RHIC Accelerator Controls Section
Bldg. 1004A Rack Diagrams
BNL Drawing Numbers 94028735 to 94028744

Brookhaven National Laboratory, Upton, New York 11973

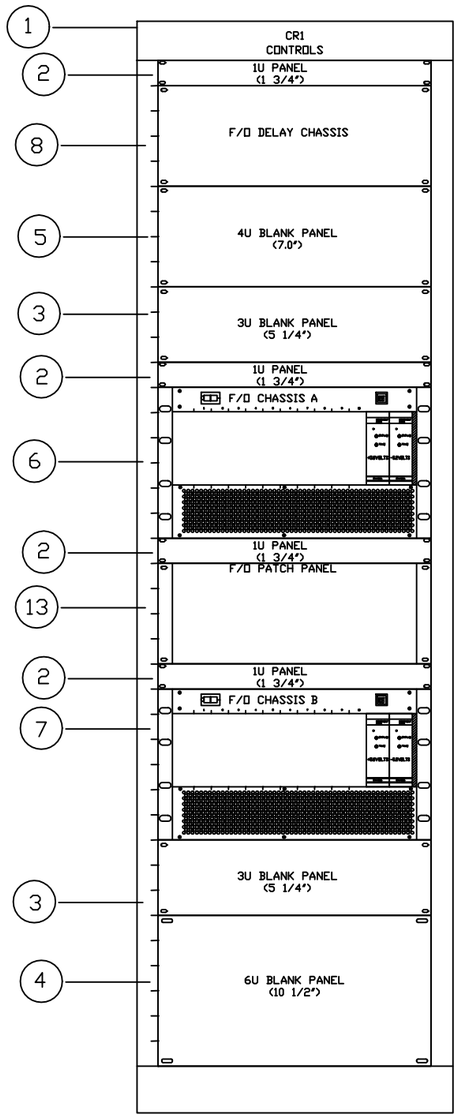
Created By: Ed Koropsak
Last Updated 6/29/01

CONTROLS RACKS
- 🕮 Rack CR1
- 🕮 Rack CR2
- 🕮 Rack RF ACDIPOLE

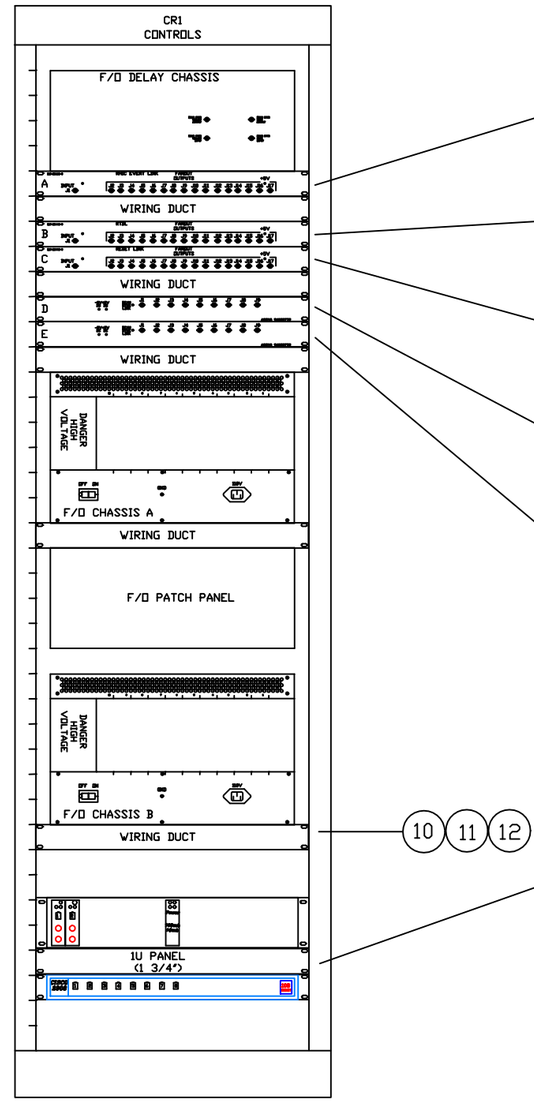
RF GROUP's CHASSIS
- 🕮 CHASSIS CFE-4A-RFB1
- 🕮 CHASSIS CFE-4A-RFB2
- 🕮 CHASSIS CFE-4A-RFB3
- 🕮 CHASSIS CFE-4A-RFY1
- 🕮 CHASSIS CFE-4A-RFY2
- 🕮 CHASSIS CFE-4A-RFY3

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

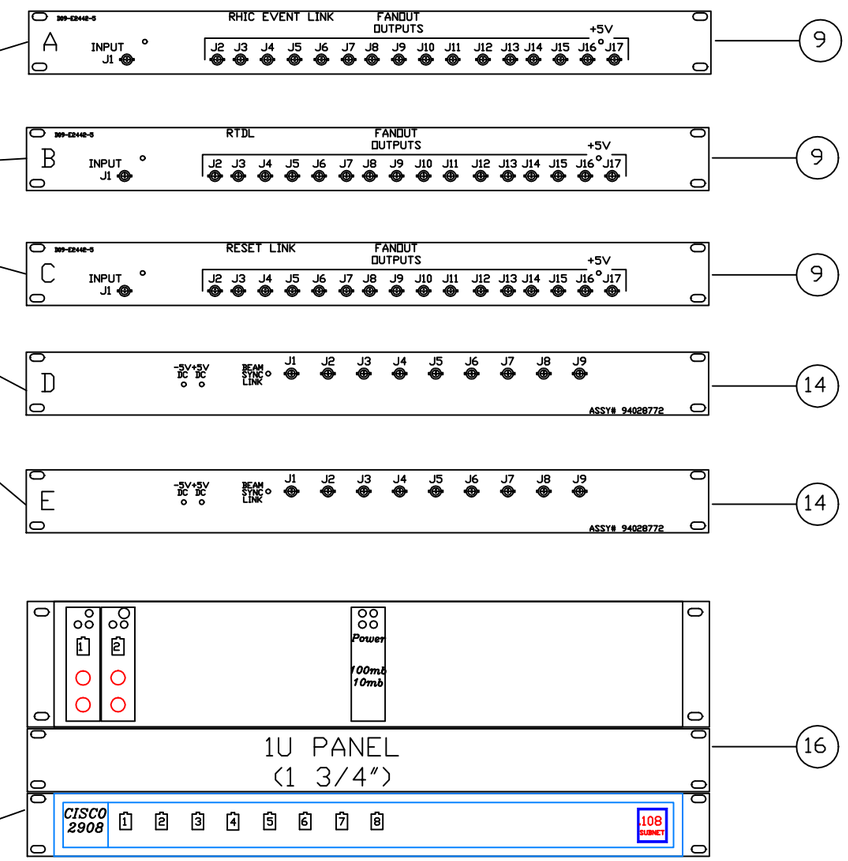
ACS, BNL 8/23/99 4:07 PM8735.dwg



FRONT VIEW



REAR VIEW



QTY REQD -3	QTY REQD -2	QTY REQD -1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		1	N/A	16	ETHERNET REPEATER	X
		AR	PANELS	15	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		2	D,E	14	FANOUT ASSEMBLY (ECL)	94028772
		1	NA	13	FIBER OPTIC PATCH PANEL (FONS RIC 72P)	X
		10	NA	12	WIRING DUCT SPRING CLIPS 1.5"W (PANDUIT S1.5-C)	X
		5	NA	11	WIRING DUCT COVER 1.5"w (PANDUIT C1.5LG6)	X
		5	NA	10	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		3	A,B,C	9	FANOUT ASSEMBLY	DD9-E2442
		1	NA	8	FIBER OPTIC DELAY CHASSIS ASSY.	94028277
		1	NA	7	F/O CHASSIS B	94028721
		1	NA	6	F/O CHASSIS A	94028720
		1	NA	5	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		1	NA	4	6U x 19" BLANK PANEL (PREMIER METAL ARP-1019-553)	X
		2	NA	3	3U x 19" BLANK PANEL (PREMIER METAL ARP-519-553)	X
		4	NA	2	1U x 19" BLANK PANEL (PREMIER METAL ARP-119-553)	X
		1	NA	1	19" RACK, 70" H RACK SPACE	X

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

OUTSTANDING ECN

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

SERVICE BLDG. 1004A

RACK CR1 ASSEMBLY

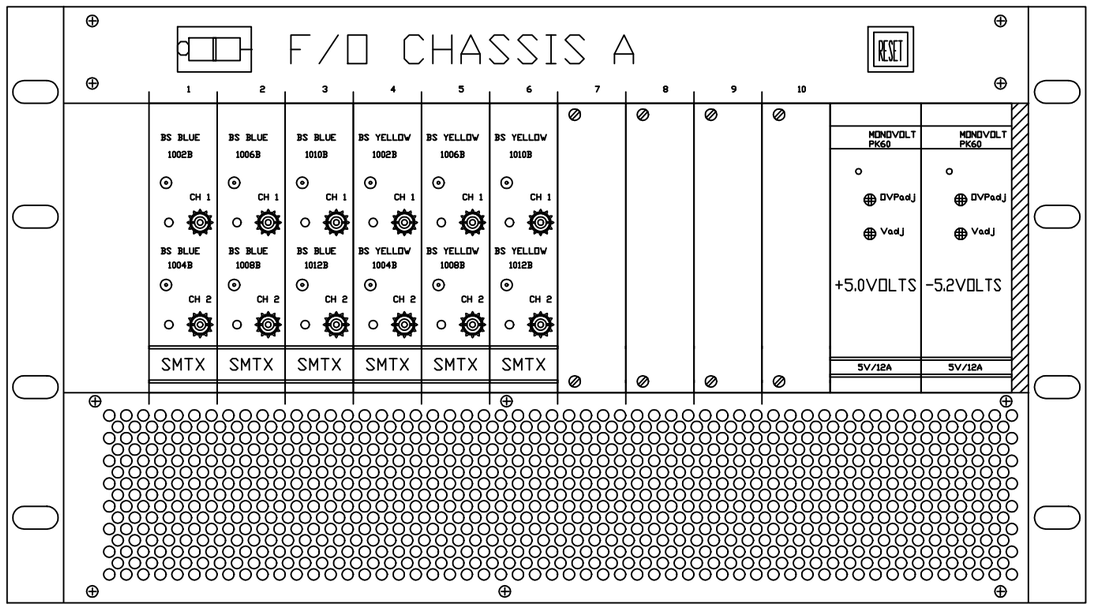
SIZE D | DRAWING NUMBER 94028735 | REV. A

MATERIAL: ——— | SCALE: NA | WEIGHT: – | SHEET 1 OF 1

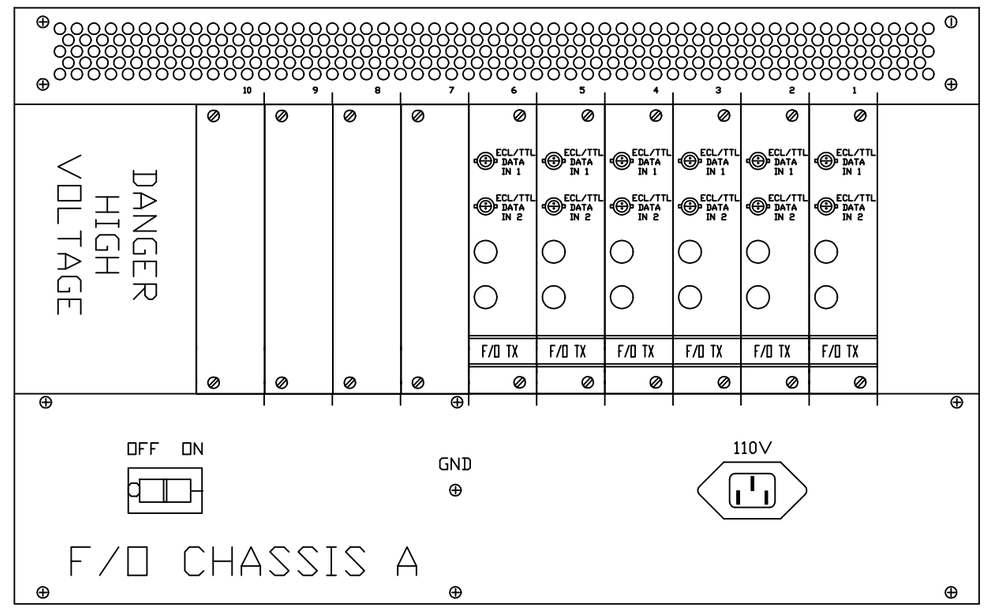
1 *AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 8/23/99 4:10 PM 8736.dwg



FRONT VIEW



REAR VIEW

QTY REQD -3	QTY REQD -2	QTY REQD -1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.BNL NO.
		8	ALL UNUSED	4	3U x 6HP BLANK PANEL (ELECTRO SPACE ESFE-3032)	X
		6	SLOT 1-6	3	3U FIBER OPTIC TRANSMITTER TRANSISTION MODULE, ECL	DD9-E2541-3
		6	SLOT 1-6	2	3U FIBER OPTIC TRANSMITTER MODULE, SINGLEMODE	94028103
		1	NA	1	3U FIBER OPTIC CHASSIS	94028261

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

NA FINISH — BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

BLDG 1004A RACK CR1

F/O CHASSIS A ASSY.

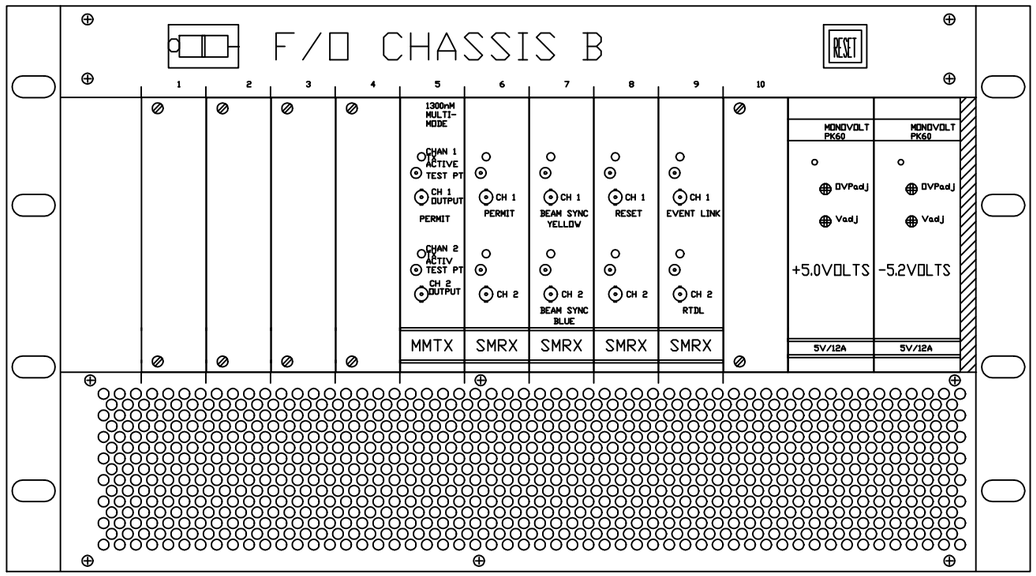
SIZE D — DRAWING NUMBER 94028736 — REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

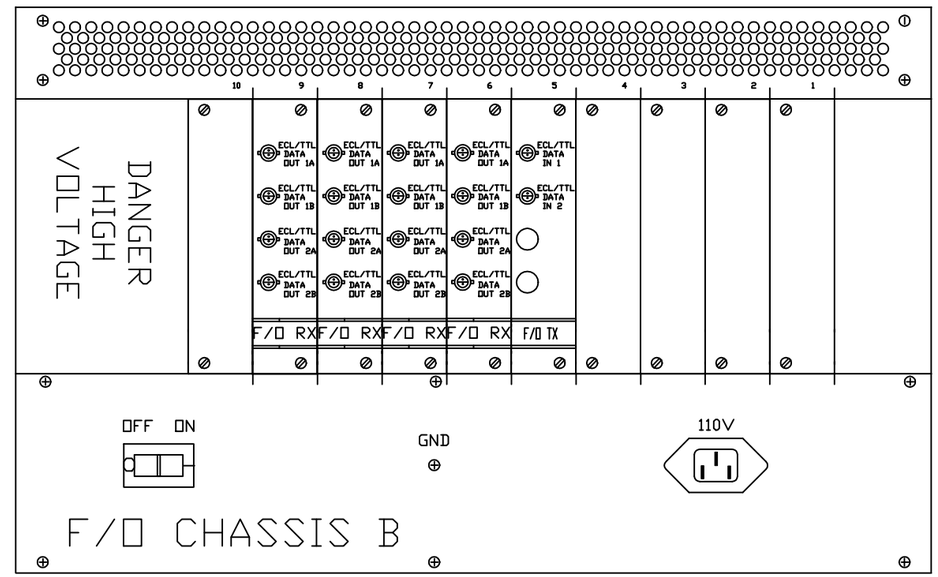
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 8/23/99 4:12 PM 8737.dwg



FRONT VIEW



REAR VIEW

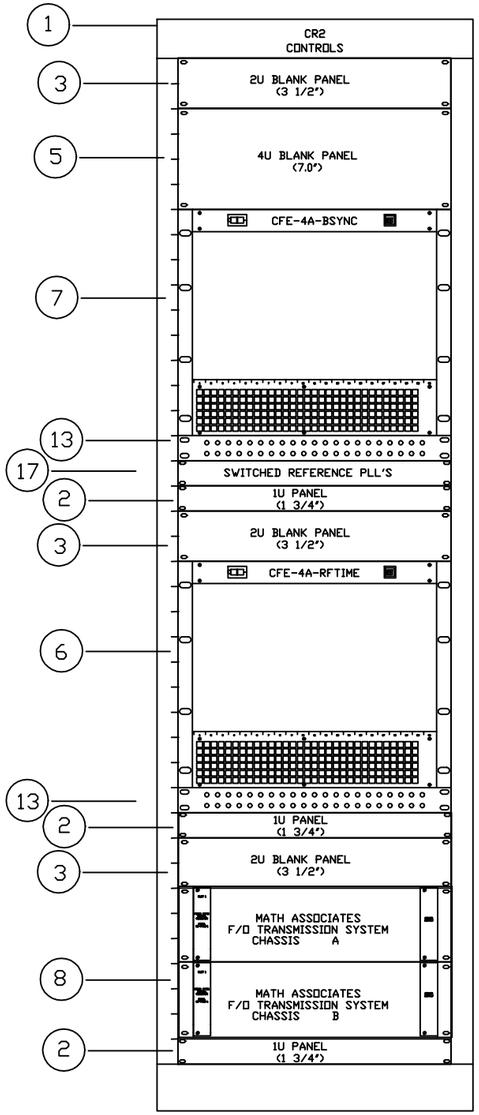
	1	SLOT 7	7	3U FIBER OPTIC RECEIVER TRANSITION MODULE, ECL	D09-E2541-3
	10	ALL UNUSED	6	3U x 6HP BLANK PANEL (ELECTRO-SPACE ESFE-3032)	X
	3	SLOT 6,8,9	5	3U FIBER OPTIC RECEIVER TRANSITION MODULE, TTL	D09-E2542-3
	4	SLOT 6,7,8,9	4	3U FIBER OPTIC RECEIVER MODULE, MULTIMODE/SINGLEMODE	94028101
	1	SLOT 5	3	3U FIBER OPTIC TRANSMITTER TRANSITION MODULE, TTL	D09-E2495-3
	1	SLOT 5	2	3U FIBER OPTIC TRANSMITTER MODULE, MULTIMODE	94028168
	1	N/A	1	3U FIBER OPTIC CHASSIS	94028261
-3 -2 -1 QTY REQD		REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989	Q.A. CATEGORY A-3	DATE	BROOKHAVEN NATIONAL LABORATORY	
	DRAWN BY Ed Koropsak	4/9/98	UPTON, N.Y. 11973	
UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES	CHECKED BY		RHIC CONTROLS	
DECIMAL TOLERANCES .X ±.030 .XX ±.015 .XXX ±.005 ANGULAR TOLERANCE ± .5°	DESIGN APPROVAL		BLDG. 1004A RACK CR1	
	ENGINEER APPROVAL R. MICHNOFF	4/9/98	F/O CHASSIS B ASSY.	
	SUPVR. APPROVAL		SIZE D	94028737 REV. A
NA FINISH	BREAK SHARP EDGES MAX. XX MIN. XX	NEXT ASSEMBLY	DRAWING NUMBER	
OUTSTANDING ECN			MATERIAL: ——— SCALE: NA WEIGHT: –	SHEET 1 OF 1

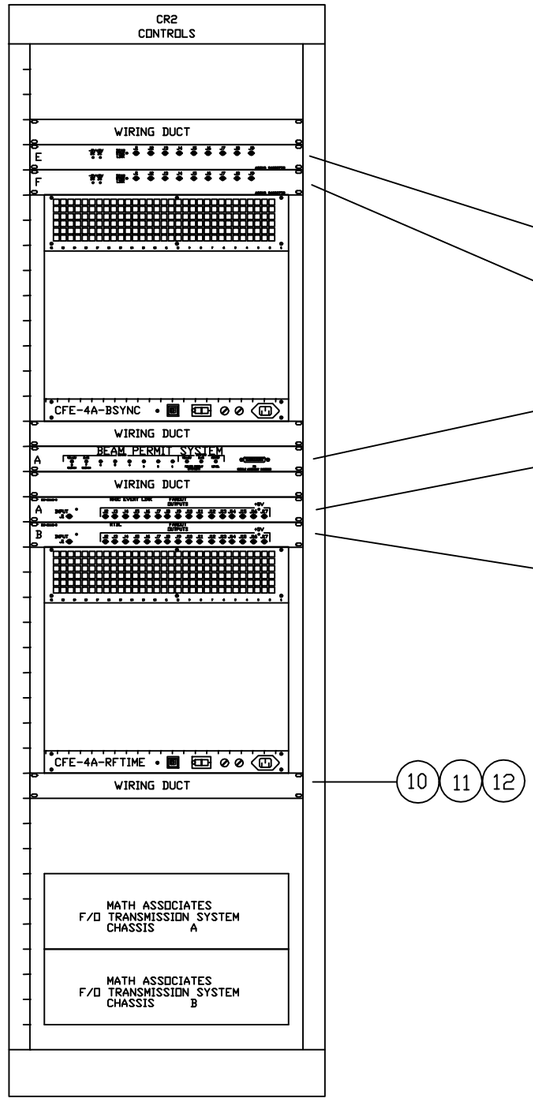
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

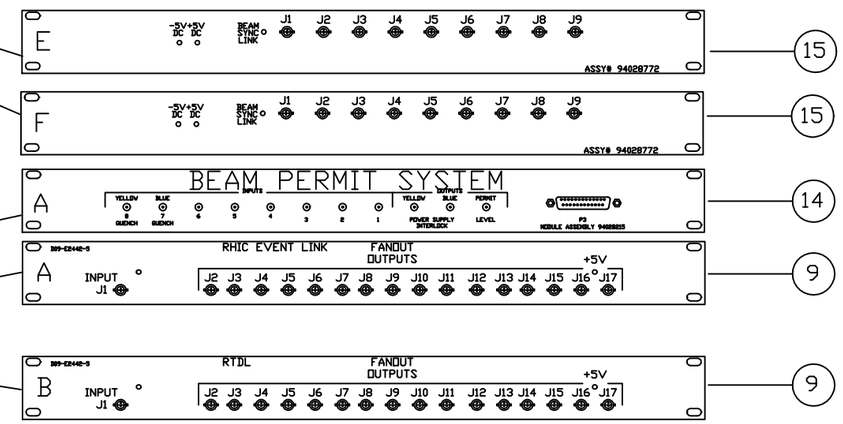
ACS, BNL 9/12/00 8:39 AM 8738.dwg



FRONT VIEW



REAR VIEW



-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		2	NA	17	SWITCHED REFERENCE PLL's	94028804
		AR	PANELS	16	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		2	E,F	15	BEAM SYNC FANOUT ASSEMBLY	94028772
		1	NA	14	BEAM PERMIT SYSTEM INTERFACE PANEL	94028215
		2	NA	13	GROMMET PANEL	94028410
		8	NA	12	WIRING DUCT SPRING CLIPS 1.5"W (PANDUIT S1.5-C)	X
		4	NA	11	WIRING DUCT COVER 1.5"w (PANDUIT C1.5LG6)	X
		4	NA	10	WIRING DUCT 1.5"W x 4"D (PANDUIT E1.5X4LG6)	X
		2	A,B	9	FANOUT ASSEMBLY	DD9-E2442
		2	A,B	8	FIBER OPTIC TRANSMISSION SYSTEM (MATH ASSOCIATES)	X
		1	NA	7	VME CHASSIS CFE-4A-BSYNC	94028739
		1	NA	6	VME CHASSIS CFE-4A-RFTIME	94028740
		1	NA	5	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		-	NA	4	6U x 19" BLANK PANEL (PREMIER METAL ARP-1019-553)	X
		2	NA	3	2U x 19" BLANK PANEL (PREMIER METAL ARP-319-553)	X
		3	NA	2	1U x 19" BLANK PANEL (PREMIER METAL ARP-119-553)	X
		1	NA	1	19" RACK, 70" H RACK SPACE	X
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH — BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

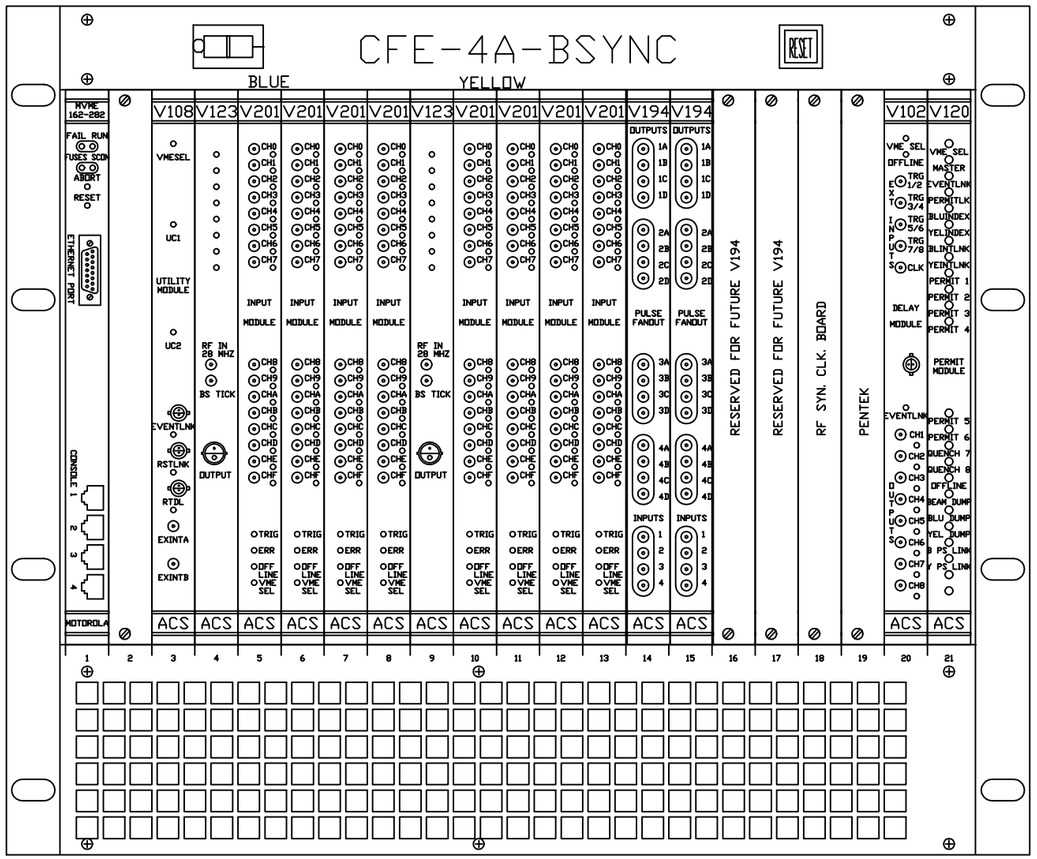
BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
SERVICE BLDG. 1004A
RACK CR2 ASSEMBLY

SIZE D — DRAWING NUMBER 94028738 — REV. A

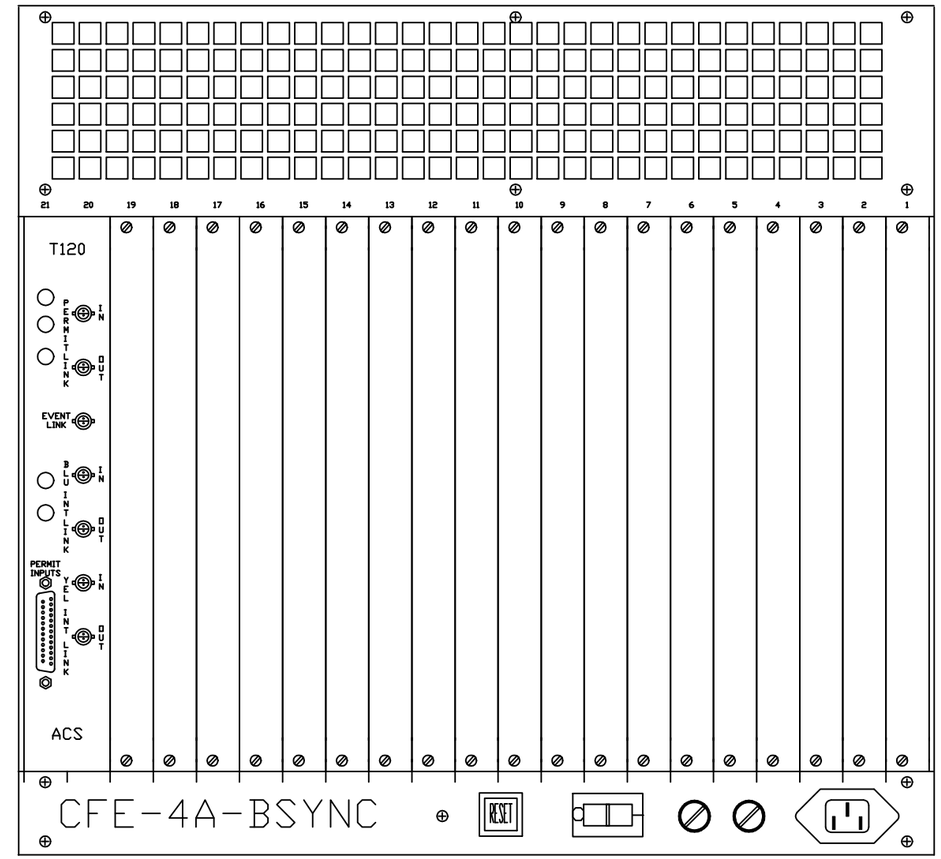
MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.
ACS, BNL			9/12/00 8:45 AM		8739.dwg	



FRONT VIEW



REAR VIEW

NOTE: THIS IS A SPECIAL CHASSIS.
SLOTS 4 TO 13 HAVE A BACKPLANE ATTACHED
AND NO OTHER TYPES OF BOARDS SHOULD BE
USED IN THESE SLOTS.

HARDWARE DAMAGE MAY RESULT!!!!!

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L DWG NO.,BNL NO.
		1	SLOT 20	12	V102 DELAY MODULE	94028072
		1	SLOT 19	11	PENTEK	X
		8	5-8, 10-13	10	V201 BEAM SYNC INPUT MODULE	94028639
		2	SLOT 4,9	9	V123 Beam Synchronous Encoder Module	94028036
		19	SEE NOTE 1	8	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		2	SLOT 14,15	7	V194 PULSE FANOUT MODULE	94028196
		1	SLOT 20,21	6	T120 PERMIT SYSTEM TRANSITION MODULE	94028199-2
		1	SLOT 21	5	V120 PERMIT SYSTEM MODULE	94028077
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		-		3		
		1	SLOT 1	2	FRONT END COMPUTER	MVME 162-282
		1	N/A	1	VME CHASSIS	RHIC-93008000
QTY REQD						

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
BLDG. 1004A RACK CR2
VME CHASSIS CFE-4A-BSYNC

SIZE D | DRAWING NUMBER 94028739 | REV. A

MATERIAL: ——— | SCALE: NA | WEIGHT: – | SHEET 1 OF 1

*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

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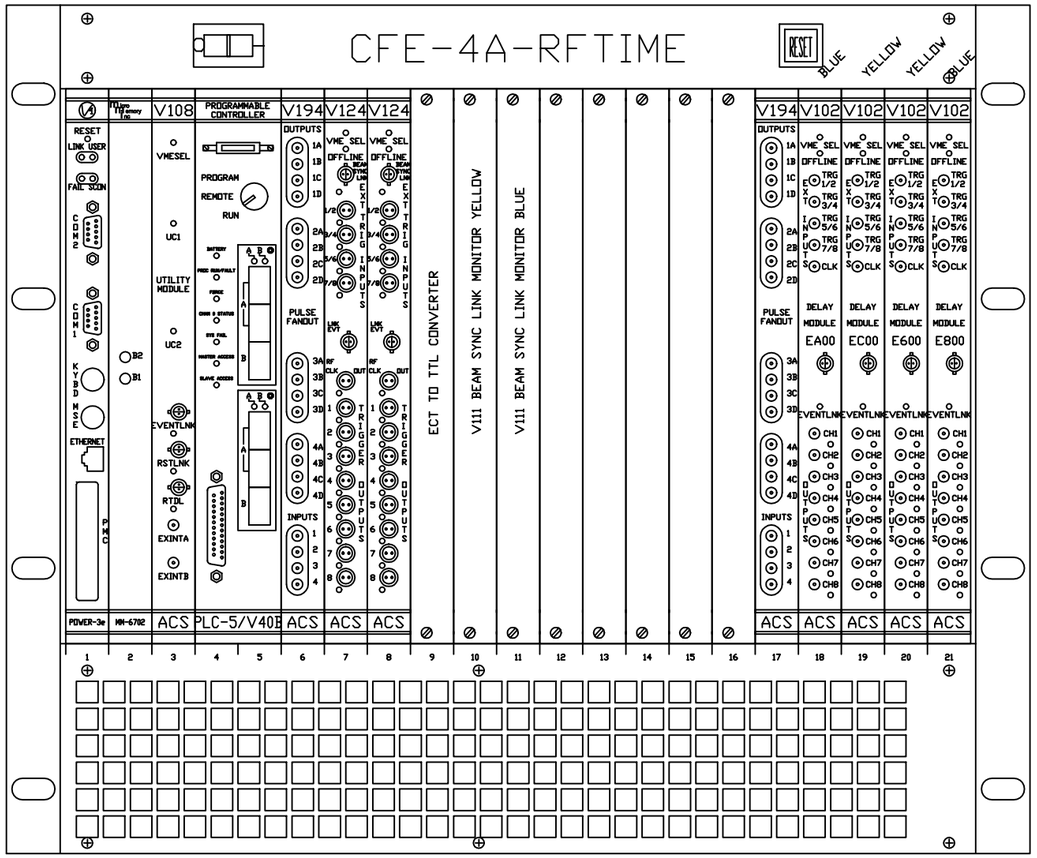
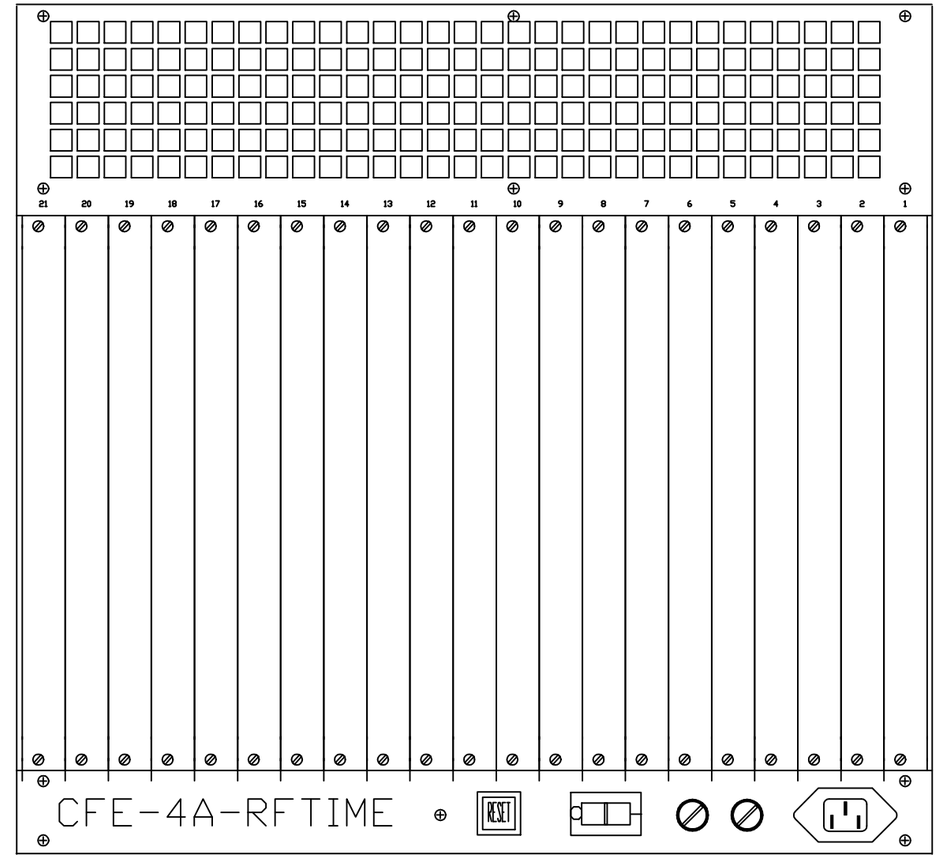


FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,SPEC. NO.
		1	SLOT 9	11	ECL TO TTL CONVERTER	?
		30	SEE NOTE 1	10	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		4	SLOT 18-21	9	V102 DELAY MODULE	94028072
		2	SLOT 10,11	8	V111 BEAM SYNC LINK MONITOR MODULE	XX
		2	SLOT 7,8	7	V124	94028430
		2	SLOT 6,17	6	V194 PULSE FANOUT MODULE	94028196
		1	SLOT 4-5	5	AB CONTROLLER	PLC-5/V40B
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

BLDG. 1004A RACK CR2

VME CHASSIS CFE-4A-RFTIME

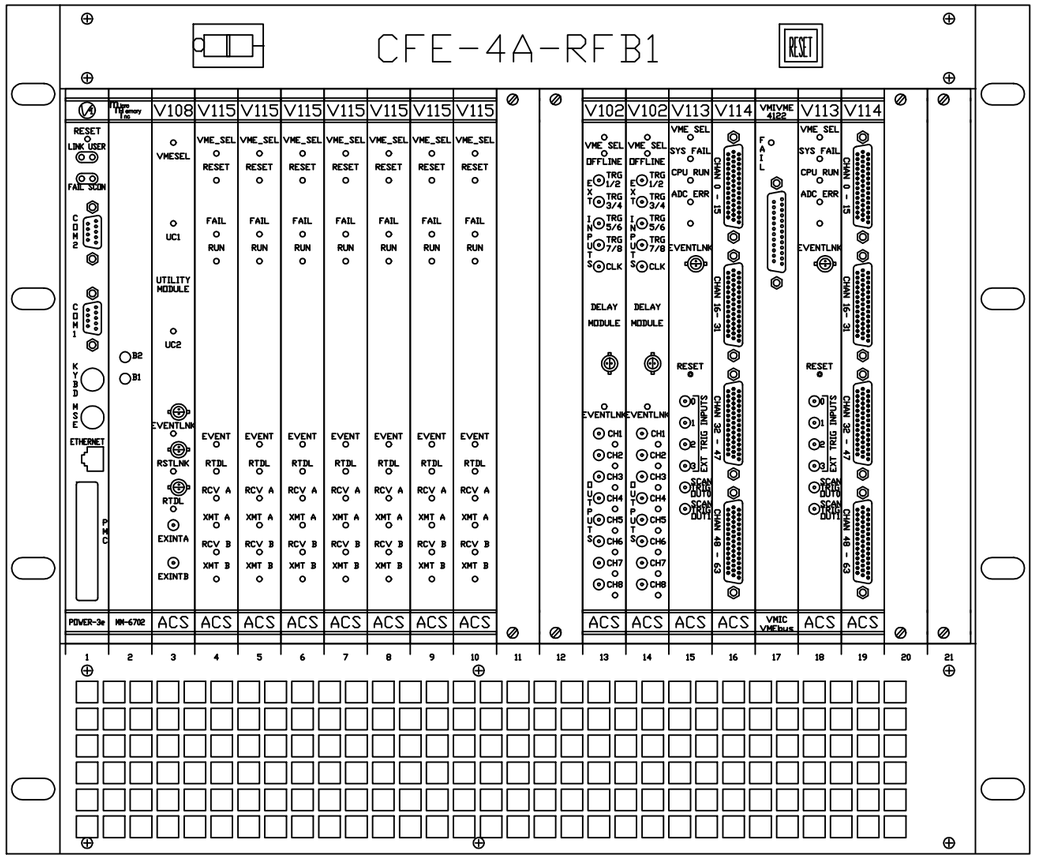
SIZE D — DRAWING NUMBER 94028740 — REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

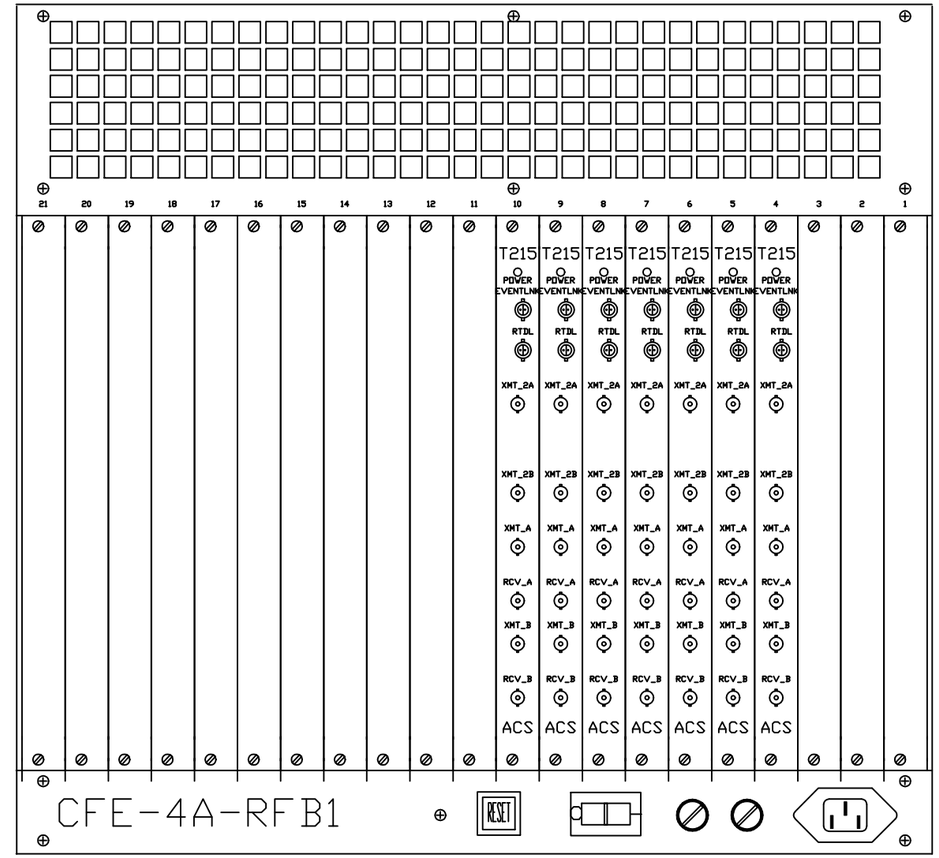
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

BNL, BNL 5/10/00 9:42 AM 8741.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,BNL NO.
		1	SLOT 17	11	VMIVME 4122	
		19	SEE NOTE 1	10	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		2	SLOT 16,19	9	V114 MADC A/D CONVERTER MODULE	94028226
		2	SLOT 15,18	8	V113 MADC COTROLLER MODULE	94028094
		2	SLOT 13,14	7	V102 DELAY MODULE	94028072
		7	SLOT 4,10	6	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		7	SLOT 4,10	5	V115 WAVEFORM GENERATOR MODULE	94028108
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

BLDG. 1004A RACK R4ACT9

VME CHASSIS CFE-4A-RFB1

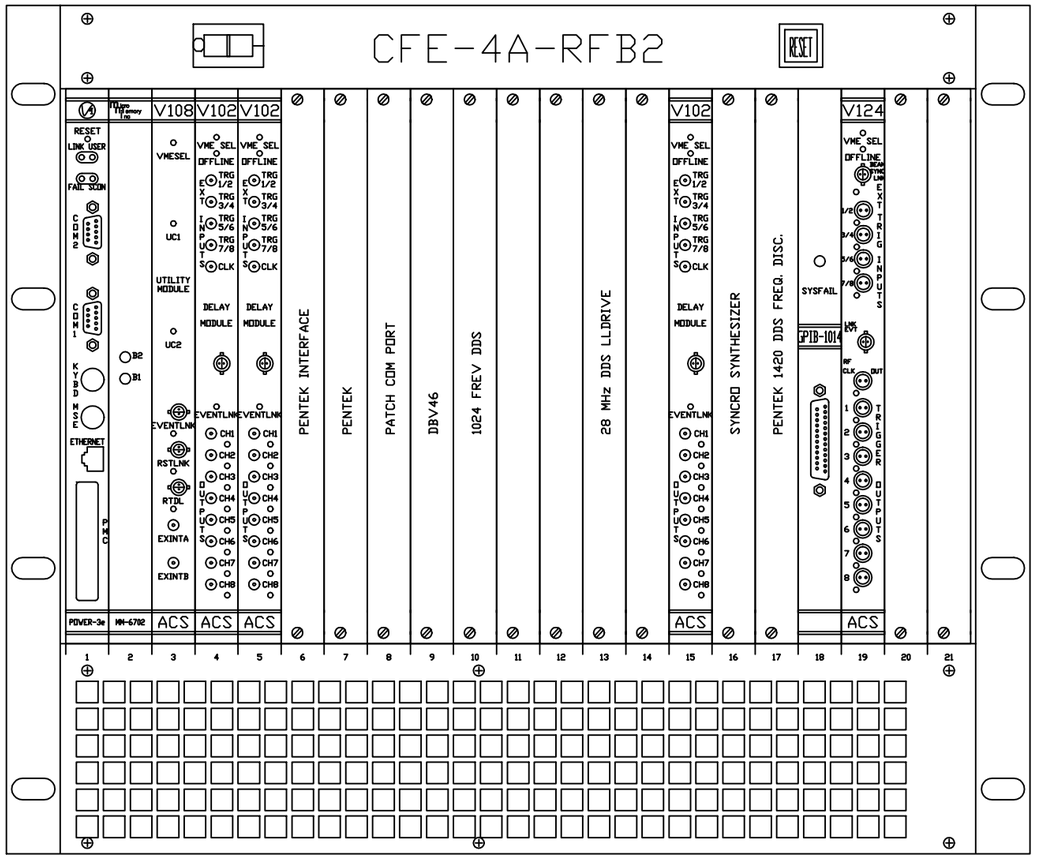
SIZE D | DRAWING NUMBER 94028741 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

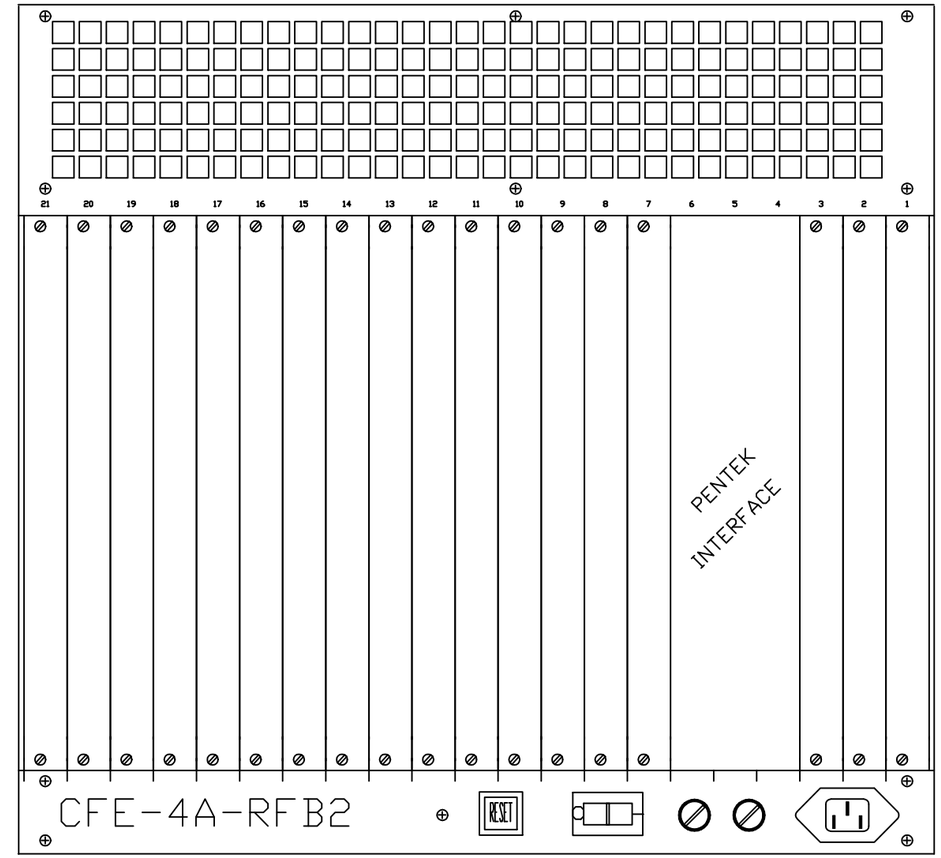
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 8/25/99 1:36 PM 8742.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,SPEC. NO.
		1	SLOT 4-6	16	PENTEK INTERFACE TRANSITION MODULE	X
		1	SLOT 19	15	V124 BEAM SYNC TRIGGER MODULE	94028xxx
		1	SLOT 17	14	GPIB 1014D	X
		1	SLOT 16	13	SYNCRO SYNTHESIZER	X
		1	SLOT 13	12	28 MHz DDS LL DRIVE	X
		1	SLOT 10	11	1024 FREQ DDS	X
		1	SLOT 9	10	DBV46	X
		19	SEE NOTE 1	9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		1	SLOT 8	8	PATCH/COM PORT	X
		1	SLOT 7	7	PENTEK BOARD	X
		1	SLOT 6	6	PENTEK INTERFACE	X
		3	SLOT 4,5,15	5	V102 DELAY MODULES	94028072
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
BLDG. 1004A RACK R4ACT18
VME CHASSIS CFE-4A-RFB2

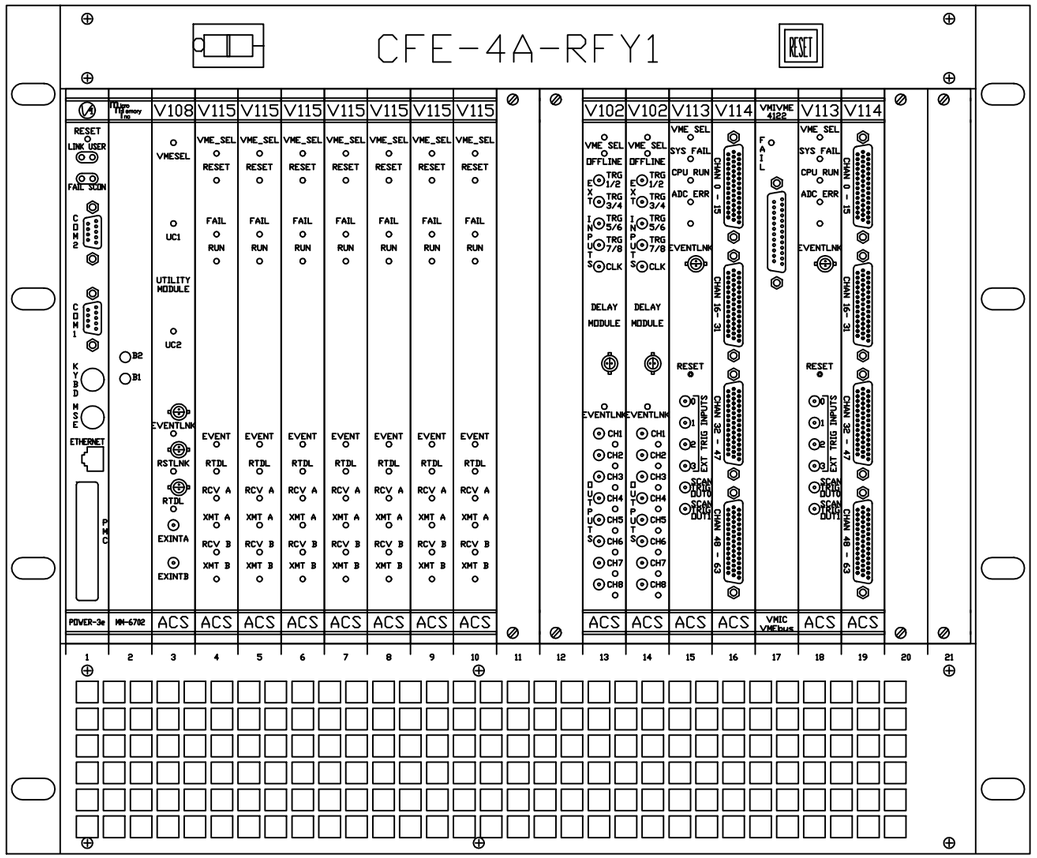
SIZE D | DRAWING NUMBER 94028742 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

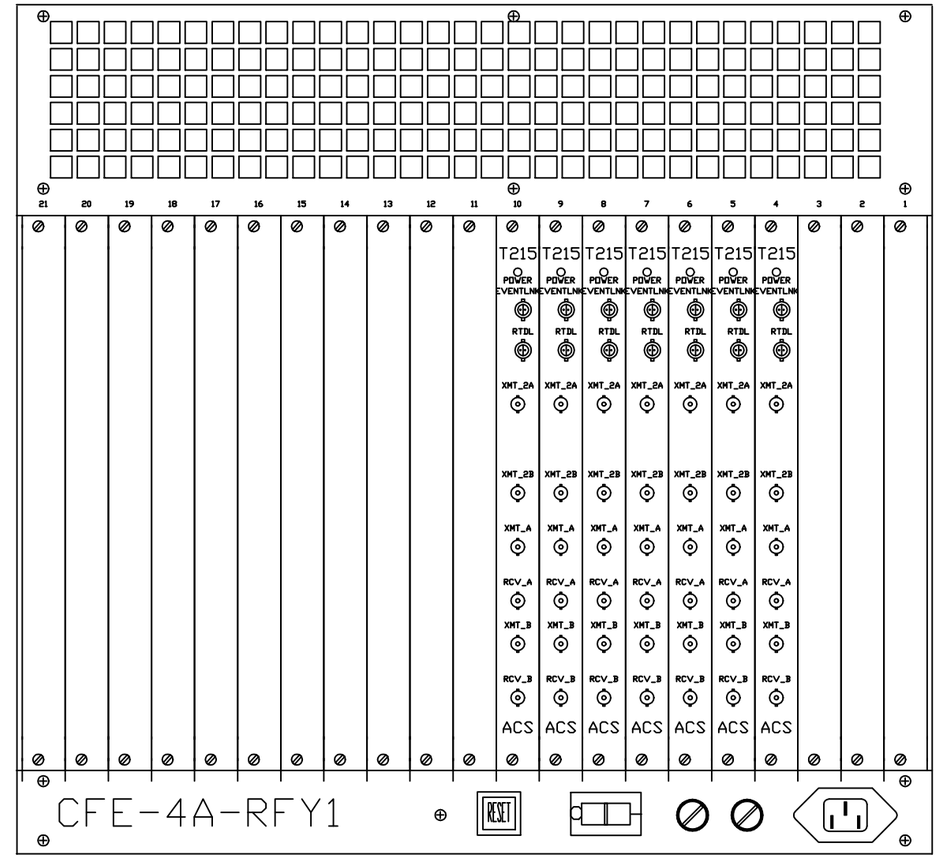
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

BNL, BNL 5/10/00 9:46 AM 8743.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,BNL NO.
		1	SLOT 17	11	VMIVME 4122	X
		19	SEE NOTE 1	10	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		2	SLOT 16,19	9	V114 MADC A/D CONVERTER MODULE	94028226
		2	SLOT 15,18	8	V113 MADC COTROLLER MODULE	94028094
		2	SLOT 13,14	7	V102 DELAY MODULE	94028072
		7	SLOT 4,10	6	T215 WAVEFORM GENERATOR TRANSITION MODULE	94028441-2
		7	SLOT 4,10	5	V115 WAVEFORM GENERATOR MODULE	94028108
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		
NEXT ASSEMBLY		

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
BLDG. 1004A RACK R4ACT5
VME CHASSIS CFE-4A-RFY1

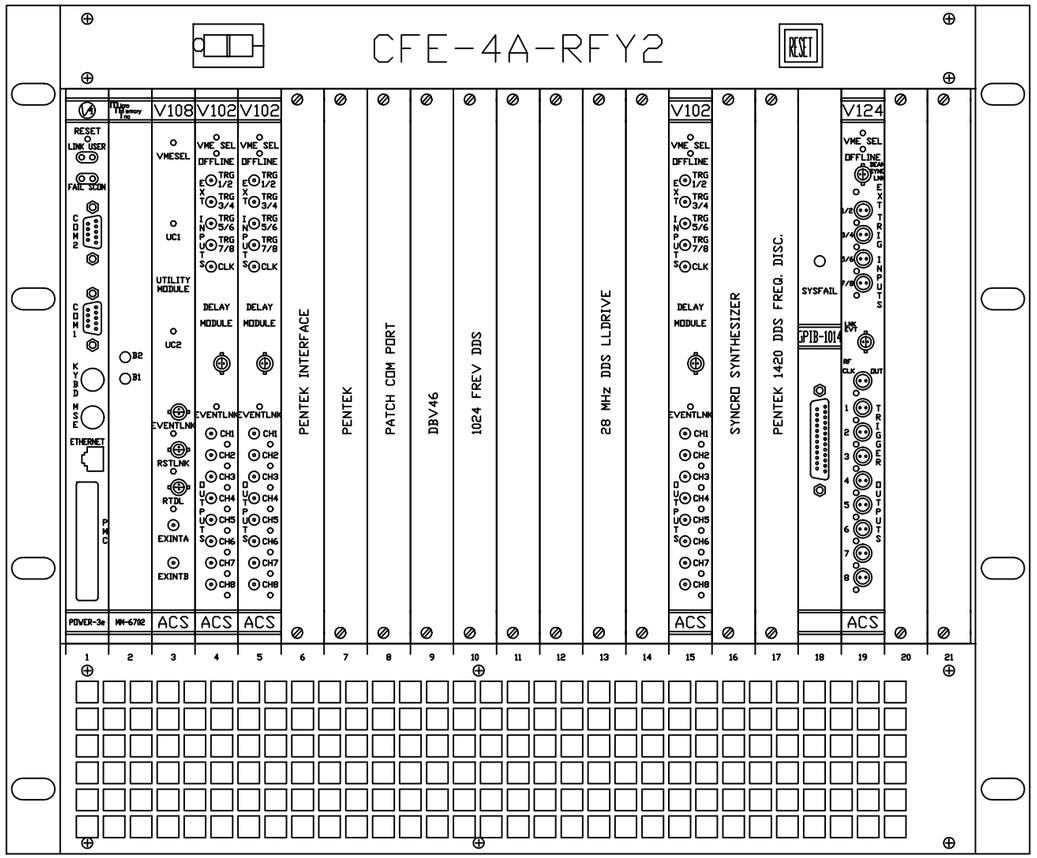
SIZE D | DRAWING NUMBER 94028743 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

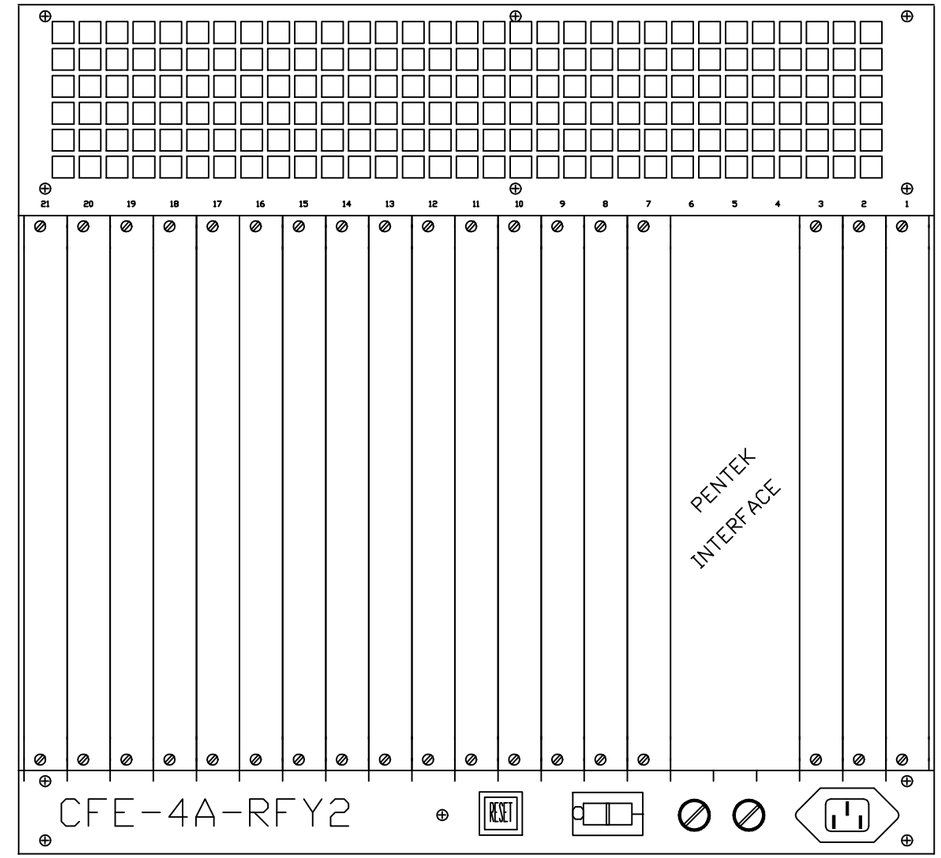
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

ACS, BNL 8/25/99 1:41 PM 8744.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	QTY REQD	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,BNL NO.
		1		SLOT 4-6	16	PENTEK INTERFACE TRANSITION MODULE	X
		1		SLOT 19	15	V124 BEAM SYNC TRIGGER MODULE	94028xxx
		1		SLOT 17	14	GPIB 1014D	X
		1		SLOT 16	13	SYNCRO SYNTHESIZER	X
		1		SLOT 13	12	28 MHz DDS LL DRIVE	X
		1		SLOT 10	11	1024 FREQ DDS	X
		1		SLOT 9	10	DBV46	X
		19		SEE NOTE 1	9	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
		1		SLOT 8	8	PATCH/COM PORT	X
		1		SLOT 7	7	PENTEK BOARD	X
		1		SLOT 6	6	PENTEK INTERFACE	X
		3		SLOT 4,5,15	5	V102 DELAY MODULES	94028072
		1		SLOT 3	4	V108 UTILITY MODULE	94028094
		1		SLOT 2	3	MEMORY BOARD	MM-6702
		1		SLOT 1	2	FRONT END COMPUTER	POWER3E
		1		N/A	1	VME CHASSIS	RHIC-93008000

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE
DRAWN BY	Ed Koropsak	4/9/98
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	4/9/98
SUPVR. APPROVAL		
NEXT ASSEMBLY		

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973
RHIC CONTROLS
BLDG. 1004A RACK R4ACT22
VME CHASSIS CFE-4A-RFY2

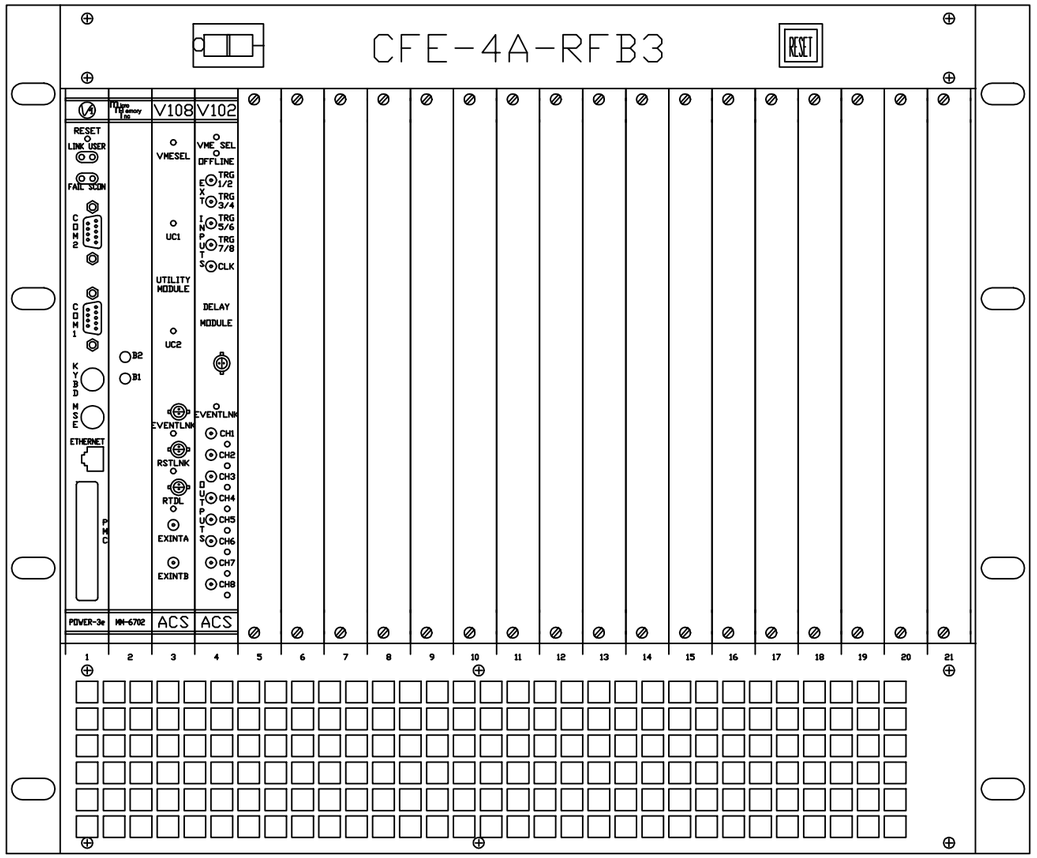
SIZE D | DRAWING NUMBER 94028744 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

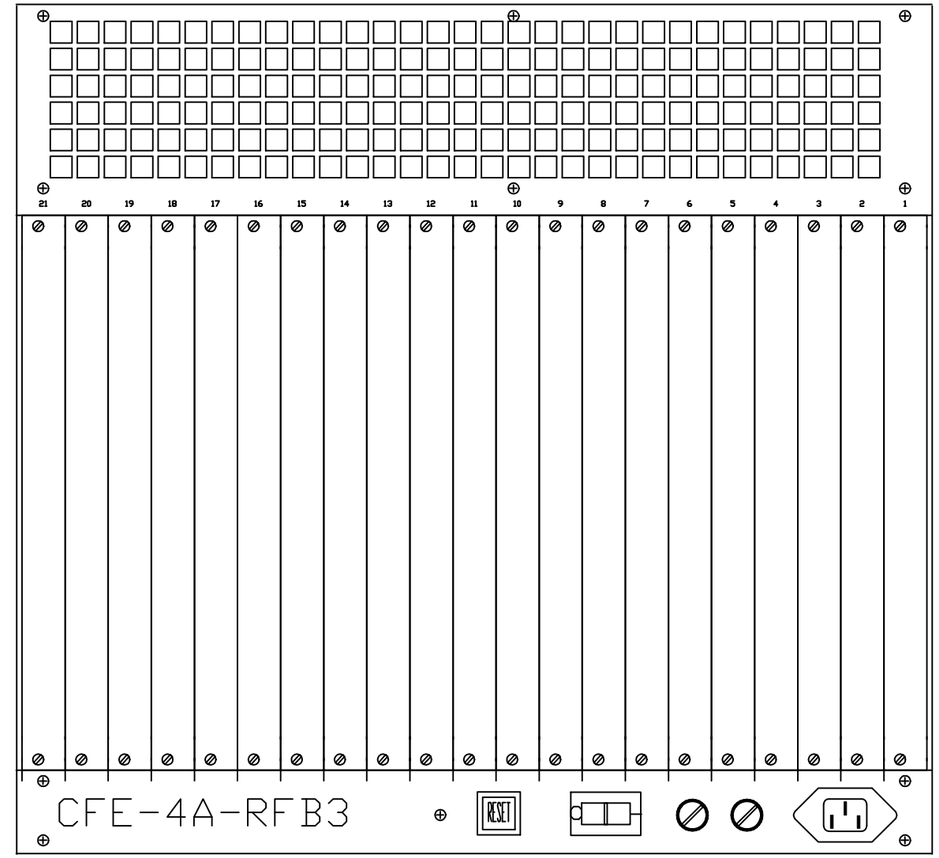
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls 10/4/99 11:39 AM 8746.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,SHL NO.
		-	-	-	-	-
		-	-	-	-	-
		1	SLOT 4	5	V102 DELAY MODULES	94028072
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

DRAWN BY	Venegas	10/4/99
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

BLDG. 1004A RACK R4ACT17

VME CHASSIS CFE-4A-RFB3

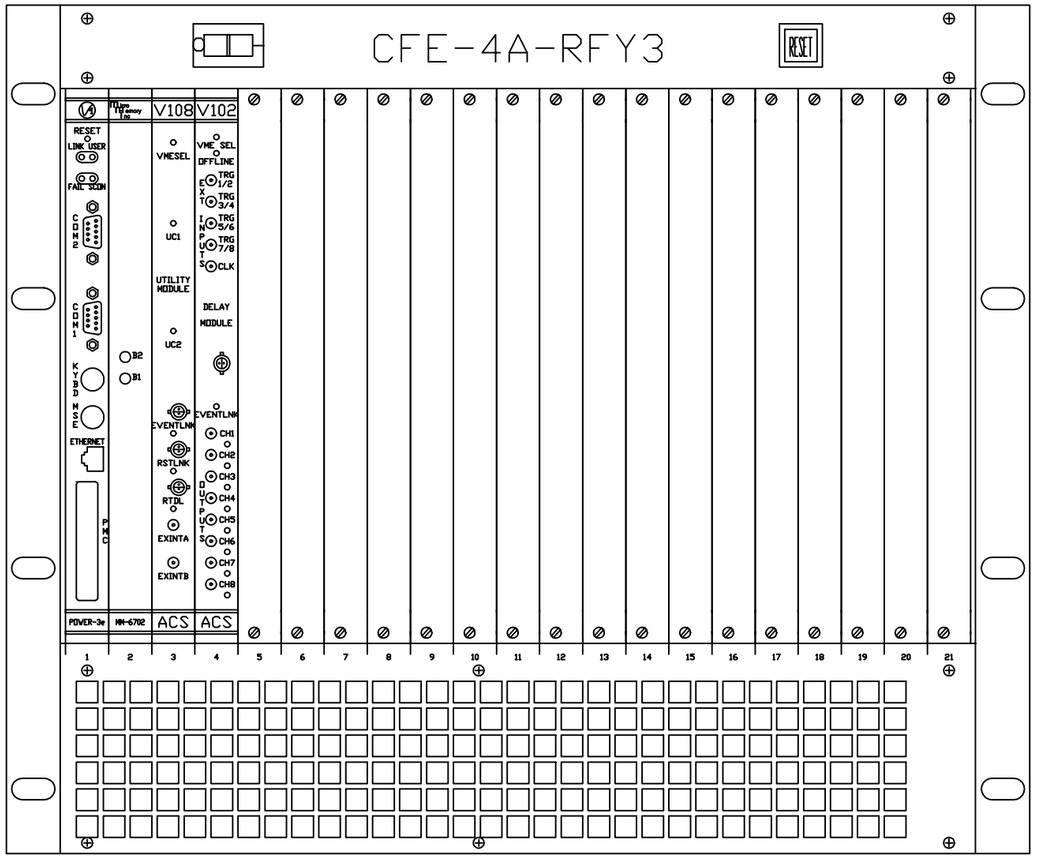
SIZE D | DRAWING NUMBER 94028746 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

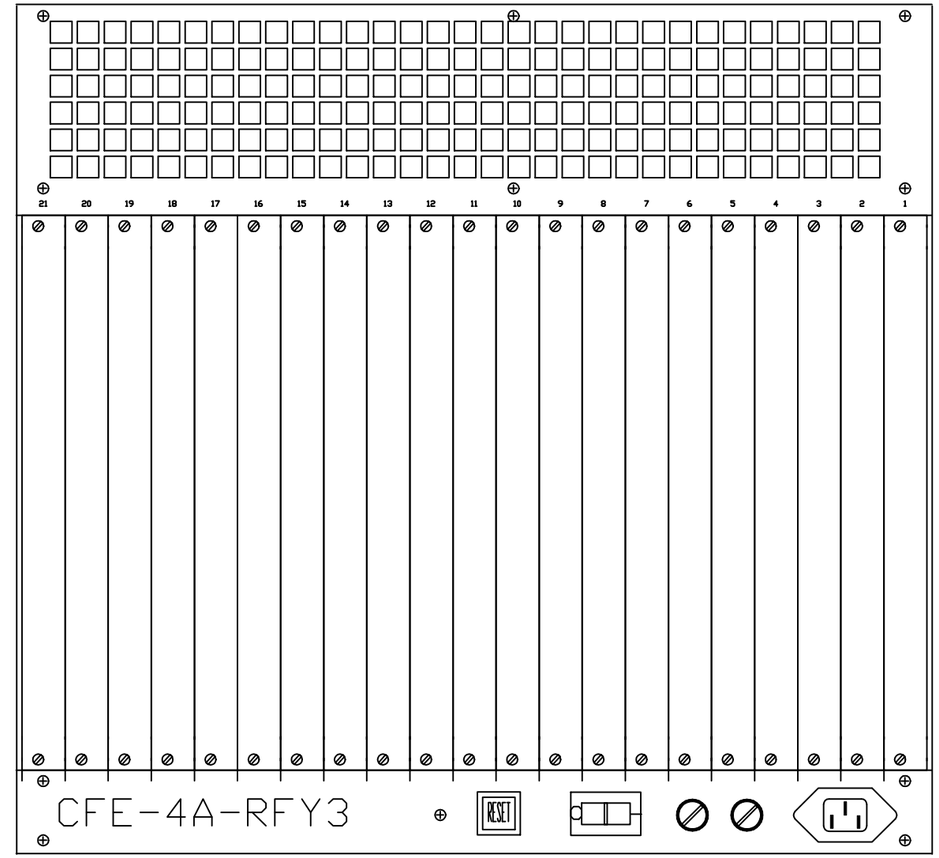
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

Controls 10/4/99 11:52 AM 8747.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,SHL NO.
		-	-	-	-	-
		-	-	-	-	-
		1	SLOT 4	5	V102 DELAY MODULES	94028072
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	POWER3E
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

DRAWN BY	Venegas	10/4/99
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL		
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

BLDG. 1004A RACK R4ACT23

VME CHASSIS CFE-4A-RFY3

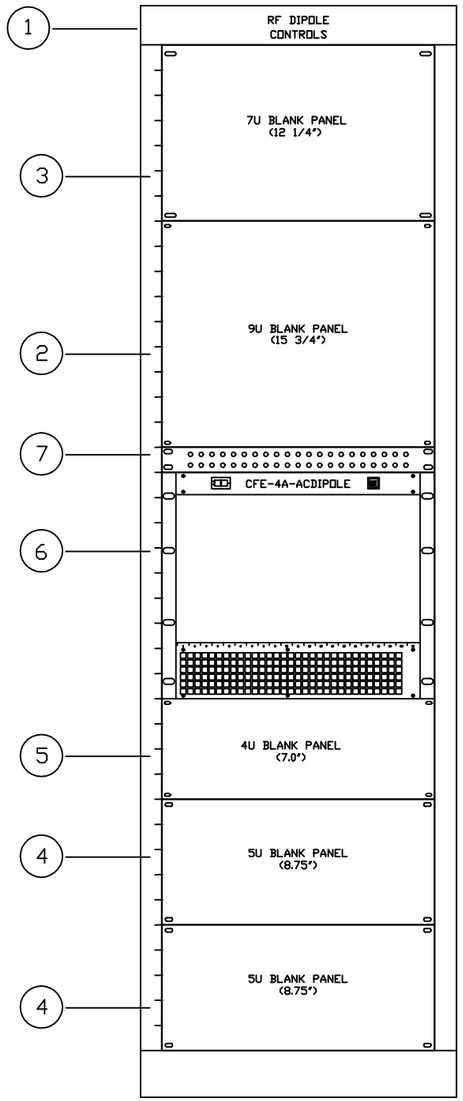
SIZE D | DRAWING NUMBER 94028747 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

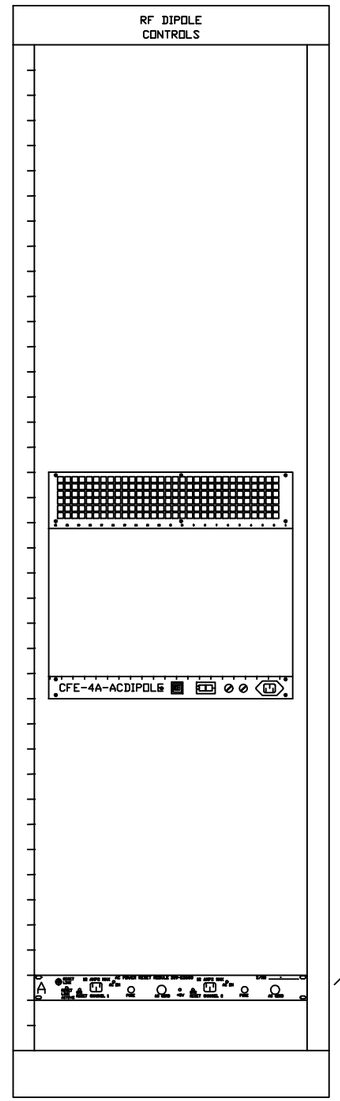
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

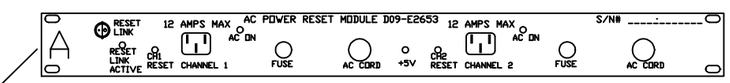
C-A, BNL 6/29/01 4:00 PM 8827.dwg



FRONT VIEW



REAR VIEW



QTY REQD -3	QTY REQD -2	QTY REQD -1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,BNL NO.
		1	A	9	AC POWER RESET MODULE	D09-E2653
		AR	PANELS	8	10-32 x 1/2" BINDING HEAD MACHINE SCREWS	T-32276
		1	NA	7	GROMMET PANEL	94028410
		1	NA	6	VME CHASSIS CFE-4A-ACDIPOLE	94028828
		1	NA	5	4U x 19" BLANK PANEL (PREMIER METAL ARP-719-553)	X
		2	NA	4	5U x 19" BLANK PANEL (PREMIER METAL ARP-819-553)	X
		1	NA	3	7U x 19" BLANK PANEL (PREMIER METAL ARP-1119-553)	X
		1	NA	2	9U x 19" BLANK PANEL (PREMIER METAL ARP-1519-553)	X
		1	NA	1	19" RACK, 70" H RACK SPACE	X

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE ± .5°

NA FINISH

BREAK SHARP EDGES MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3

		DATE
DRAWN BY	Ed Koropsak	6/14/01
CHECKED BY		
DESIGN APPROVAL		
ENGINEER APPROVAL	R. MICHNOFF	6/14/01
SUPVR. APPROVAL		

NEXT ASSEMBLY

BROOKHAVEN NATIONAL LABORATORY
UPTON, N.Y. 11973

RHIC CONTROLS

SERVICE BLDG. 1004A

RACK R?? ASSEMBLY

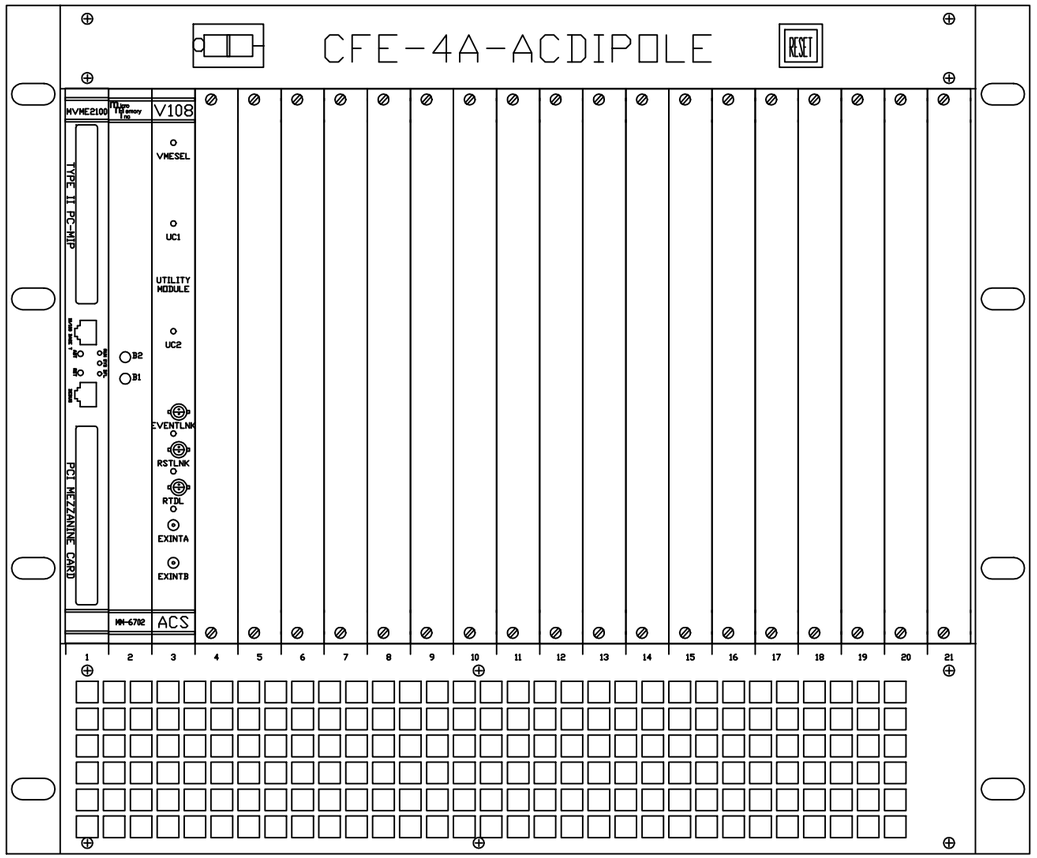
SIZE D | DRAWING NUMBER 94028827 | REV. A

MATERIAL: ——— SCALE: NA WEIGHT: – SHEET 1 OF 1

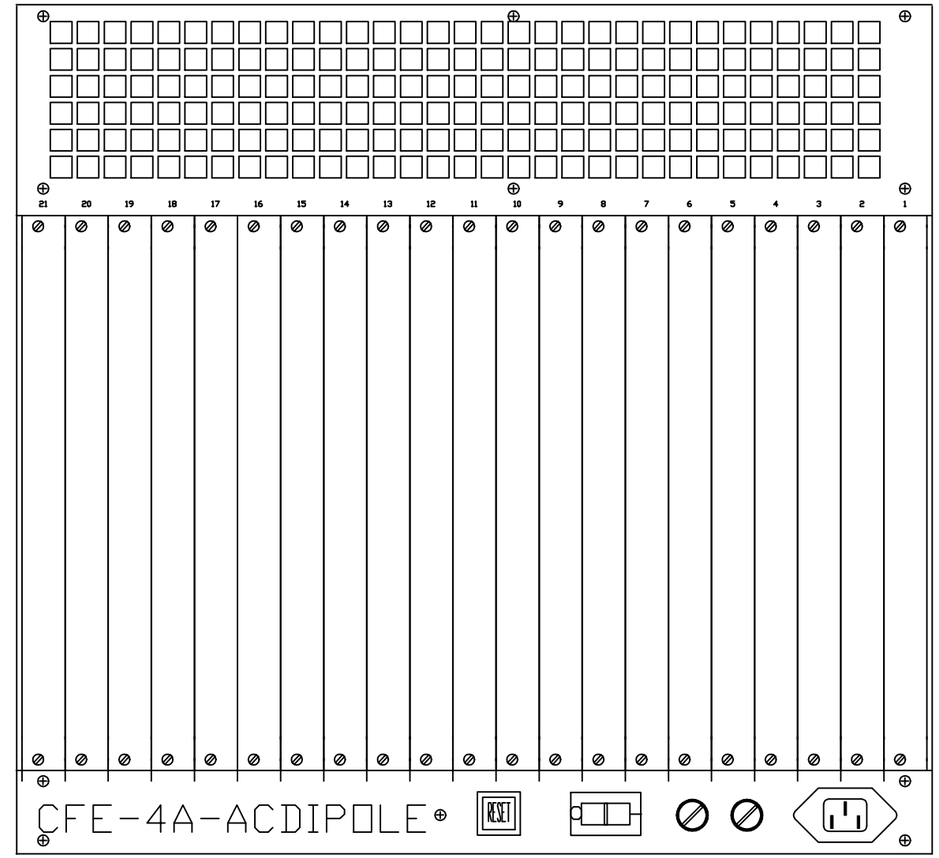
*AUTOCAD

REV.	ZONE	ECN NO.	DATE	BY	CKR	APP.

C-A, BNL 6/29/01 3:46 PM 8828.dwg



FRONT VIEW



REAR VIEW

NOTE:

1. ALL UNUSED SLOTS, FRONT AND REAR

-3	-2	-1	REF DESIGNATOR	ITEM NO.	DESCRIPTION	MAT'L. DWG NO.,BNL NO.
		19	SEE NOTE 1	10	VME BLANK PANEL (ELECTRO-SPACE ESFE-2985)	
				9		
				8		
				7		
				6		
				5		
		1	SLOT 3	4	V108 UTILITY MODULE	94028094
		1	SLOT 2	3	MEMORY BOARD	MM-6702
		1	SLOT 1	2	FRONT END COMPUTER	MVME2100
		1	N/A	1	VME CHASSIS	RHIC-93008000

QTY REQD

INTERPRET IN GENERAL ACCORDANCE WITH ASME Y14.24M-1989

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES

DECIMAL TOLERANCES
.X ±.030
.XX ±.015
.XXX ±.005
ANGULAR TOLERANCE
± .5°

NA FINISH

BREAK SHARP EDGES
MAX. XX MIN. XX

OUTSTANDING ECN

Q.A. CATEGORY A-3		DATE	BROOKHAVEN NATIONAL LABORATORY
DRAWN BY	Ed Koropsak	6/14/01	UPTON, N.Y. 11973
CHECKED BY			RHIC CONTROLS
DESIGN APPROVAL			BLDG. 1004A RACK R4A??
ENGINEER APPROVAL	R. MICHNOFF	6/14/01	VME CHASSIS CFE-4A-ACDIPOLE
SUPVR. APPROVAL			
NEXT ASSEMBLY			

SIZE D | DRAWING NUMBER 94028828 | REV. A

MATERIAL: ——— | SCALE: NA | WEIGHT: – | SHEET 1 OF 1

*AUTOCAD