Interface Manual

Simulcast System
Control Point
(RS232 Data and T1 Multiplexers)

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ERICSSON

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NOTICE!

Repairs to this equipment should be made only by an authorized service technician or facility designated by the supplier. Any repairs, alterations or substitutions 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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DESCRIPTION

The purpose of this manual is to serve as an interface reference document for the Control Point equipment, including a Control Point with a co-located Transmit Site. This manual defines the interface between the Intraplex T1 Multiplex Equipment and the Ericsson Simulcast Equipment. The Interface Manual contains the standard floor plan and configuration drawings for Ericsson and Intraplex vendor equipment, Interrack Cabling Diagrams, Jack Pinouts, Field Wiring Diagrams and Multiplex Crossconnect Interconnection Diagrams for up to 24 channels, and Module Identification and Wire Connection Lists for the voter Crossconnect and interrack cabling. This manual is applicable only to systems using the T1 Multiplex equipment.

The interface equipment provides the electrical interface between the analog and digital voter racks, the multiplex equipment, and the simulcast equipment racks. The multiplex racks contain the Intraplex Multiplex equipment, the Digital Voter Crossconnect, Analog Voter Crossconnect, and Multiplex Crossconnect Panels for each site as well as the Microwave Distribution Panel, Timing Concentrator, and Telephone Interconnect Panels. The Simulcast Racks include the GETC, Digital, Test, Audio, and RIC Racks. They also contain the Timing and Station Voter Interface modules and jackfields.

NOTE

The Intraplex multiplex equipment is factory prealigned and configured, i.e., all jumpers and switches have been pre-positioned at the factory. Field adjustment of the multiplex equipment is not normally required.

Refer to Intraplex TDM-160 Series T1 Multiplexer Operation and Maintenance Manual for information specific to their equipment.

INTERFACE CABLING DIAGRAM

Control Point Interface Cabling Diagram 19C852607 identifies all cable terminations within the multiplex equipment racks and between the multiplex equipment racks and the Simulcast Control Point and Analog and Digital Voters. The Analog and Digital Voters interface with the related Voter Crossconnect Panel on the multiplex equipment racks. The multiplex interfaces with the jackfields on the simulcast Digital or Audio Racks. The Telephone Interface Panel interfaces with A600 jackfield and Modules 1 and 2 of Panel 1 on the RIC rack. Channels 1-12 and 13-24 from the Digital Voter Crossconnect Panel interface with panels 1 and 2 of Module 2 on the GETC rack. The Microwave Distribution Panels interconnect with the jackfields on the simulcast Digital and Audio Racks. The Timing Concentrator interfaces with the Timing Interface Module in the Digital Rack. All system control and alarm signals from the multiplex crossconnects interface with the Test Rack.

CONFIGURATION DIAGRAMS

The Configuration Diagrams identify the type of equipment contained in each shelf, the shelf function, and, where applicable, the site and channel associations. The Intraplex Shelf Configuration Diagrams (19C852610) identify the slot location of each module within the shelf, the module function, Intraplex Part Number, and the T1 time slot (s) each is associated with.

CONNECTION LISTS

Connection List 350A1219 identifies the shelf and module numbers of the Intraplex equipment and includes a cable connection list for all internal rack cabling. The connection list identifies all cable part numbers and their function and destination. Information for external interrack cabling is defined on drawing 350A1218.

MULTIPLEX CROSSCONNECTS

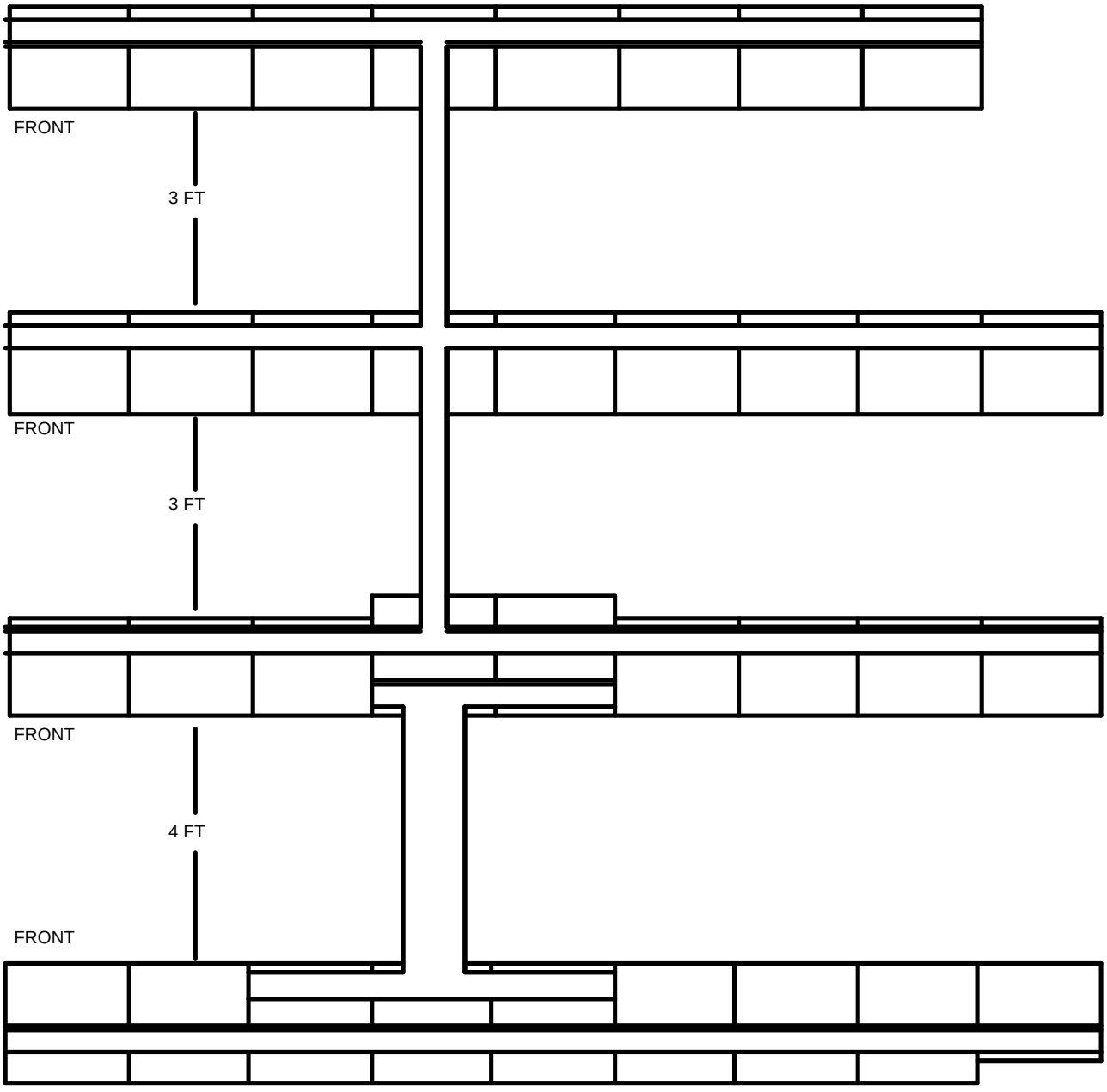
The Multiplex Crossconnect Charts trace the various system digital, analog, and control functions through The Multiplex Crossconnect Panel to their termination point on the associated modules at each site in the system. A separate chart is provided for the 5, 10, 15 and 20/24 channel configurations. A legend included on the drawing defines the acronyms used.

A separate chart defines the same type of information for the Multiplex Distribution Panel at the Control Point for systems with 2, 4 and 10 sites.

FLOOR PLAN

FLOOR PLAN, SIMULCAST SYSTEM

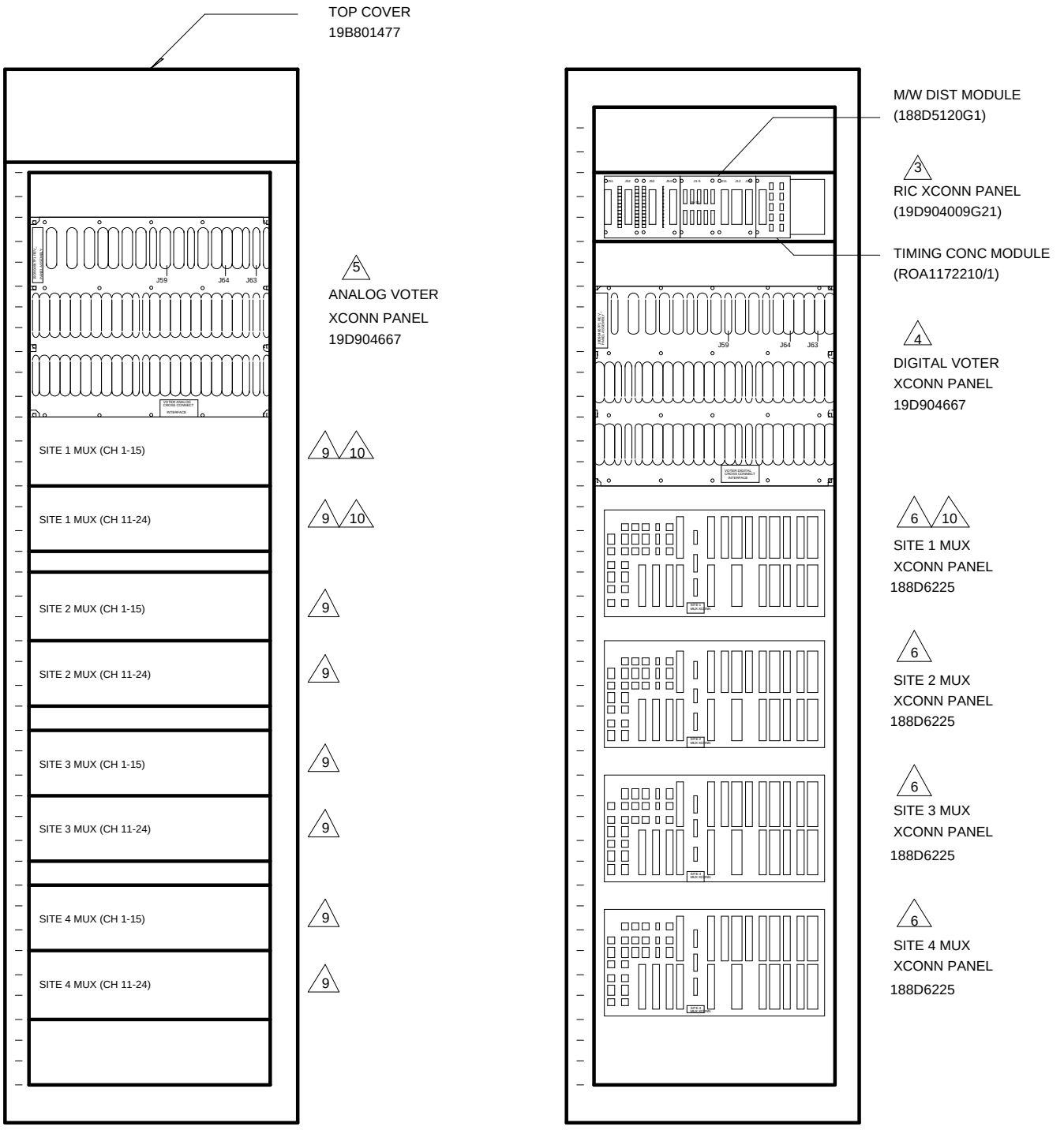
(19C852605 Sh. 1 Rev. 1)



DUCTWORK INSTALLATION GUIDE

FLOOR PLAN, SIMULCAST SYSTEM

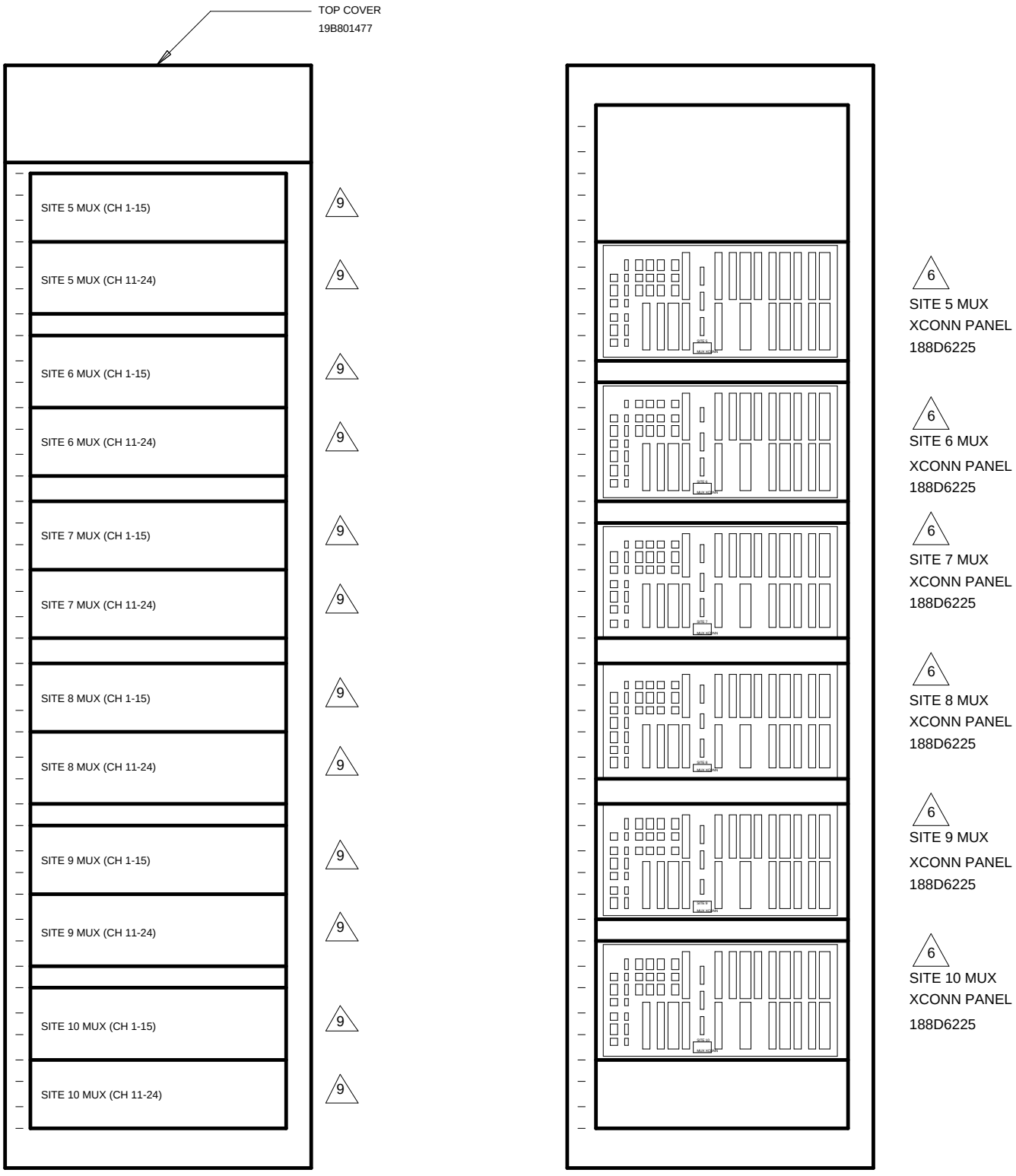
(19C852605 Sh. 2 Rev. 1)



3. ENABLE APPLICABLE RIC CIRCUITS (REF 19D904679 DIAGRAM)
4. FOR CONNECTOR PIN-OUT DETAILS SEE 19D904931
5. FOR CONNECTOR PIN-OUT DETAILS SEE 19D904932
6. FOR CONNECTOR PIN-OUT DETAILS SEE 19C852611

10 - 24 CHANNELS, 1 - 4 SITES (RS-232 DATA) VOTER/MICROWAVE INTERFACE CABINET

(188D5012 Sh. 2 Rev. 1A)



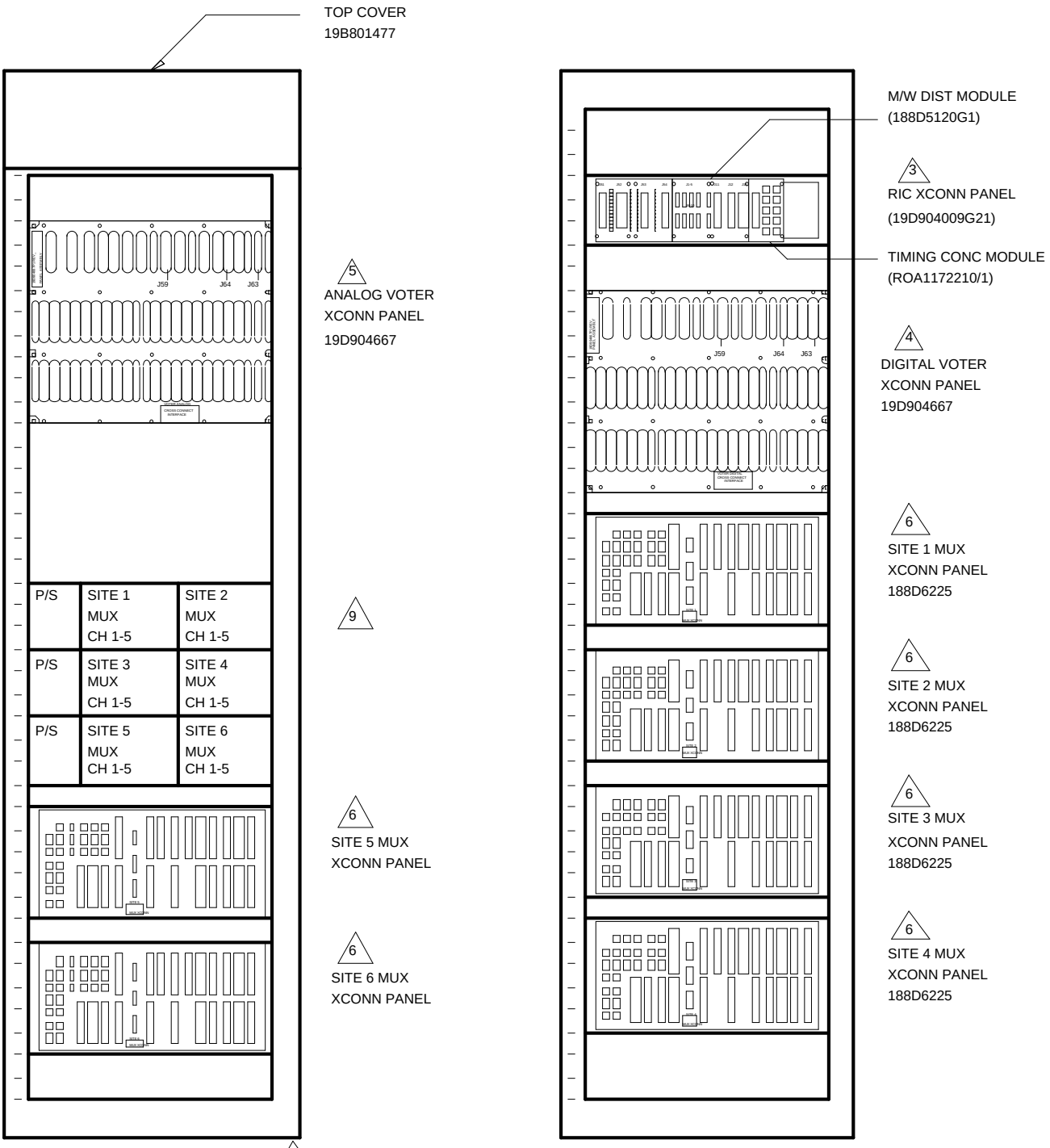
NOTES

6. FOR CONNECTOR PIN-OUT DETAILS SEE 19C852611

9. SEE 19C852610 FOR SHELF ASSEMBLY DETAILS
BRACE MUX SHELVES WITH 19D904490P1 REAR SUPPORTS

10 - 24 CHANNELS, 5 - 10 SITES (RS-232 DATA) VOTER/MICROWAVE INTERFACE CABINET

(188D5012 Sh. 3 Rev. 1A)



3. ENABLE APPLICABLE RIC CIRCUITS (REF 19D904679 DIAGRAM)

4. FOR CONNECTOR PIN-OUT DETAILS SEE 19D904931

5. FOR CONNECTOR PIN-OUT DETAILS SEE 19D904932

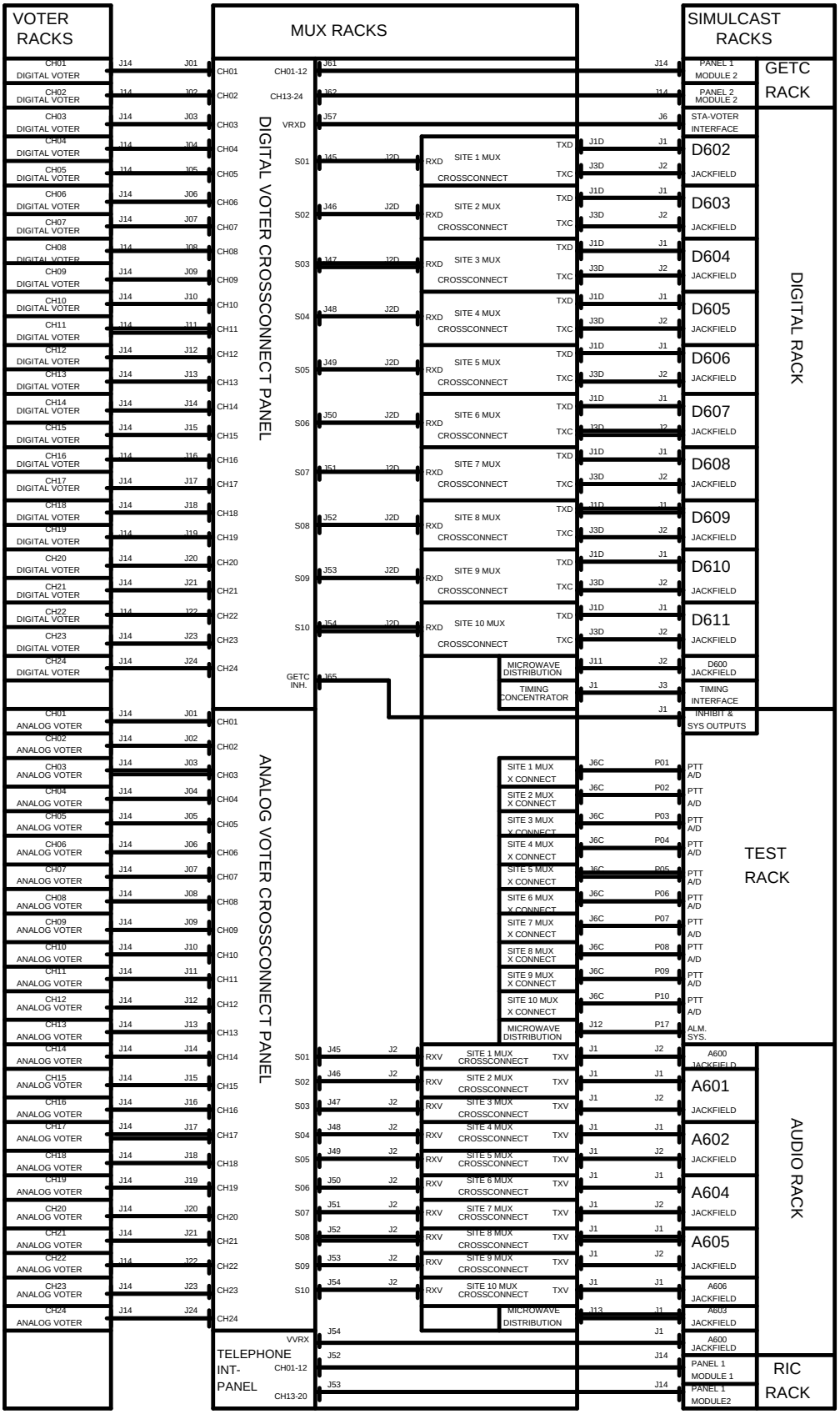
6. FOR CONNECTOR PIN-OUT DETAILS SEE 19C852611

9. SEE 19C852610 FOR SHELF ASSEMBLY DETAILS
BRACE MUX SHELVES WITH 19D904490P1 SUPPORTS

10. IF SITE 1 IS CO-LOCATED, NO C/P MUX OR X-CONN IS REQUIR

DUAL 5 CHANNEL CONFIGURATION, (RS-232 DATA) VOTER/MICROWAVE INTERFACE CABINET

(188D5012 Sh. 4 Rev. 1A)



INTERFACE CABLING DIAGRAM

(19C852607 Sh. 1,Rev. 1)

MODULE IDENTIFICATION

SHELF AND MODULE NUMBERS*

INTRAPLEX MUX SHELF	1PX- 160 - XXX
POWER MODULE	PS - 50XXX
COMMON MODULE	CM - 3A
TIMING MODULE	TM - 5
2 CH DUAL E & M VF	VF5B1
5 CH 9600 DATA	D6961D
DUAL PGM ENC MODULE	PT - 355 (OR PT - 150A)
DUAL PGM DEC MODULE	PR - 355 (OR PT - 150A)

S01 - S04 Rack Application Asm 188D5012P3
S05 - S10 Rack Application Asm 188D5012P4
Dual 5 Ch Rack Application Asm 188D5012P5

PART 2 - MUX SHELF CONNECTION LIST (Per Site)

Function	From	To	Drawing Number
CH1 - 4 V	MA - 301- M1	MX - J11	19D903985P94
CH5 - 10V	MA - 301- M2	MX - J13	19D903985P94
CH11- 16V	MA - 301- E1	MX - J14	19D903985P94
CH17- 22V	MA - 301- E2	MX - J15	19D903985P94
CH23- 24V	MA - 301- E3	MX - J16	19D903985P94
300/2400	MA - 503 - T1 (BR) R1 (T) G (R) T2 (T) R2 (O)	MX - J12C	19B803997P2
CH01D	MA - 404 - M1J1	MX - J11D	19D903880P161
CH02D	MA - 404 - M1J2	MX - J12D	19D903880P161
CH03D	MA - 404 - M1J3	MX - J13D	19D903880P161
CH04D	MA - 404 - M1J4	MX - J14D	19D903880P161
CH05D	MA - 404 - M1J5	MX - J15D	19D903880P161
CH06D	MA - 404 - M2J1	MX - J16D	19D903880P161
CH07D	MA - 404 - M2J2	MX - J17D	19D903880P161
CH08D	MA - 404 - M2J3	MX - J18D	19D903880P161
CH09D	MA - 404 - M2J4	MX - J19D	19D903880P161
CH10D	MA - 404 - M2J5	MX - J20D	19D903880P161
CH11D	MA - 404 - E1J1	MX - J21D	19D903880P161
CH12D	MA - 404 - E1J2	MX - J22D	19D903880P161
CH13D	MA - 404 - E1J3	MX - J23D	19D903880P161
CH14D	MA - 404 - E1J4	MX - J24D	19D903880P161
CH15D	MA - 404 - E1J5	MX - J25D	19D903880P161
CH16D	MA - 404 - E2J1	MX - J26D	19D903880P161
CH17D	MA - 404 - E2J2	MX - J27D	19D903880P161
CH18D	MA - 404 - E2J3	MX - J28D	19D903880P161
CH19D	MA - 404 - E2J4	MX - J29D	19D903880P161
CH20D	MA - 404 - E2J5	MX - J30D	19D903880P161

*For module location, see 19C852610.

VOTER CROSS CONNECT & MULTIPLEX EQUIPMENT
INTRARACK WIRING, RS-232 VERSION

(350A1219 Sh. 1 Rev. 1)

Function	From	To	Drawing Number
CH21D	MA - 404 - E3J1	MX - J31D	19D903880P161
CH22D	MA - 404 - E3J2	MX - J32D	19D903880P161
CH23D	MA - 404 - E3J3	MX - J33D	19D903880P161
CH24D	MA - 404 - E3J4	MX - J34D	19D903880P161

PART 3 MW DIST PANEL CONNECTION LIST

Function	From	To	Drawing Number
SITE 01	MDP - J1	S01-MX-J7C	19B803811P4
SITE 02	MDP - J2	S02-MX-J7C	19B803811P4
SITE 03	MDP - J3	S03-MX-J7C	19B803811P4
SITE 04	MDP - J4	S04-MX-J7C	19B803811P4
SITE 05	MDP - J5	S05-MX-J7C	19B803811P6
SITE 06	MDP - J6	S06-MX-J7C	19B803811P6
SITE 07	MDP - J7	S07-MX-J7C	19B803811P6
SITE 08	MDP - J8	S08-MX-J7C	19B803811P6
SITE 09	MDP - J9	S09-MX-J7C	19B803811P7
SITE 10	MDP - J10	S10-MX-J7C	19B803811P7

PART 4- TIMING CONCENTRATOR CONNECTION LIST

Function	From	To	Drawing Number
SITE 01	TCP - J11	S01-MX-J4C	19D903880P161
SITE 02	TCP - J12	S02-MX-J4C	19D903880P161
SITE 03	TCP - J13	S03-MX-J4C	19D903880P161
SITE 04	TCP - J14	S04-MX-J4C	19D903880P161
SITE 05	TCP - J16	S06-MX-J4C	19D903880P162
SITE 07	TCP - J17	S07-MX-J4C	19D903880P162
SITE 08	TCP - J18	S08-MX-J4C	19D903880P162
SITE 09	TCP - J19	S09-MX-J4C	19D903880P162
SITE 10	TCP - J20	S10-MX-J4C	19D903880P162

PART 5- VOTER CROSS CONNECTION LIST

Function	From	To	Drawing Number
	DVX - J59	DVX - J64	19D903880P120
	AVX - J58	AVX - J66	19D903880P120
	DVX - J63	AVX - J63	19D903880P120
	AVX - J57	TIP - J51	19D903880P120

PART 1 - ONE CHANNEL VOTER

Function	FROM	TO	LENGTH	DRAWING NUMBER
VOTER DATA	CH01DV - J14	DVX - J01	11'	19D903880P121
VOTER DATA	CH02DV - J14	DVX - J02	9'	19D903880P123
VOTER DATA	CH03DV - J14	DVX - J03	7'	19D903880P122
VOTER DATA	CH04DV - J14	DVX - J04	10'	19D903880P123
VOTER DATA	CH05DV - J14	DVX - J05	12'	19D903880P121
VOTER DATA	CH06DV - J14	DVX - J06	14'	19D903880P121
VOTER DATA	CH07DV - J14	DVX - J07	16'	19D903880P124
VOTER DATA	CH08DV - J14	DVX - J08	17'	19D903880P124
VOTER DATA	CH09DV - J14	DVX - J09	15'	19D903880P121
VOTER DATA	CH10DV - J14	DVX - J10	13'	19D903880P121
VOTER DATA	CH11DV - J14	DVX - J11	12'	19D903880P121
VOTER DATA	CH12DV - J14	DVX - J12	14'	19D903880P121
VOTER DATA	CH13DV - J14	DVX - J13	16'	19D903880P124
VOTER DATA	CH14DV - J14	DVX - J14	18'	19D903880P124
VOTER DATA	CH15DV - J14	DVX - J15	20'	19D903880P124
VOTER DATA	CH16DV - J14	DVX - J16	22'	19D903880P125
VOTER DATA	CH17DV - J14	DVX - J17	22'	19D903880P125
VOTER DATA	CH18DV - J14	DVX - J18	20'	19D903880P124
VOTER DATA	CH19DV - J14	DVX - J19	18'	19D903880P124
VOTER DATA	CH20DV - J14	DVX - J20	17'	19D903880P124
VOTER DATA	CH21DV - J14	DVX - J21	19'	19D903880P124
VOTER DATA	CH22DV - J14	DVX - J22	21'	19D903880P125
VOTER DATA	CH23DV - J14	DVX - J23	23'	19D903880P125
VOTER DATA	CH24DV - J14	DVX - J24	25'	19D903880P125
VOTER AUDIO	CH01AV - J14	AVX - J01	11'	19D903880P121
VOTER AUDIO	CH02AV - J14	AVX - J02	9'	19D903880P123
VOTER AUDIO	CH03AV - J14	AVX - J03	7'	19D903880P122
VOTER AUDIO	CH04AV - J14	AVX - J04	10'	19D903880P123
VOTER AUDIO	CH05AV - J14	AVX - J05	12'	19D903880P121
VOTER AUDIO	CH06AV - J14	AVX - J06	14'	19D903880P121
VOTER AUDIO	CH07AV - J14	AVX - J07	16'	19D903880P124
VOTER AUDIO	CH08AV - J14	AVX - J08	17'	19D903880P124
VOTER AUDIO	CH09AV - J14	AVX - J09	15'	19D903880P121
VOTER AUDIO	CH10AV - J14	AVX - J10	13'	19D903880P121
VOTER AUDIO	CH11AV - J14	AVX - J11	12'	19D903880P121
VOTER AUDIO	CH12AV - J14	AVX - J12	14'	19D903880P121
VOTER AUDIO	CH13AV - J14	AVX - J13	16'	19D903880P124
VOTER AUDIO	CH14AV - J14	AVX - J14	18'	19D903880P124
VOTER AUDIO	CH15AV - J14	AVX - J15	20'	19D903880P124
VOTER AUDIO	CH16AV - J14	AVX - J16	22'	19D903880P125
VOTER AUDIO	CH17AV - J14	AVX - J17	22'	19D903880P125
VOTER AUDIO	CH18AV - J14	AVX - J18	20'	19D903880P124
VOTER AUDIO	CH19AV - J14	AVX - J19	18'	19D903880P124
VOTER AUDIO	CH20AV - J14	AVX - J20	17'	19D903880P124
VOTER AUDIO	CH21AV - J14	AVX - J21	19'	19D903880P124
VOTER AUDIO	CH22AV - J14	AVX - J22	21'	19D903880P125
VOTER AUDIO	CH23AV - J14	AVX - J23	23'	19D903880P125
VOTER AUDIO	CH24AV - J14	AVX - J24	25'	19D903880P125

*Refer to Interconnection Cabling Diagram 19C852607

VOTER, MULTIPLEX, & SIMULCAST RACKS
INTERRACK WIRING, RS-232 VERSION

(350A1218 Sh. 1, Rev. 1)

PART 2- TWO CHANNEL VOTER

Function	FROM	TO	LENGTH	DRAWING NUMBER
VOTER DATA	CH01/02 DV - J14	DVX - J25	11'	19D903880P121
VOTER DATA	CH03/04 DV - J14	DVX - J26	9'	19D903880P123
VOTER DATA	CH05/06 DV - J14	DVX - J27	7'	19D903880P122
VOTER DATA	CH07/08 DV - J14	DVX - J28	10'	19D903880P123
VOTER DATA	CH09/10 DV - J14	DVX - J29	12'	19D903880P121
VOTER DATA	CH11/12 DV - J14	DVX - J30	14'	19D903880P121
VOTER DATA	CH13/14 DV - J14	DVX - J31	16'	19D903880P124
VOTER DATA	CH15/16 DV - J14	DVX - J32	17'	19D903880P124
VOTER DATA	CH17/18 DV - J14	DVX - J33	15'	19D903880P121
VOTER DATA	CH19/20 DV - J14	DVX - J34	13'	19D903880P121
VOTER DATA	CH21/22 DV - J14	DVX - J35	12'	19D903880P121
VOTER DATA	CH23/24 DV - J14	DVX - J36	14'	19D903880P121
VOTER AUDIO	CH01/02 AV - J14	AVX - J25	11'	19D903880P121
VOTER AUDIO	CH03/04 AV - J14	AVX - J26	9'	19D903880P123
VOTER AUDIO	CH05/06 AV - J14	AVX - J27	7'	19D903880P122
VOTER AUDIO	CH07/08 AV - J14	AVX - J28	10'	19D903880P123
VOTER AUDIO	CH09/10 AV - J14	AVX - J29	12'	19D903880P121
VOTER AUDIO	CH11/12 AV - J14	AVX - J30	14'	19D903880P121
VOTER AUDIO	CH13/14 AV - J14	AVX - J31	16'	19D903880P124
VOTER AUDIO	CH15/16 AV - J14	AVX - J32	17'	19D903880P124
VOTER AUDIO	CH17/18 AV - J14	AVX - J33	15'	19D903880P121
VOTER AUDIO	CH19/20 AV - J14	AVX - J34	13'	19D903880P121
VOTER AUDIO	CH21/22 AV - J14	AVX - J35	12'	19D903880P121
VOTER AUDIO	CH23/24 AV - J14	AVX - J36	14'	19D903880P121

PART 3 THREE CHANNEL VOTER

	FROM	TO	LENGTH	DRAWING NUMBER
VOTER DATA	CH01-03 DV - J14	DVX - J37	11'	19D903880P121
VOTER DATA	CH04-06 DV - J14	DVX - J38	9'	19D903880P123
VOTER DATA	CH07-09 DV - J14	DVX - J39	7'	19D903880P122
VOTER DATA	CH10-12 DV - J14	DVX - J40	10'	19D903880P123
VOTER DATA	CH13-15 DV - J14	DVX - J41	12'	19D903880P121
VOTER DATA	CH16-18 DV - J14	DVX - J42	14'	19D903880P121
VOTER DATA	CH19-21 DV - J14	DVX - J43	16'	19D903880P124
VOTER DATA	CH22-24 DV - J14	DVX - J44	23'	19D903880P125
VOTER AUDIO	CH01-03 AV - J14	AVX - J37	11'	19D903880P121
VOTER AUDIO	CH04-06 AV - J14	AVX - J38	9'	19D903880P123
VOTER AUDIO	CH07-09 AV - J14	AVX - J39	7'	19D903880P122
VOTER AUDIO	CH10-12 AV - J14	AVX - J40	10'	19D903880P123
VOTER AUDIO	CH13-15 AV - J14	AVX - J41	12'	19D903880P121
VOTER AUDIO	CH16-18 AV - J14	AVX - J42	14'	19D903880P121
VOTER AUDIO	CH19-21 AV - J14	AVX - J43	16'	19D903880P124
VOTER AUDIO	CH22-24 AV - J14	AVX - J44	23'	19D903880P125

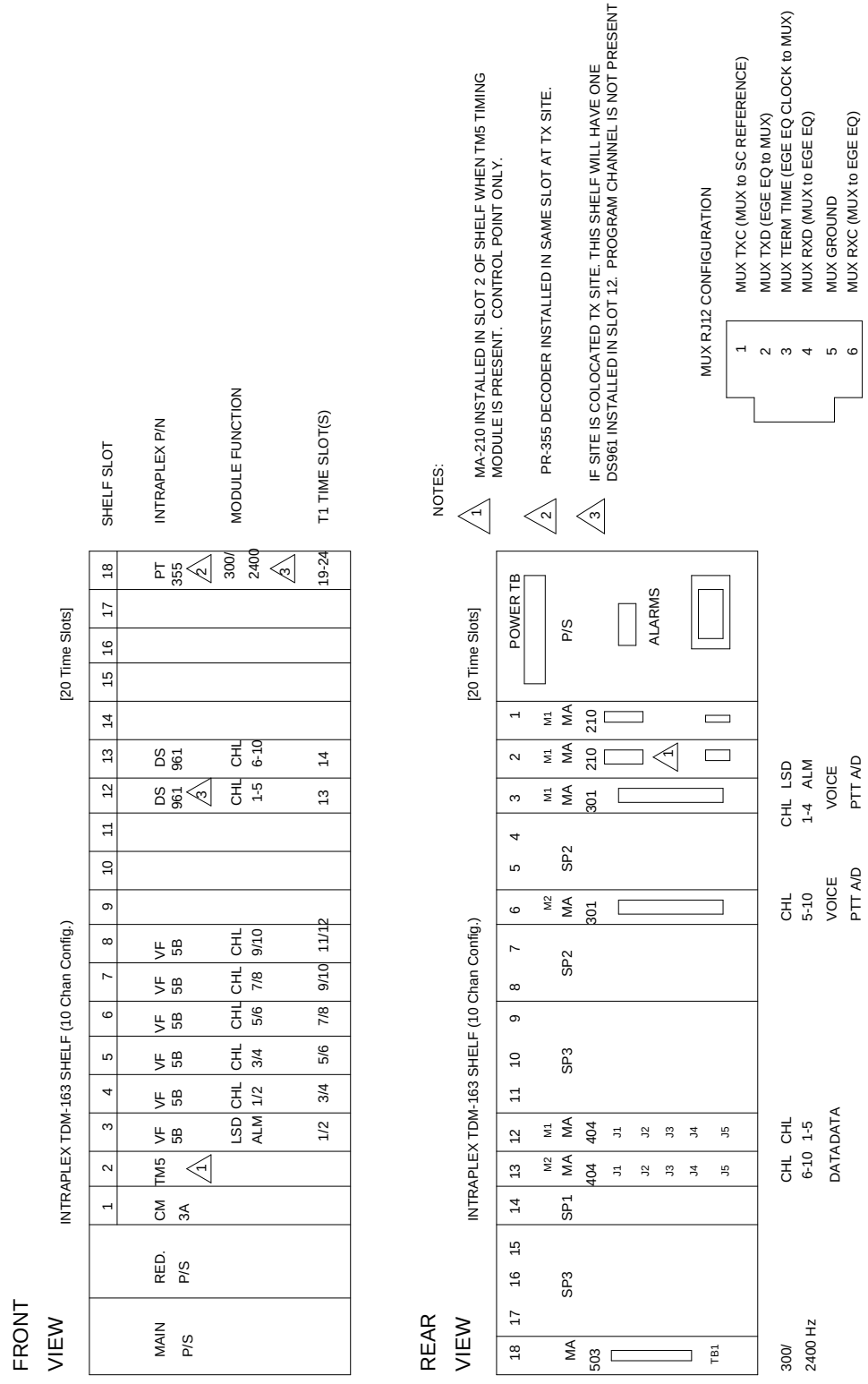
PART 4 - TEN SITE SIMULCAST CONTROL POINT

Function	FROM	TO	LENGTH	DRAWING NUMBER
TXD	D602 - J1	S01MX - J1D	21'	19D903880P125
TXD	D603 - J1	S02MX - J1D	22'	19D903880P125
TXD	D604 - J1	S03MX - J1D	23'	19D903880P125
TXD	D605 - J1	S04MX - J1D	25'	19D903880P125
TXD	D606 - J1	S05MX - J1D	23'	19D903880P125
TXD	D607 - J1	S06MX - J1D	24'	19D903880P125
TXD	D608 - J1	S07MX - J1D	25'	19D903880P125
TXD	D609 - J1	S08MX - J1D	27'	19D903880P126
TXD	D610 - J1	S09MX - J1D	28'	19D903880P126
TXD	D611 - J1	S10MX - J1D	29'	19D903880P126
TXC	D602 - J2	S01MX - J3D	21'	19D903880P125
TXC	D603 - J2	S02MX - J3D	22'	19D903880P125
TXC	D604 - J2	S03MX - J3D	23'	19D903880P125
TXC	D605 - J2	S04MX - J3D	25'	19D903880P125
TXC	D606 - J2	S05MX - J3D	23'	19D903880P125
TXC	D607 - J2	S06MX - J3D	24'	19D903880P125
TXC	D608 - J2	S07MX - J3D	25'	19D903880P125
TXC	D609 - J2	S08MX - J3D	27'	19D903880P126
TXC	D610 - J2	S09MX - J3D	28'	19D903880P126
TXC	D611 - J2	S10MX - J3D	29'	19D903880P126
RXD	S01MX - J2D	DVX - J45	4'	19D903880P120
RXD	S02MX - J2D	DVX - J46	6'	19D903880P122
RXD	S03MX - J2D	DVX - J47	8'	19D903880P123
RXD	S04MX - J2D	DVX - J48	9'	19D903880P123
RXD	S05MX - J2D	DVX - J49	9'	19D903880P123
RXD	S06MX - J2D	DVX - J50	11'	19D903880P121
RXD	S07MX - J2D	DVX - J51	13'	19D903880P121
RXD	S08MX - J2D	DVX - J52	14'	19D903880P121
RXD	S09MX - J2D	DVX - J53	16'	19D903880P124
RXD	S10MX - J2D	DVX - J54	17'	19D903880P124
VRXD	SVIP - J6	DVX - J57	15'	19D903880P121
TXV	A600 - J2	S01MX - J1	24'	19D903880P125
TXV	A601 - J1	S02MX - J1	25'	19D903880P125
TXV	A601 - J2	S03MX - J1	26'	19D903880P126
TXV	A602 - J1	S04MX - J1	28'	19D903880P126
TXV	A602 - J2	S05MX - J1	25'	19D903880P125
TXV	A604 - J1	S06MX - J1	26'	19D903880P126
TXV	A604 - J2	S07MX - J1	27'	19D903880P126
TXV	A605 - J1	S08MX - J1	29'	19D903880P126
TXV	A605 - J2	S09MX - J1	30'	19D903880P126
TXV	A606 - J1	S10MX - J1	31'	19D903880P127
RXV	S01MX - J2	AVX - J45	6'	19D903880P122
RXV	S02MX - J2	AVX - J46	8'	19D903880P123
RXV	S03MX - J2	AVX - J47	10'	19D903880P123

Function	FROM	TO	LENGTH	DRAWING NUMBER
RXV	S04MX - J2	AVX - J48	11'	19D903880P121
RXV	S05MX - J2	AVX - J49	11'	19D903880P121
RXV	S06MX - J2	AVX - J50	13'	19D903880P121
RXV	S07MX - J2	AVX - J51	15'	19D903880P121
RXV	S08MX - J2	AVX - J52	16'	19D903880P124
RXV	S09MX - J2	AVX - J53	18'	19D903880P124
RXV	S10MX - J2	AVX - J54	19'	19D903880P124
VVRX	A600 - J1	TIP - J54	23'	19D903880P125
PTT A/D	TRCP - P01	S01MX -J6C	17'	19D903880P124
PTT A/D	TRCP - P02	S02MX -J6C	18'	19D903880P124
PTT A/D	TRCP - P03	S03MX -J6C	19'	19D903880P124
PTT A/D	TRCP - P04	S04MX -J6C	20'	19D903880P124
PTT A/D	TRCP - P05	S05MX -J6C	21'	19D903880P125
PTT A/D	TRCP - P06	S06MX -J6C	22'	19D903880P125
PTT A/D	TRCP - P07	S07MX -J6C	23'	19D903880P125
PTT A/D	TRCP - P08	S08MX -J6C	25'	19D903880P125
PTT A/D	TRCP - P09	S09MX -J6C	26'	19D903880P126
PTT A/D	TRCP - P10	S10MX -J6C	27'	19D903880P126
VOTER GETC DATA	GP1M2 - J14	DVX - J61	17'	19D903880P124
VOTER GETC DATA	GP2M2 - J14	DVX - J62	17'	19D903880P124
GETC INH.	ISO_ - J1	DVX - J65	16'	19D903880P124
RIC AUDIO	RP1M1 - J14	TIP - J52	21'	19D903880P125
RIC AUDIO	RP1M2 - J14	TIP - J53	21'	19D903880P125
300/2400	D600 - J2	MDP - J11	16'	19D903880P124
ALARM	TRCP - P17	MDP - J12	13'	19D903880P121
150D	A603 - J1	MDP - J13	20'	19D903880P124
TIMING	TIF - J3	TCP - J1	15'	19D903880P121

VOTER, MULTIPLEX, & SIMULCAST RACKS
INTERRACK WIRING, RS-232 VERSION

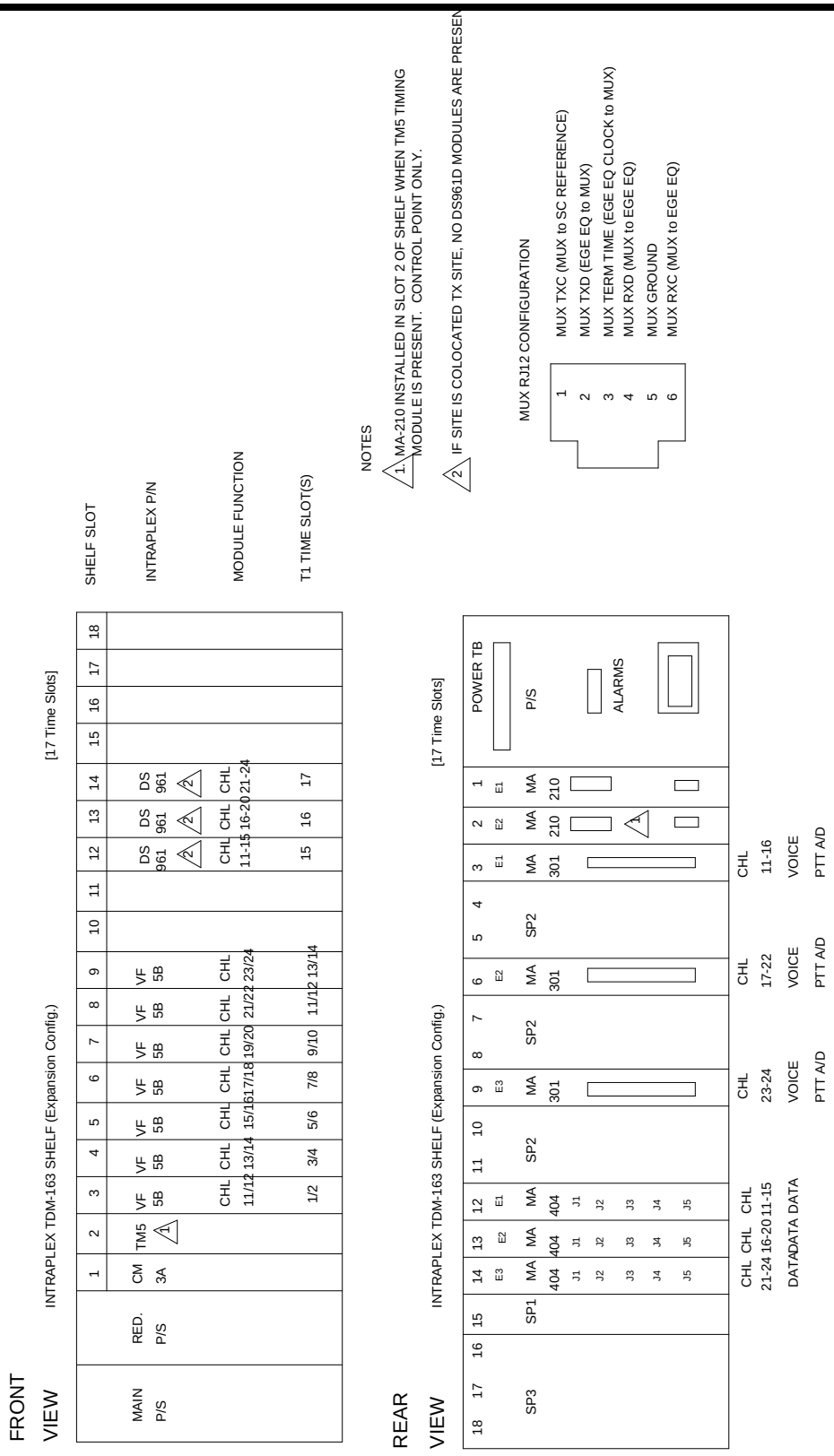
(350A1218 Sh. 4, Rev. 1)



CONTROL POINT & TRANSMIT SITE

INTRAPLEX MICROWAVE SHELF TDM-163, IPX-160-CB1/TB1

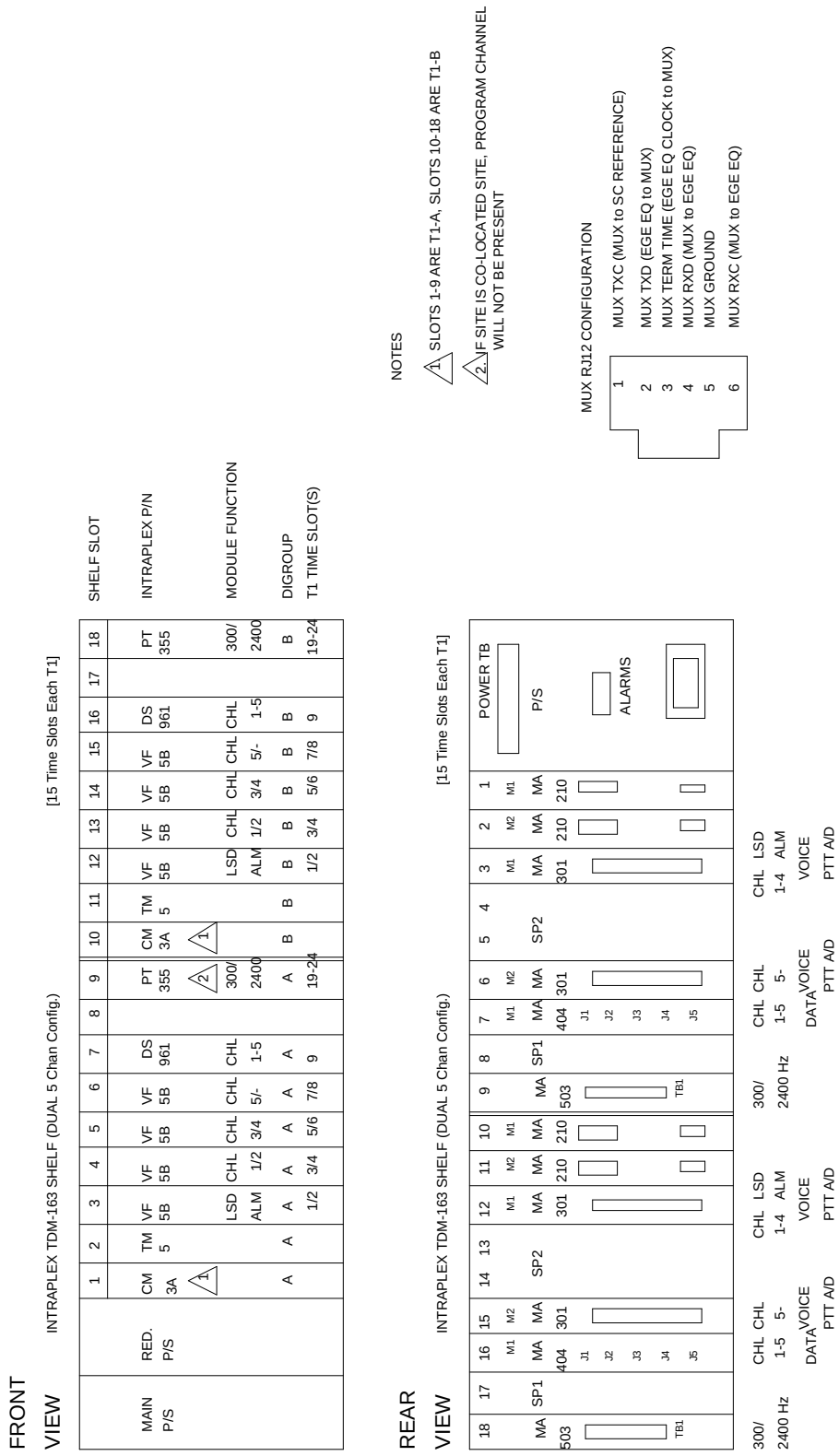
(19C852610 Sh. 1 Rev. 1)



CONTROL POINT & TRANSMIT SITE

MICROWAVE SHELF, (EXPANSION SHELF) TDM-163, IPX-160-CX1/TX1

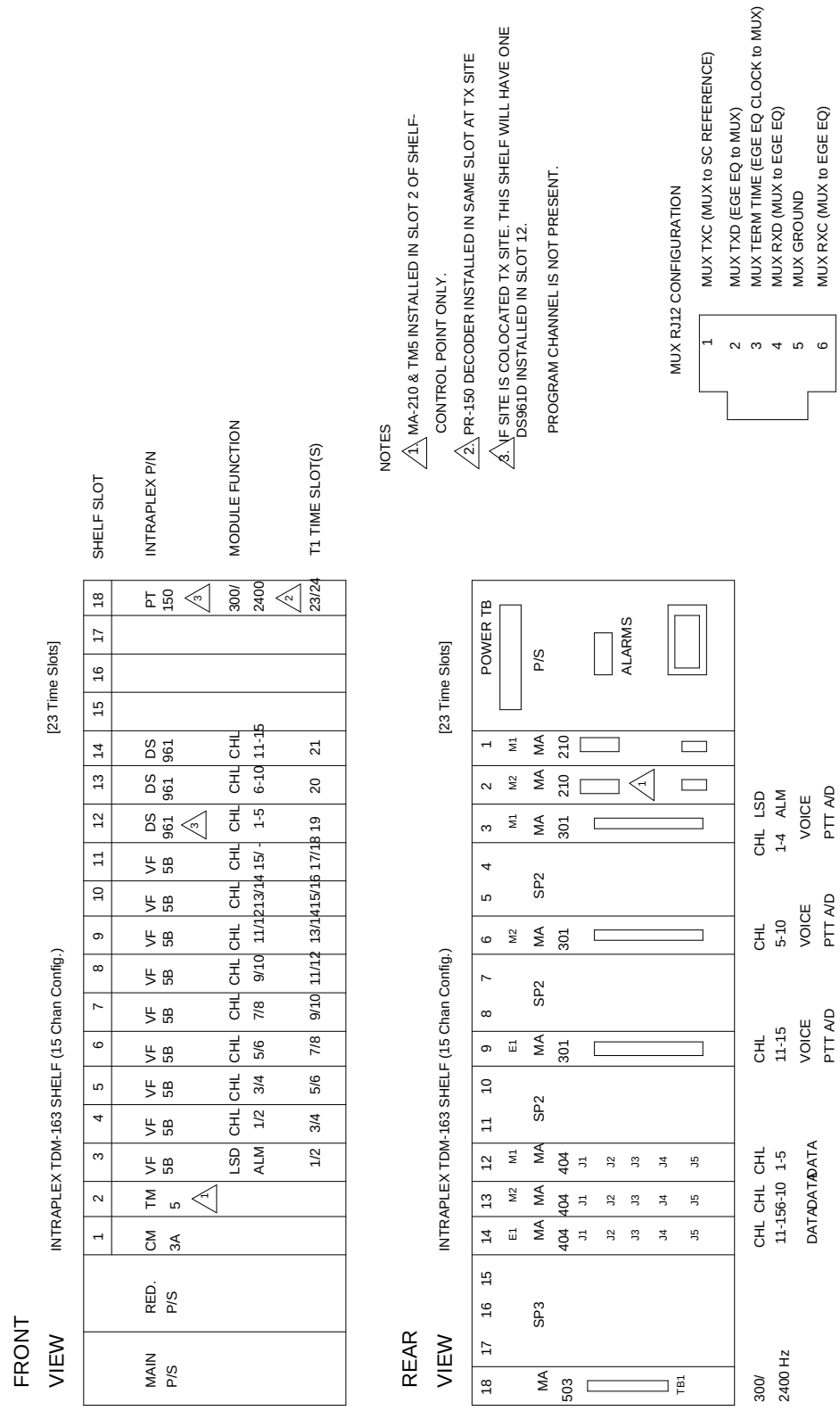
(19C852610 Sh. 2 Rev. 1)



CONTROL POINT & TRANSMIT SITE

INTRAPLEX MICROWAVE SHELF, DUAL 5-CHANNEL TDM-163, IPX-160-DUAL

(19C852610 Sh. 3 Rev. 1)



CONTROL POINT SITE

MICROWAVE SHELF CONFIGURATION TDM-163, IPX-160-CB2/TB2

(19C852610 Sh. 4, Rev. 1)

FUNCTION	MUX X-CONN	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5					
TXV CH01-24	J1	A600-J2	A601-J1	A601-J2	A602-J1	A602-J2					
RXV CH01-24	J2	AVX-J45	AVX-J46	AVX-J47	AVX-J48	AVX-J49					
PTT & A/D CH01-24	J6C	TRCP-P01	TRCP-P02	TRCP-P03	TRCP-P04	TRCP-P05					
SYNC, 150D & ALM T/R	J7C	MDP-J1	MDP-J2	MDP-J3	MDP-J4	MDP-J5					
PTT & A/D RETURN	J8C	TRCP-P11	S1-J9C	S2-J9C	S3-J9C	S4-J9C					
PTT & A/D RETURN	J9C	S2-J8C	S3-J8C	S4-J8C	S5-J8C	S6-J8C					
150D, ALM T/R CH01-04	J11	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1					
SYNC	J12C	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1					
TXV & RXV CH05-10	J13	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2					
TXV & RXV CH11-16	J14										
TXV & RXV CH17-22	J15										
TXV & RXV CH23-24	J16										
TXD CH01-24	J1D	D602-J1	D603-J1	D604-J1	D605-J1	D606-J1					
RXD CH01-24	J2D	ADX-J45	ADX-J46	ADX-J47	ADX-J48	ADX-J49					
TXC CH01-24	J3D	D602-J2	D603-J2	D604-J2	D605-J2	D606-J2					
CP TIME REF	J4C	TCP-J11	TCP-J12	TCP-J13	TCP-J14	TCP-J15					
CH01 DATA	J11D	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1					
CH02 DATA	J12D	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2					
CH03 DATA	J13D	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3					
CH04 DATA	J14D	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4					
CH05 DATA	J15D	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5					

NOTES:

1. AVX IS ANALOG VOTER X-CONNECT PANEL
2. TRCP IS TSET RACK CONNECTOR PANEL
3. MDP IS MULTIPLEX DISTRIBUTION PANEL
4. TCP IS TIMING CONCENTRATOR PANEL
5. ADX IS DIGITAL VOTER X-CONNECT PANEL

5- CHANNEL CONFIGURATION
MULTIPLEX CROSS CONNECT PANEL

(19C852600 Sh. 1 Rev. 1)

FUNCTION	MUX X-CONN	SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	SITE 7	SITE 8	SITE 9	SITE 10
TXV CH01-24	J1	A600-J2	A601-J1	A601-J2	A602-J1	A602-J2	A604-J1	A604-J2	A605-J1	A605-J2	A606-J1
RXV CH01-24	J2 /1	AVX-J45	AVX-J46	AVX-J47	AVX-J48	AVX-J49	AVX-J50	AVX-J51	AVX-J52	AVX-J53	AVX-J54
PTT & A/D CH01-24	J6C /3	TRCP-P01	TRCP-P02	TRCP-P03	TRCP-P04	TRCP-P05	TRCP-P06	TRCP-P07	TRCP-P08	TRCP-P09	TRCP-P10
SYNC, 150D & ALM T/R	J7C /4	MDP-J1	MDP-J2	MDP-J3	MDP-J4	MDP-J5	MDP-J6	MDP-J7	MDP-J8	MDP-J9	MDP-J10
PTT & A/D RETURN	J8C /5	TRCP-P11	S1-J9C	S2-J9C	S3-J9C	S4-J9C	S5-J9C	S6-J9C	S7-J9C	S8-J9C	S9-J9C
PTT & A/D RETURN	J9C /6	S2-J8C	S3-J8C	S4-J8C	S5-J8C	S6-J8C	S7-J8C	S8-J8C	S9-J8C	S10-J8C	-
150D, ALM T/R CH01-04	J11	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1
SYNC	J12C	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1
TXV & RXV CH05-10	J13	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2
TXV & RXV CH11-16	J14										
TXV & RXV CH17-22	J15										
TXV & RXV CH23-24	J16										
TXD CH01-24	J1D	D602-J1	D603-J1	D604-J1	D605-J1	D606-J1	D607-J1	D608-J1	D609-J1	D610-J1	D611-J1
RXD CH01-24	J2D /6	ADX-J45	ADX-J46	ADX-J47	ADX-J48	ADX-J49	ADX-J50	ADX-J51	ADX-J52	ADX-J53	ADX-J54
TXC CH01-24	J3D	D602-J2	D603-J2	D604-J2	D605-J2	D606-J2	D607-J2	D608-J2	D609-J2	D610-J2	D611-J2
CP TIME REF	J4C /4	TCP-J11	TCP-J12	TCP-J13	TCP-J14	TCP-J15	TCP-J16	TCP-J17	TCP-J18	TCP-J19	TCP-J20
CH01 DATA	J11D	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1
CH02 DATA	J12D	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2
CH03 DATA	J13D	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3
CH04 DATA	J14D	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4
CH05 DATA	J15D	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5
CH06 DATA	J16D	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1
CH07 DATA	J17D	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2
CH08 DATA	J18D	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3
CH09 DATA	J19D	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4
CH10 DATA	J20D	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5

/1 AVX IS ANALOG VOTER X-CONNECT PANEL
/2 TRCP IS TSET RACK CONNECTOR PANEL
/3 MDP IS MULTIPLEX DISTRIBUTION PANEL
/4 TCP IS TIMING CONCENTRATOR PANEL
/5 ADX IS DIGITAL VOTER X-CONNECT PANEL

10- CHANNEL CONFIGURATION
MULTIPLEX CROSS CONNECT PANEL

(19C852600 Sh. 2 Rev. 1)

FUNCTION	MUX X-CONN		SITE 1	SITE 2	SITE 3	SITE 4	SITE 5	SITE 6	SITE 7	SITE 8	SITE 9	SITE 10
TXV CH01-24	J1	1	A600-J2	A601-J1	A601-J2	A602-J1	A602-J2	A604-J1	A604-J2	A605-J1	A605-J2	A606-J1
RXV CH01-24	J2	1	AVX-J45	AVX-J46	AVX-J47	AVX-J48	AVX-J49	AVX-J50	AVX-J51	AVX-J52	AVX-J53	AVX-J54
PTT & A/D CH01-24	J6C	4	TRCP-P01	TRCP-P02	TRCP-P03	TRCP-P04	TRCP-P05	TRCP-P06	TRCP-P07	TRCP-P08	TRCP-P09	TRCP-P10
SYNC, 150D & ALM T/R	J7C	4	MDP-J1	MDP-J2	MDP-J3	MDP-J4	MDP-J5	MDP-J6	MDP-J7	MDP-J8	MDP-J9	MDP-J10
PTT & A/D RETURN	J8C	2	TRCP-P11	S1-J9C	S2-J9C	S3-J9C	S4-J9C	S5-J9C	S6-J9C	S7-J9C	S8-J9C	S9-J9C
PTT & A/D RETURN	J9C	2	S2-J8C	S3-J8C	S4-J8C	S5-J8C	S6-J8C	S7-J8C	S8-J8C	S9-J8C	S10-J8C	-
150D, ALM T/R CH01-04	J11		MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1	MA301-M1
SYNC	J12C		MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1	MA503-TB1
TXV & RXV CH05-10	J13		MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2	MA301-M2
TXV & RXV CH11-16	J14		MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1	MA301-E1
TXV & RXV CH17-22	J15											
TXV & RXV CH23-24	J16											
TXD CH01-24	J1D		D602-J1	D603-J1	D604-J1	D605-J1	D606-J1	D607-J1	D608-J1	D609-J1	D610-J1	D611-J1
RXD CH01-24	J2D	3	ADX-J45	ADX-J46	ADX-J47	ADX-J48	ADX-J49	ADX-J50	ADX-J51	ADX-J52	ADX-J53	ADX-J54
TXC CH01-24	J3D		D602-J2	D603-J2	D604-J2	D605-J2	D606-J2	D607-J2	D608-J2	D609-J2	D610-J2	D611-J2
CP TIME REF	J4C	4	TCP-J11	TCP-J12	TCP-J13	TCP-J14	TCP-J15	TCP-J16	TCP-J17	TCP-J18	TCP-J19	TCP-J20
CH01 DATA	J11D		MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1	MA404 M1 J1
CH02 DATA	J12D		MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2	MA404 M1 J2
CH03 DATA	J13D		MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3	MA404 M1 J3
CH04 DATA	J14D		MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4	MA404 M1 J4
CH05 DATA	J15D		MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5	MA404 M1 J5
CH06 DATA	J16D		MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1	MA404 M2 J1
CH07 DATA	J17D		MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2	MA404 M2 J2
CH08 DATA	J18D		MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3	MA404 M2 J3
CH09 DATA	J19D		MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4	MA404 M2 J4
CH10 DATA	J20D		MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5	MA404 M2 J5
CH11 DATA	J21D		MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1	MA404 E1 J1
CH12 DATA	J22D		MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2	MA404 E1 J2
CH13 DATA	J23D		MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3	MA404 E1 J3
CH14 DATA	J24D		MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4	MA404 E1 J4
CH15 DATA	J25D		MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5	MA404 E1 J5
CH16 DATA	J26D											
CH17 DATA	J27D											
CH18 DATA	J28D											
CH19 DATA	J29D											
CH20 DATA	J30D											
CH21 DATA	J31D											
CH22 DATA	J32D											
CH23 DATA	J33D											
CH24 DATA	J34D											

NOTES:

1. AVX IS ANALOG VOTER X-CONNECT PANEL
2. TRCP IS TSET RACK CONNECTOR PANEL
3. MDP IS MULTIPLEX DISTRIBUTION PANEL
4. TCP IS TIMING CONCENTRATOR PANEL
5. ADX IS DIGITAL VOTER X-CONNECT PANEL

15- CHANNEL CONFIGURATION MULTIPLEX CROSS CONNECT PANEL

(19C852600 Sh. 3 Rev. 2)

MULTIPLEX DISTRIBUTION PANEL

CONNECTION CHART - CONTROL POINT

FUNCTION	M/W DISTR	2 SITE	4 SITE	10 SITE
SYNC (S01-10)	J11	D600-J2	D600-J2	D600-J2
150D (S01-10)	J13	A601-J2	A602-J2	A603-J1
ALM (S01-10)	J12	TRCP-P17	TRCP-P17	TRCP-P17

△1

NOTES:

△1. TRCP IS TEST RACK CONNECTOR PANEL

MULTIIPLEX DISTRIBUTION PANEL

(19C852600 Sh. 6 Rev. 2)

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