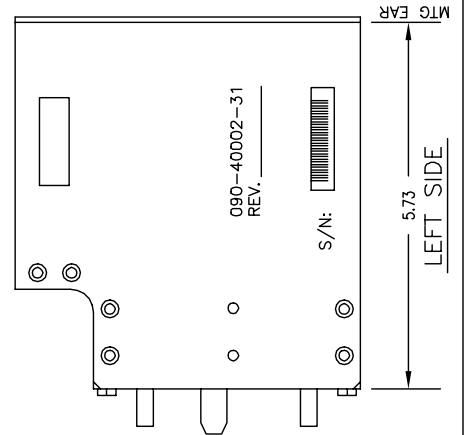
ISSUE	DESCRIPTION	DATE	APPVD
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		
RATING		DWG. SIZE	ISSUE
AFT25		097-40000-41	1
DWG. NO.		SHEET	25 OF 35

MODULAR MOUNTING PANEL

090-40002-31
 OUTLINE DIMENSIONS
 (SEE NOTE 67 & 69)



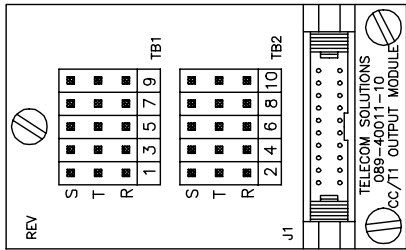
REAR VIEW



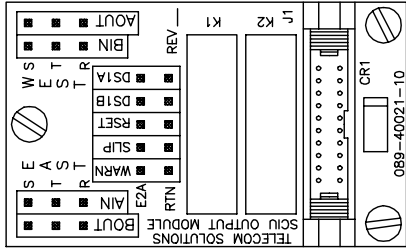
ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			ISSUE 1
APR26		DWG. NO. 097-40000-41	SHEET 26 of 35

OUTPUT MODULES

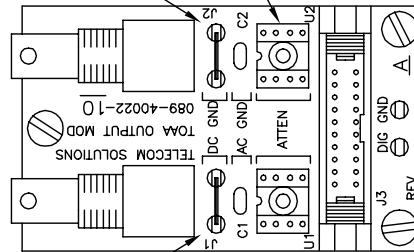
(SEE NOTE 68)



WIRE-WRAP MODULE
990-40011-10



SCIU WIRE-WRAP MODULE
990-40021-10

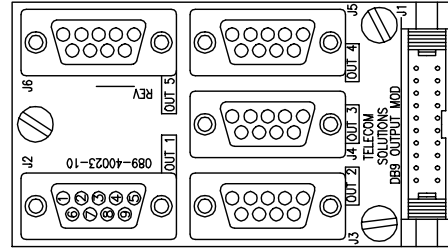


BNC MODULE
990-40022-10

TO ISOLATE DC GROUND (SHIELD) FROM DCD EQUIPMENT, REMOVE JUMPER (DC GND), J1.

TO ISOLATE DC GROUND (SHIELD) FROM DCD EQUIPMENT, REMOVE JUMPER (DC GND), J2.

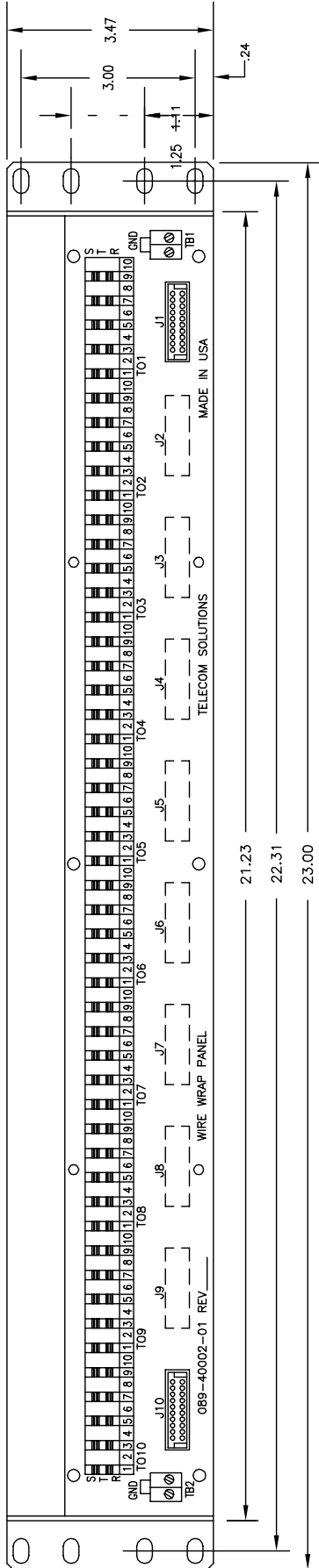
INSTALL ATTENUATOR (2 PLACES U1 & U2) FOR LEVEL COORDINATION. OUTPUT LEVEL IS 0 DBM. ATTENUATORS SUPPLIED ARE COVERED, 20DB, 0DB AND 3.5DB 75 TO 50 OHM.



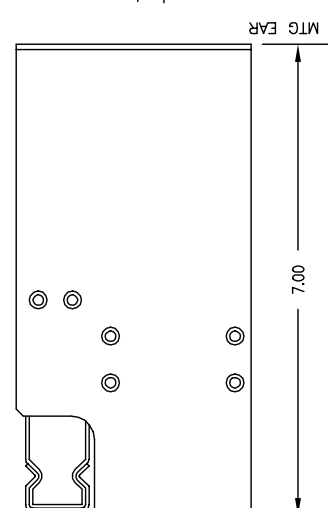
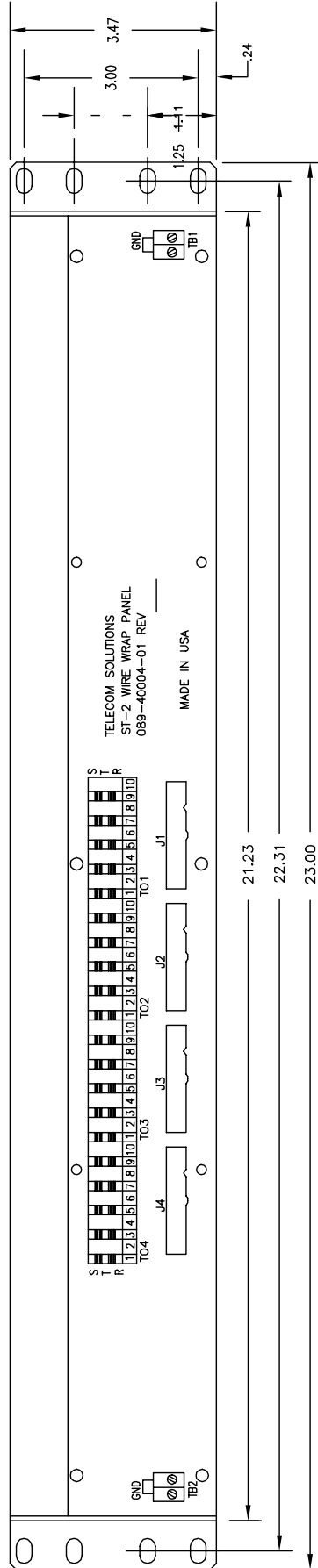
D89 MODULE
990-40023-10

ISSUE	DESCRIPTION	DATE	APPROV
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			
RATING		DWG. SIZE	ISSUE
AP127		097-40000-41	1
DWG. NO.		SHEET	27 OF 35

DCD-400 090-40002-01 WIRE-WRAP PANEL
(MASTER SHELF OF EXPANSION SHELF)
OUTLINE DIMENSIONS



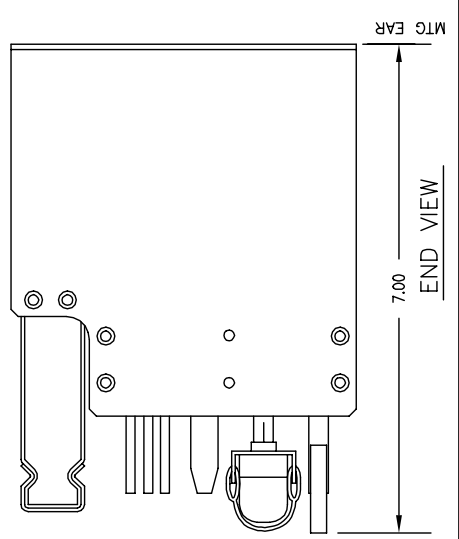
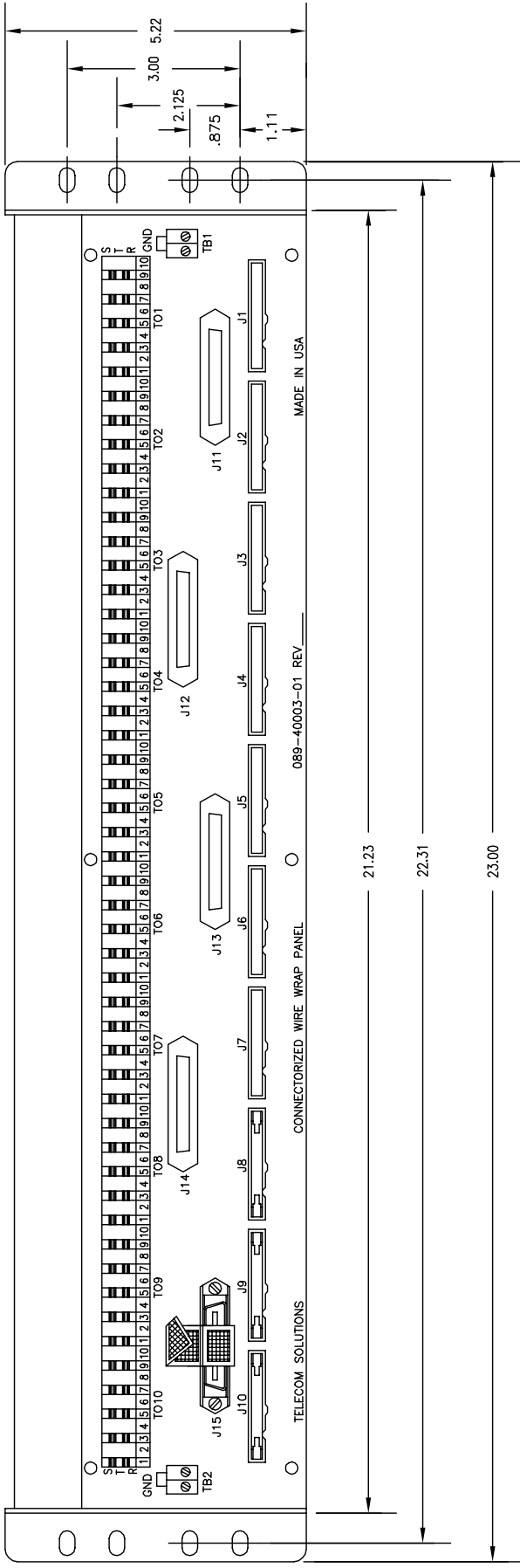
DCD-ST2 090-40004-01 WIRE WRAP PANEL
(MASTER SHELF)
OUTLINE DIMENSIONS



TYPICAL END VIEW

ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			ISSUE 1
TELECOM SOLUTIONS			DWG. SIZE
APT28	DWG. NO.	097-40000-41	SHEET 28 OF 35

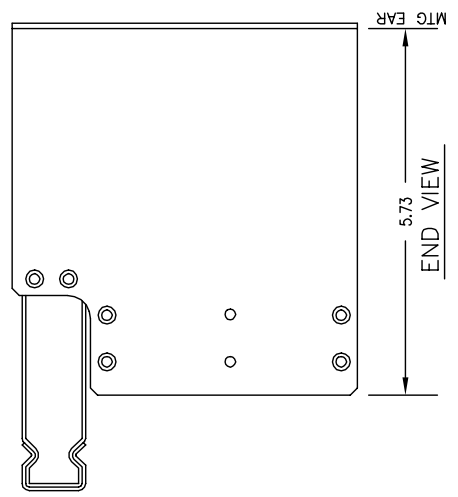
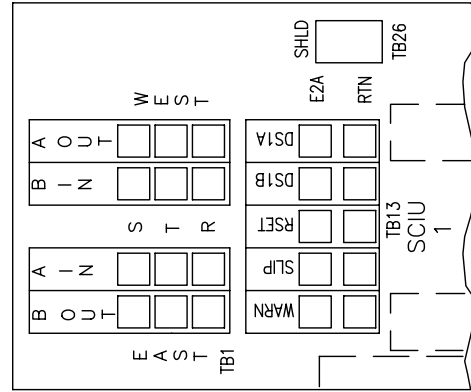
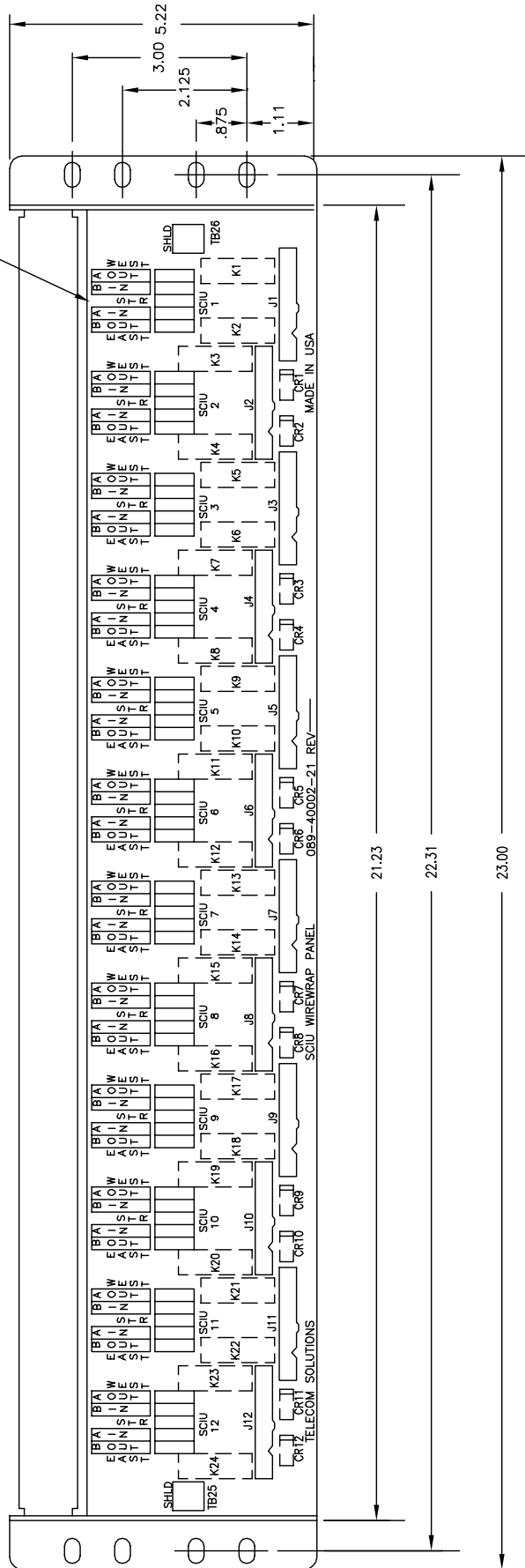
DCD-400 090-40003-01 REMOTE WIRE-WRAP PANEL
OUTLINE DIMENSIONS



ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
DWG. NO. 097-40000-41		DWG. SIZE 1	ISSUE 1
APT29		SHEET 29	OF 35

DCD-CIM 090-40002-21 WIRE WRAP PANEL
OUTLINE DIMENSIONS

SEE DETAIL A



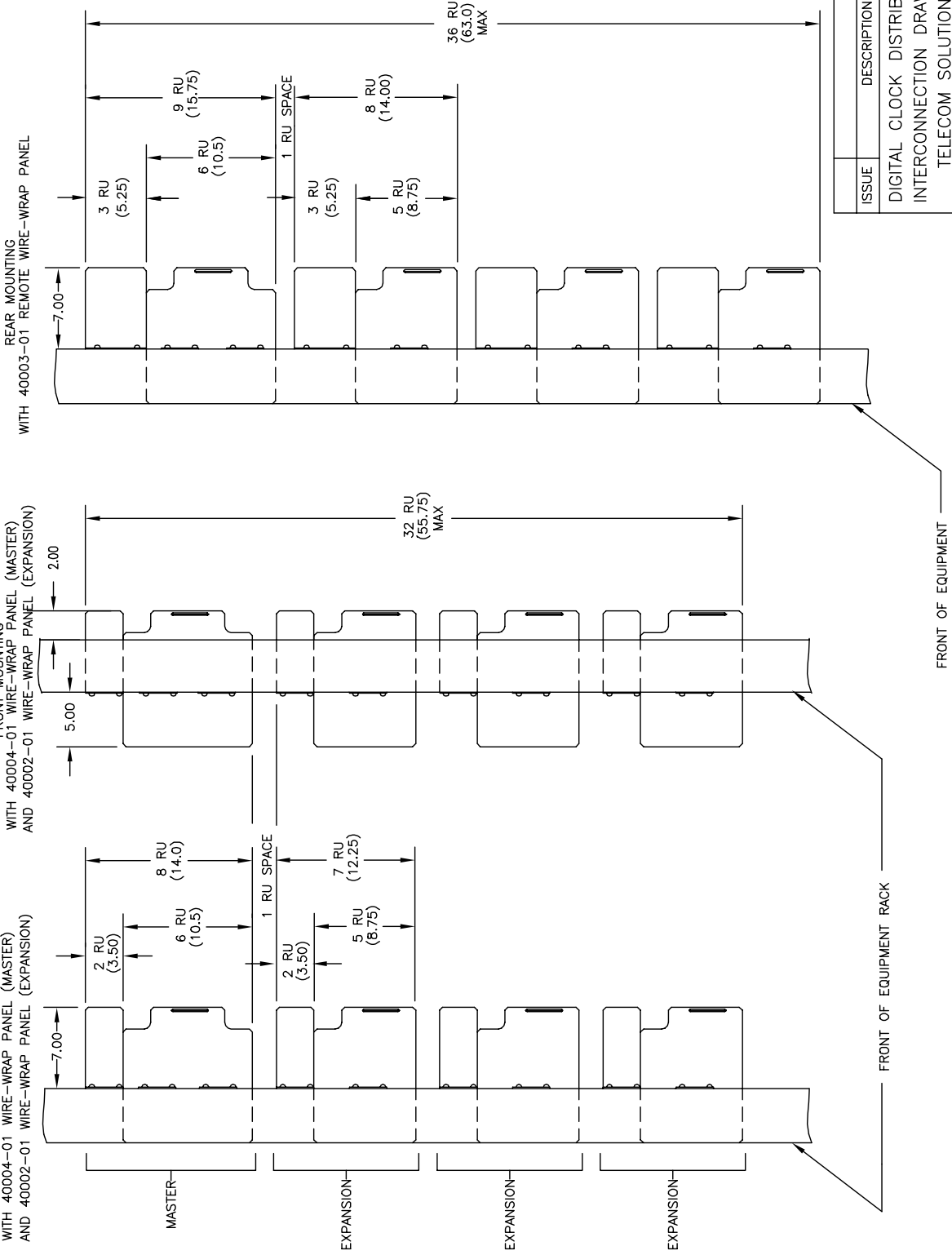
ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING		DWG. SIZE	ISSUE
TELECOM SOLUTIONS		1	1
APT30	DWG. NO.	097-40000-41	
		SHEET	30 OF 35

DCD-ST2

RECOMMENDED RACK MOUNTING CONFIGURATIONS
EQUIPMENT SHOWN MOUNTED ON UNEQUAL FLANGE DUCT TYPE RACK.
CAN BE MOUNTED ON ANSI/EIA STANDARD TYPE RACK.

FRONT MOUNTING
WITH 40004-01 WIRE-WRAP PANEL (MASTER)
AND 40002-01 WIRE-WRAP PANEL (EXPANSION)

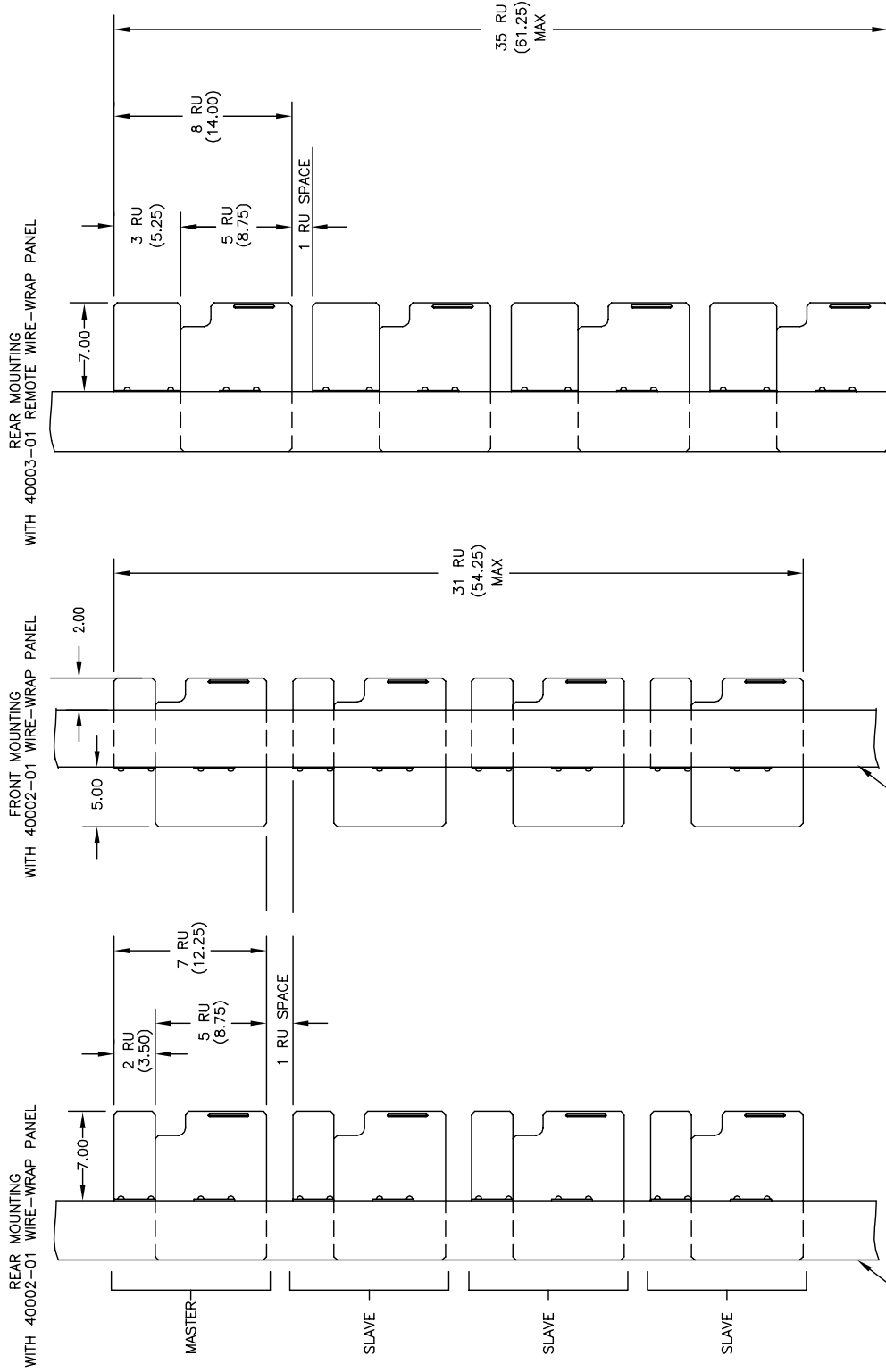
REAR MOUNTING
WITH 40004-01 WIRE-WRAP PANEL (MASTER)
AND 40002-01 WIRE-WRAP PANEL (EXPANSION)



ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			
DWG. NO. 097-40000-41		DWG. SIZE 1	ISSUE 1
APT31		SHEET	31 of 35

DCD-400

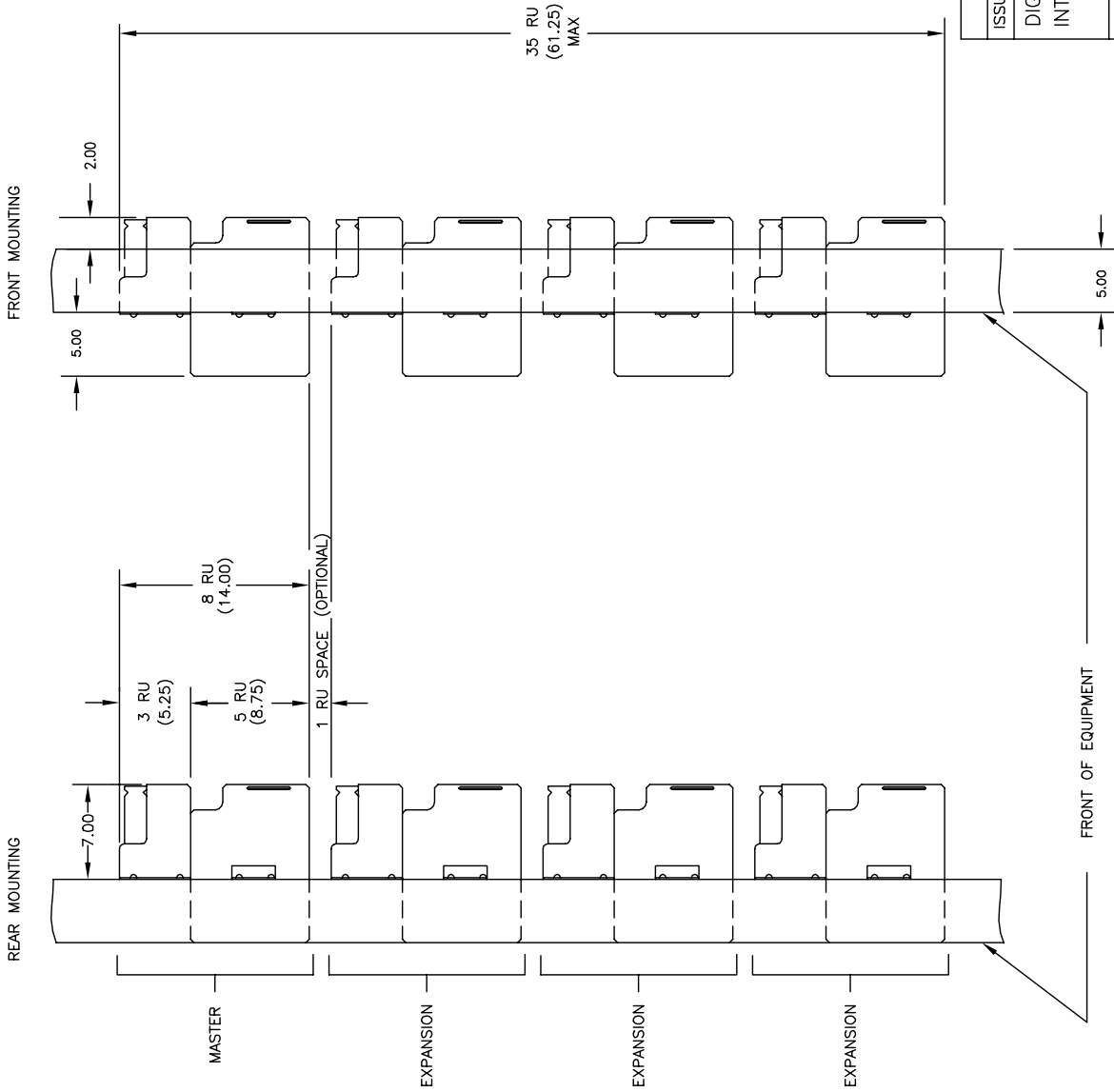
RECOMMENDED RACK MOUNTING CONFIGURATIONS
EQUIPMENT SHOWN MOUNTED ON UNEQUAL FLANGE DUCT TYPE RACK.
CAN BE MOUNTED ON ANSI/EIA STANDARD TYPE RACK.



ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS			ISSUE 1
DWG. NO. 097-40000-41			SHEET 32 of 35

DCD—CIM

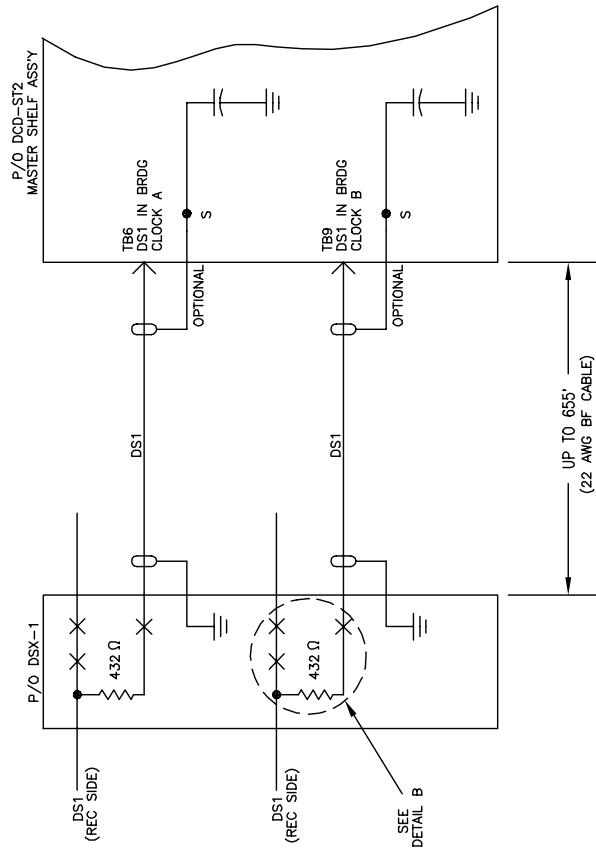
RECOMMENDED RACK MOUNTING CONFIGURATIONS
EQUIPMENT SHOWN MOUNTED ON UNEQUAL FLANGE DUCT TYPE RACK.



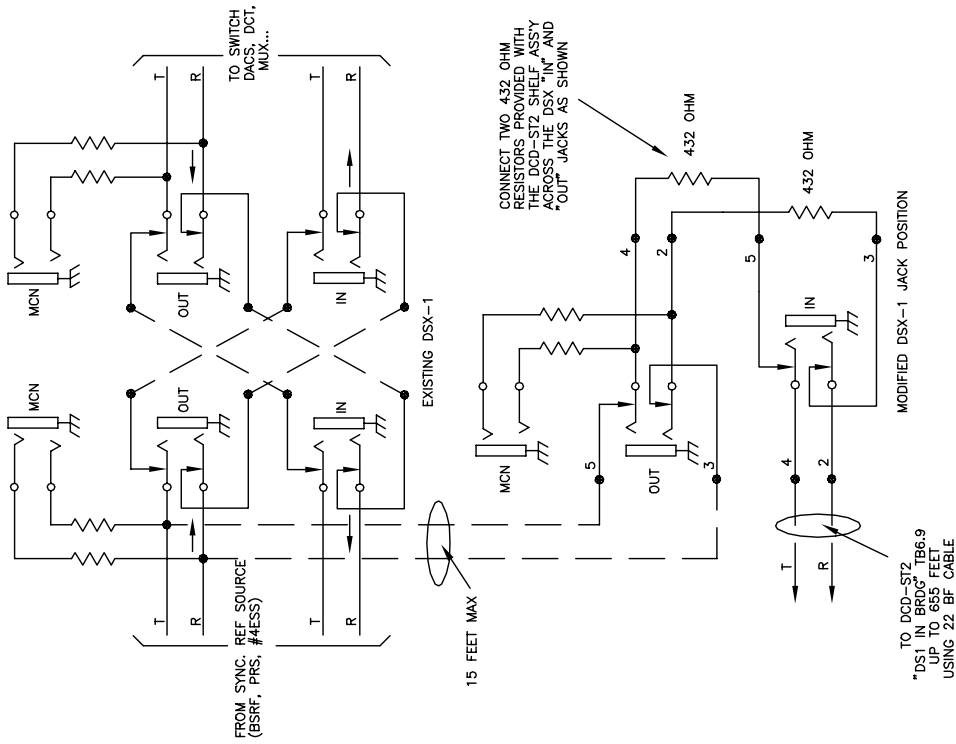
ISSUE	DESCRIPTION	DATE	APPVD
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING TELECOM SOLUTIONS		RATING	
APT33		DWG. SIZE	ISSUE
DWG. NO. 097-40000-41		1	SHEET
		33 OF 35	

DCD DS1 TYPICAL BRIDGING CONNECTIONS

(SEE NOTES 85 & 86)



DETAIL A

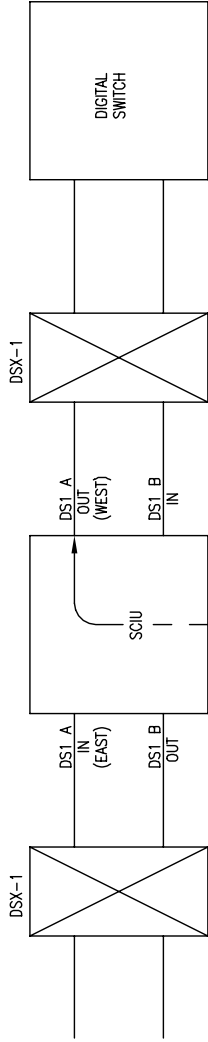


DETAIL B

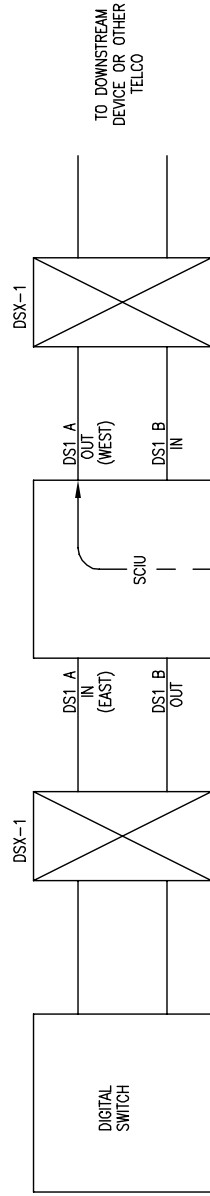
ISSUE	DESCRIPTION	DATE	APPVD
RATING			
DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING			
TELECOM SOLUTIONS			
DWG. NO.		097-40000-41	
APT34		SHEET 34 OF 35	
ISSUE		ISSUE 1	
DWG. SIZE		1	

DETAIL C

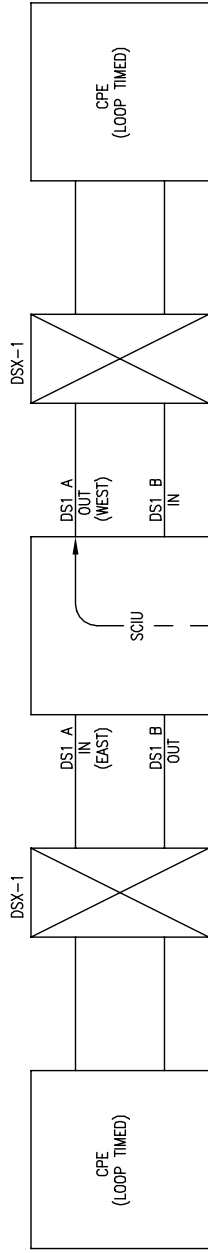
SCIU TIMING APPLICATIONS
(SEE NOTE 82)



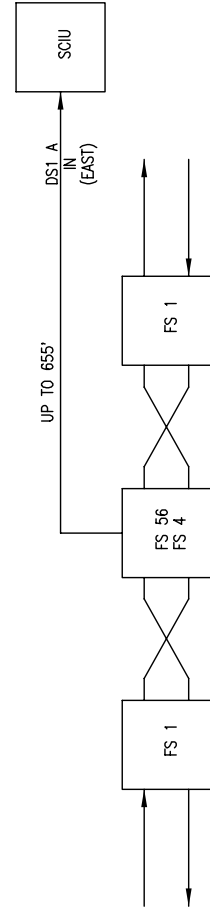
A. SWITCH FEEDS



B. DOWNSTREAM TIMING



C. SPECIAL SERVICES TIMING



D. SYNC MONITORING

ISSUE	DESCRIPTION	DATE	APPVD
	DIGITAL CLOCK DISTRIBUTOR INTERCONNECTION DRAWING		
	TELECOM SOLUTIONS		
DWG. NO. 097-40000-41		RATING	
APT35		DWG. SIZE	ISSUE
		1	SHEET
			35 OF 35