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STURM2 Motherboard

Layer Definitions

Top Layer no plane routing / components

Layer 2 mixed plane split VPED / downbonds / routing

Layer 3 mixed plane amplifier regulator power

Layer 4 mixed plane amplifier power / routing

Layer 5 cam plane ground plane 1 / routing

Layer 6 mixed plane common 5 volt power

Layer 7 cam plane ground plane 2

Bottom Layer no plane routing / components

institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
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title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV

sheet #:	1 of 17
sheet description:	TOP Block
date last modified:	2011-10-13

6 5 4 3 2 1

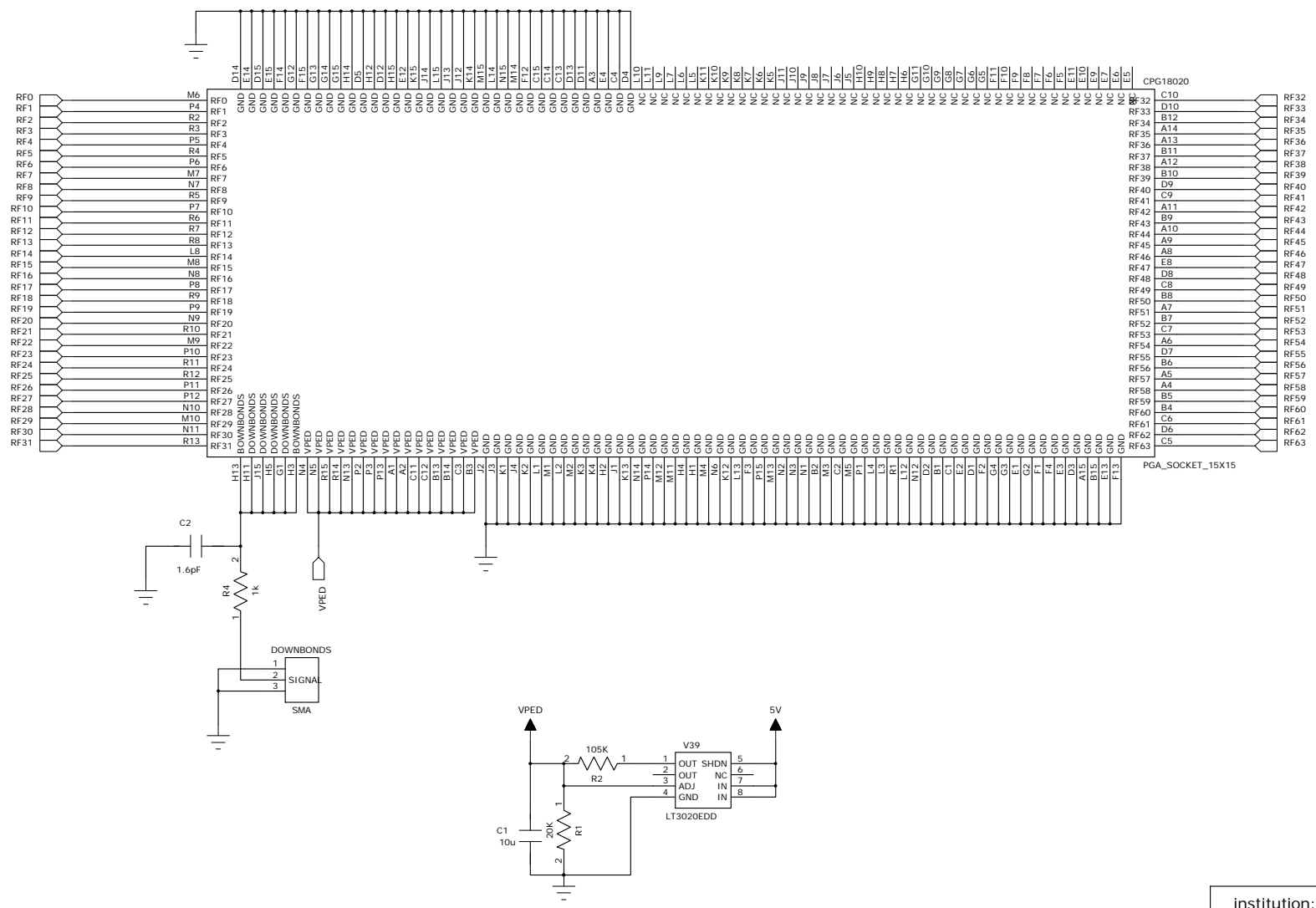
E

D

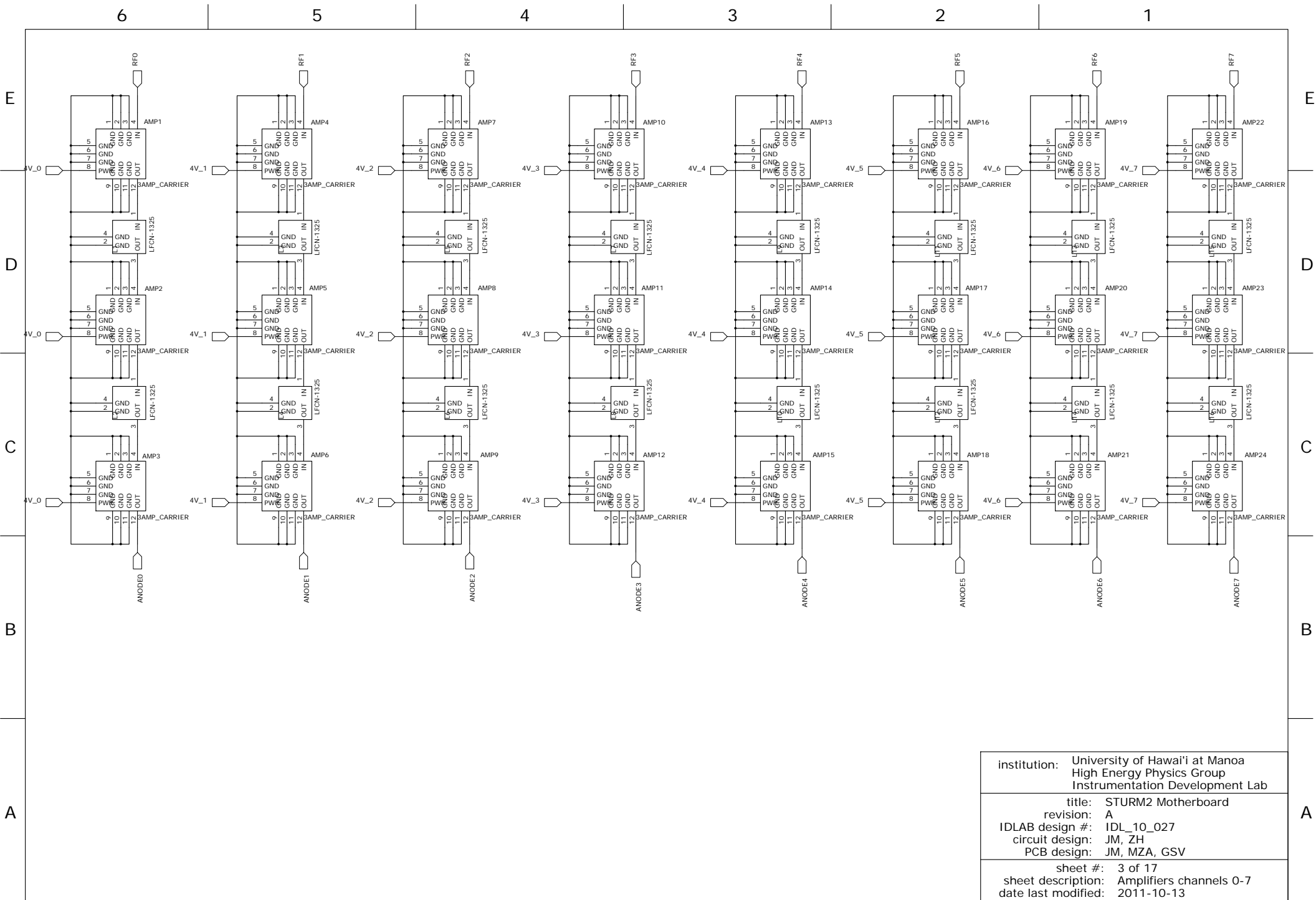
C

B

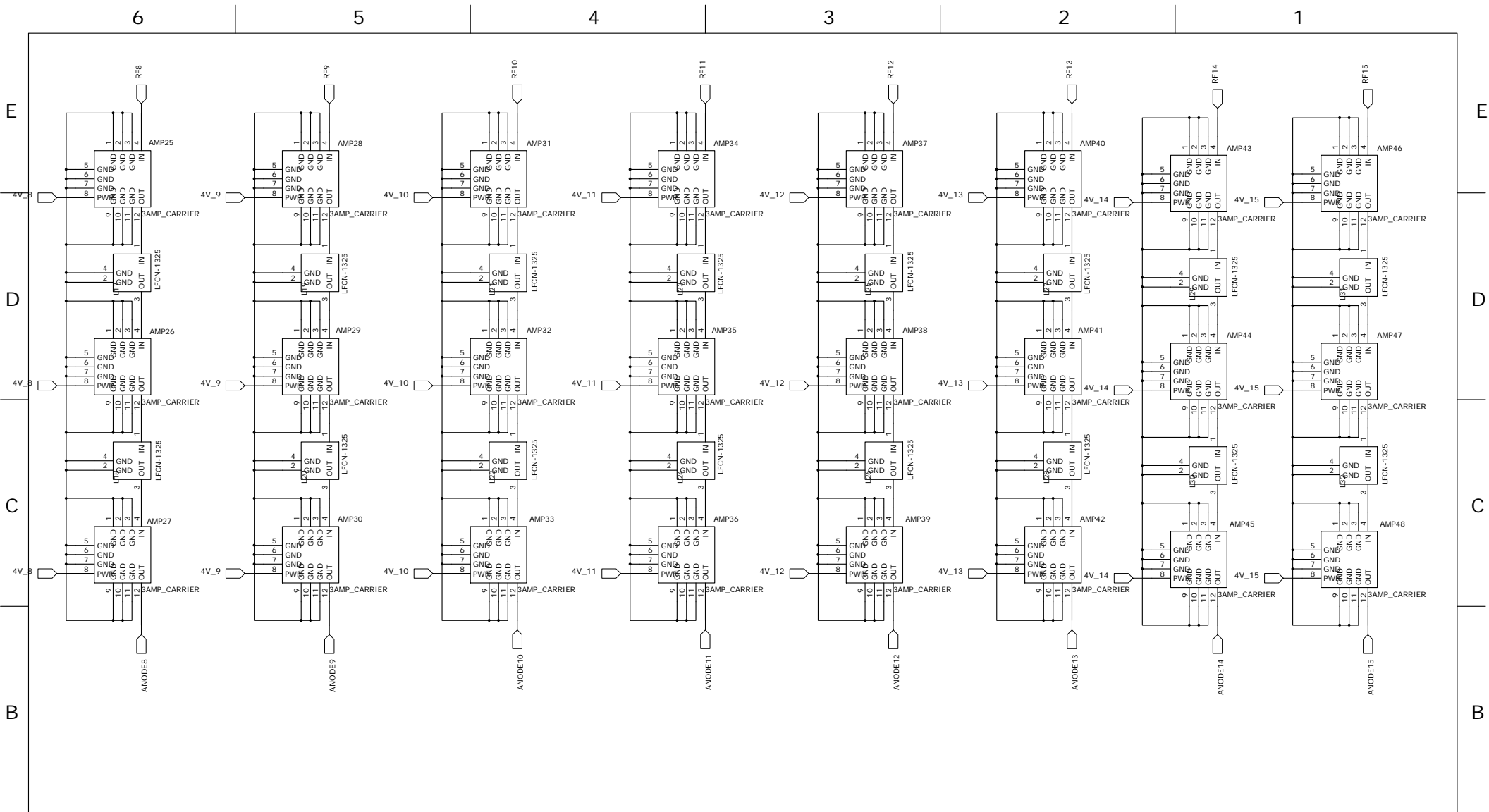
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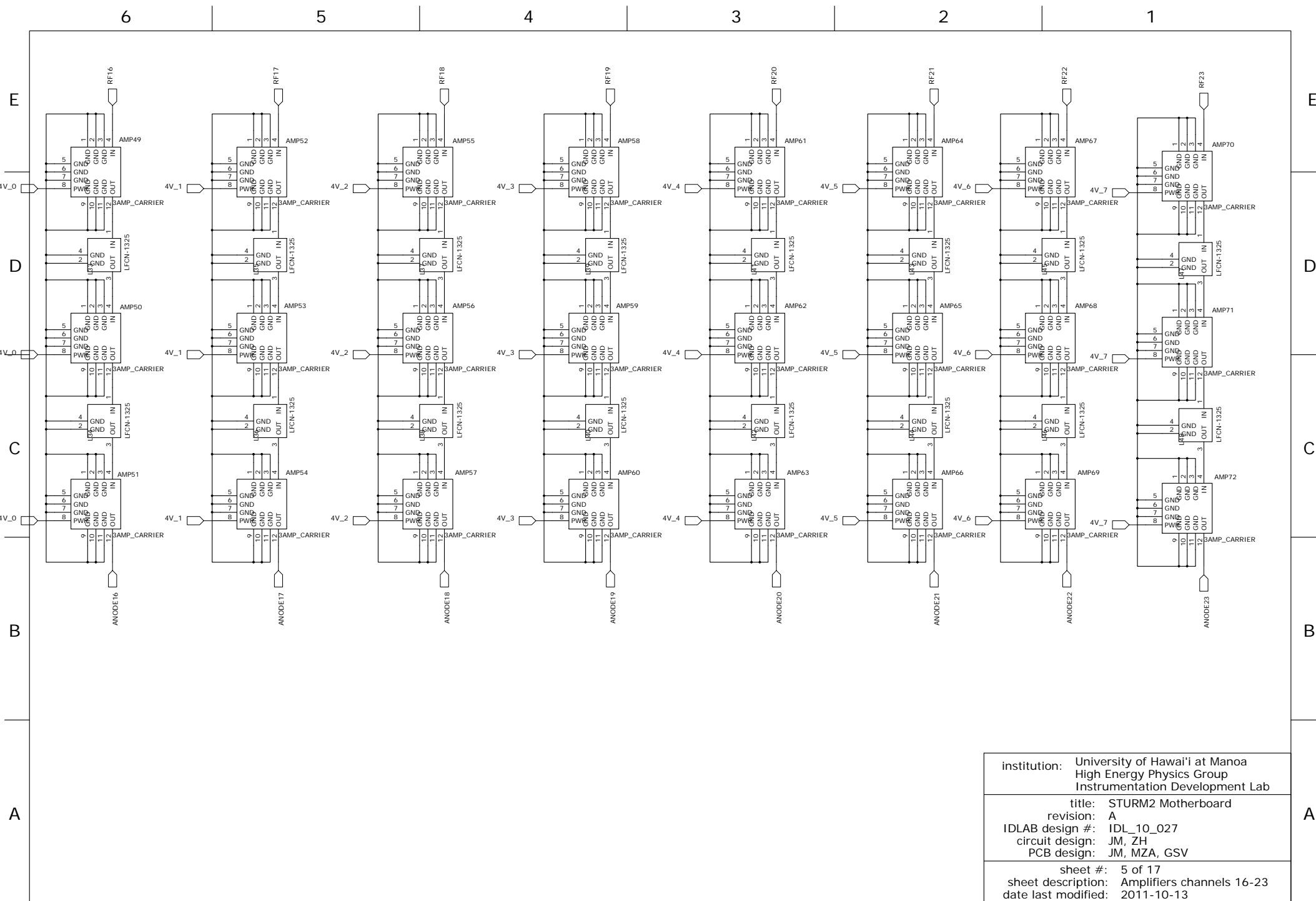
institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	2 of 17
sheet description:	Fermionics sensor
date last modified:	2011-10-13



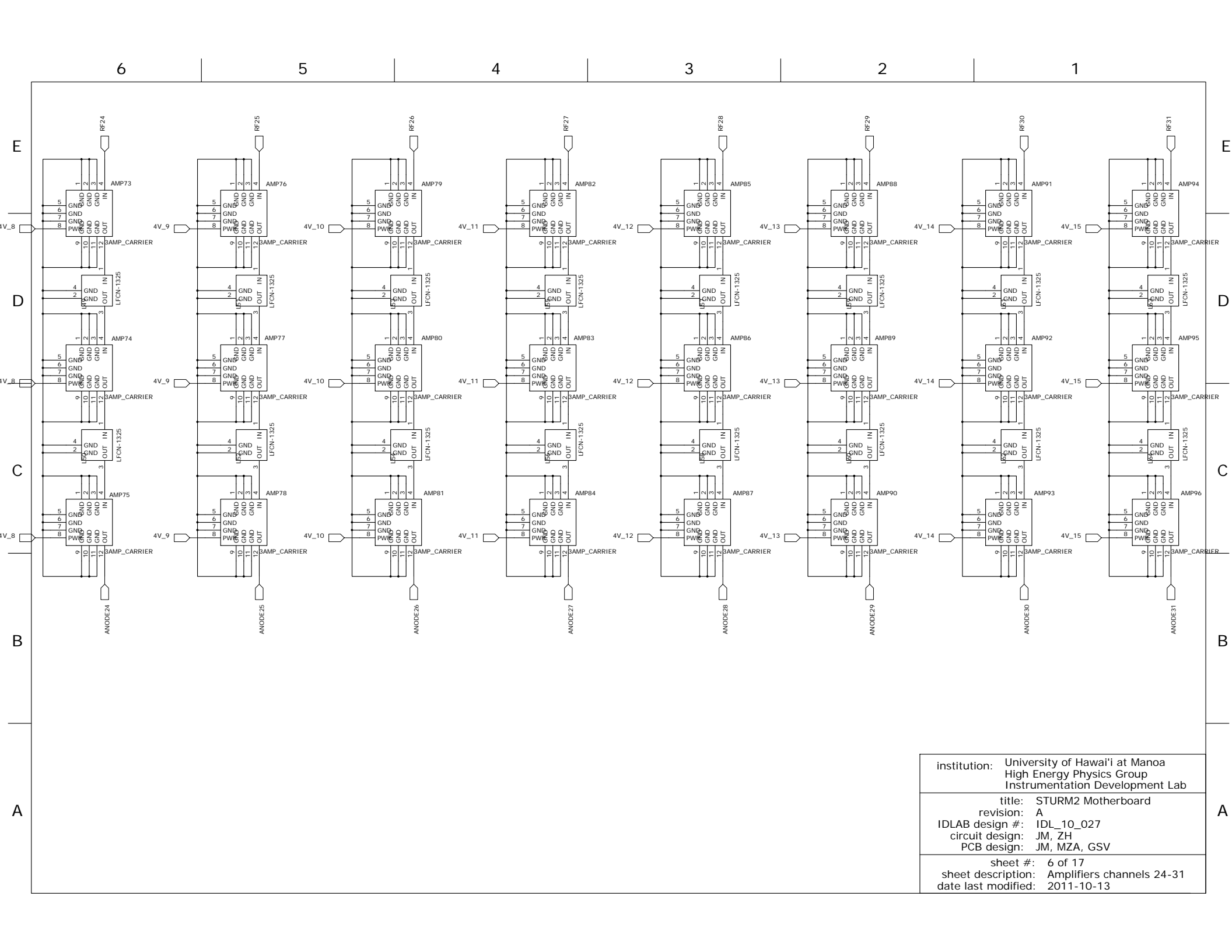
institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	3 of 17
sheet description:	Amplifiers channels 0-7
date last modified:	2011-10-13



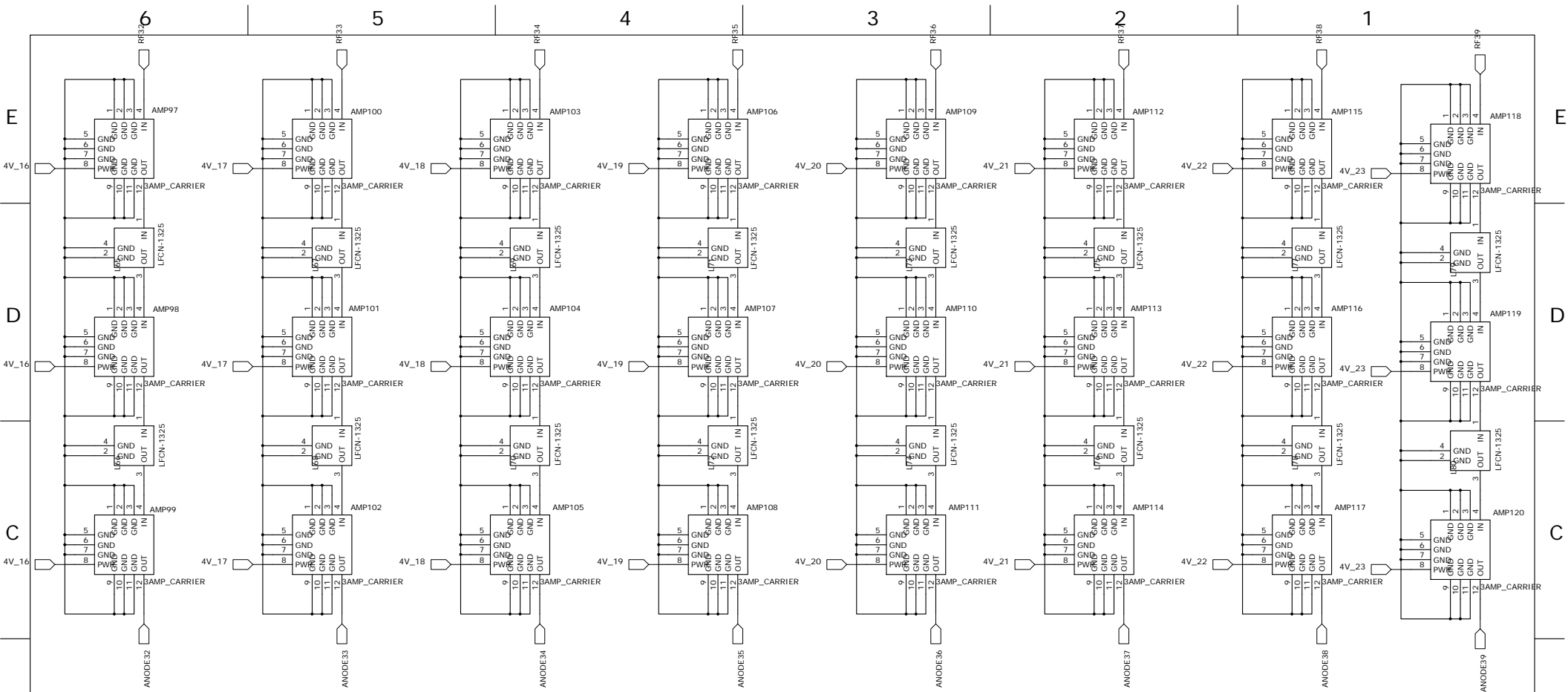
institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	4 of 17
sheet description:	Amplifiers channels 8-15
date last modified:	2011-10-13



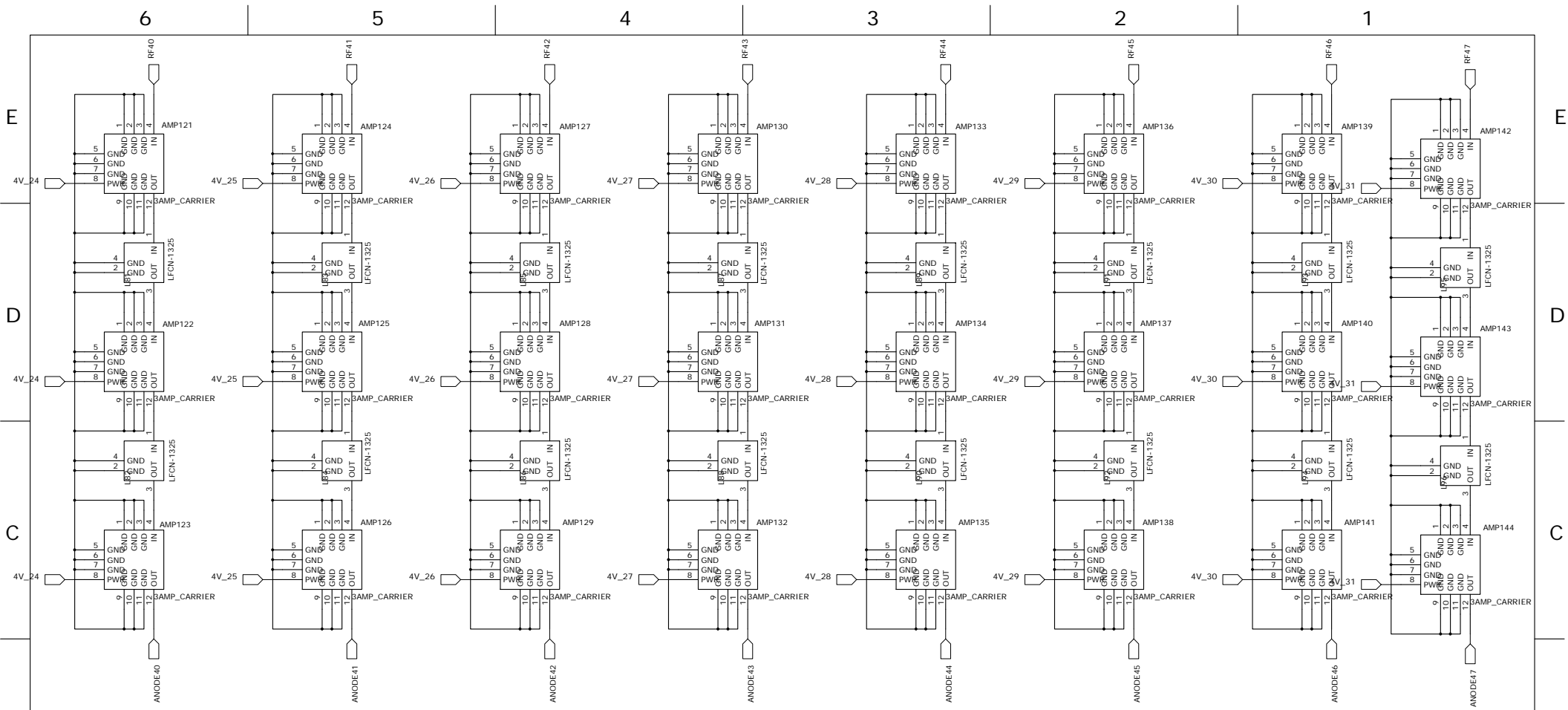
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title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	5 of 17
sheet description:	Amplifiers channels 16-23
date last modified:	2011-10-13



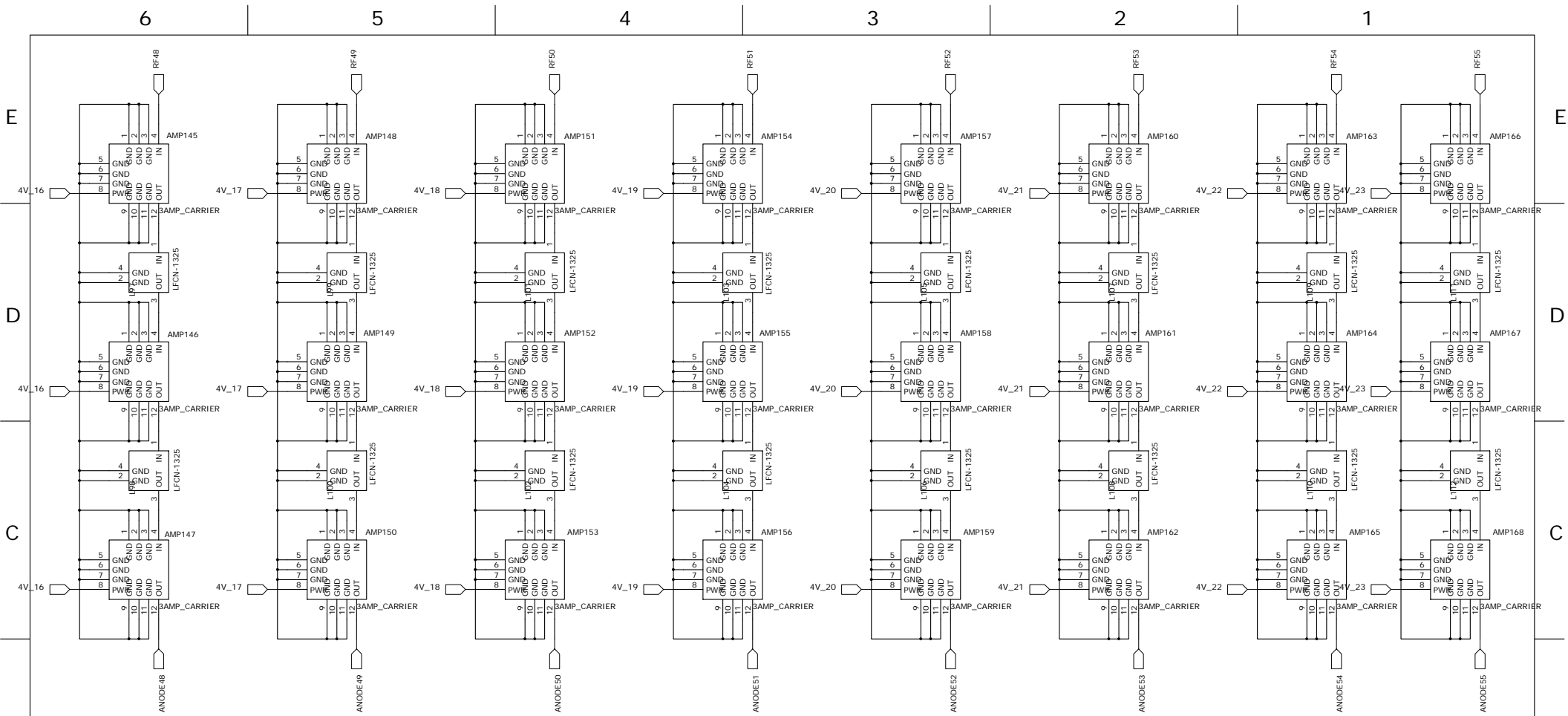
institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	6 of 17
sheet description:	Amplifiers channels 24-31
date last modified:	2011-10-13



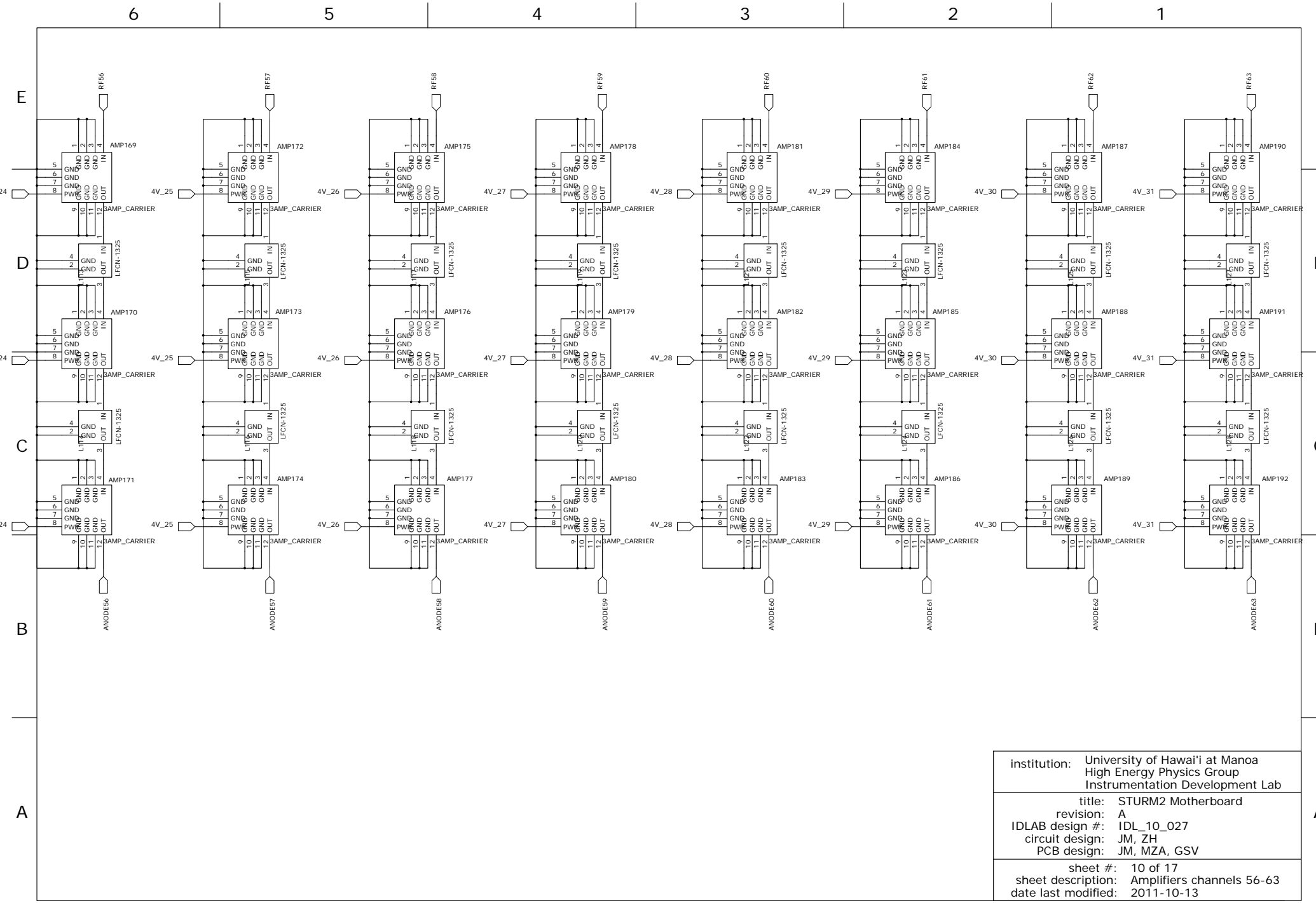
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title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	7 of 17
sheet description:	Amplifiers channels 31-39
date last modified:	2011-10-13



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	8 of 17
sheet description:	Amplifiers channels 40-47
date last modified:	2011-10-13



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	9 of 17
sheet description:	Amplifiers channels 48-55
date last modified:	2011-10-13



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	10 of 17
sheet description:	Amplifiers channels 56-63
date last modified:	2011-10-13

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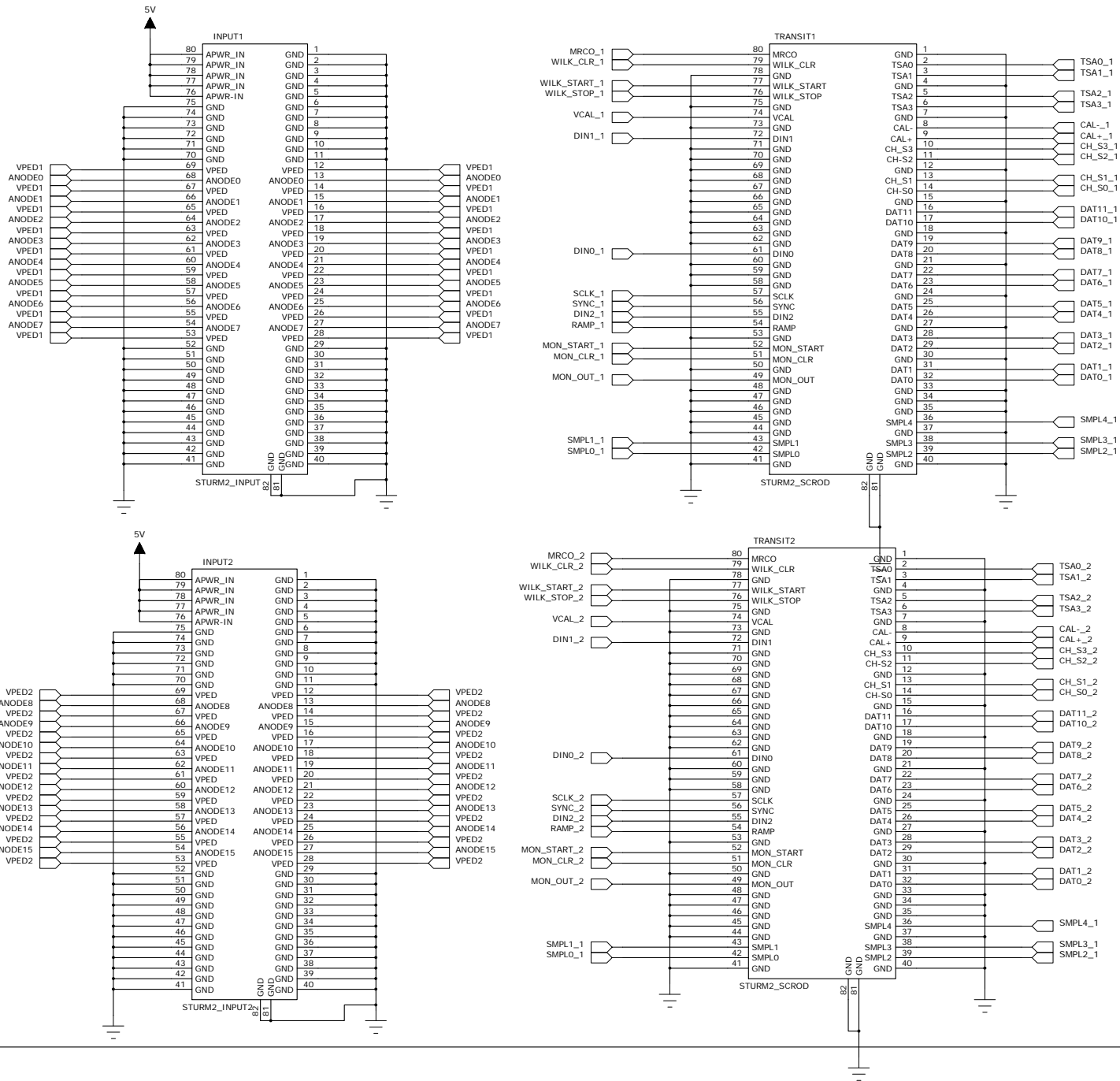
E

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A



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	11 of 17
sheet description:	STURM2 interface 1-2
date last modified:	2011-10-13

6

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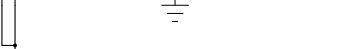
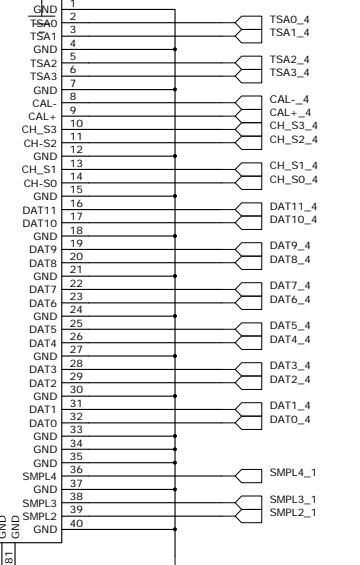
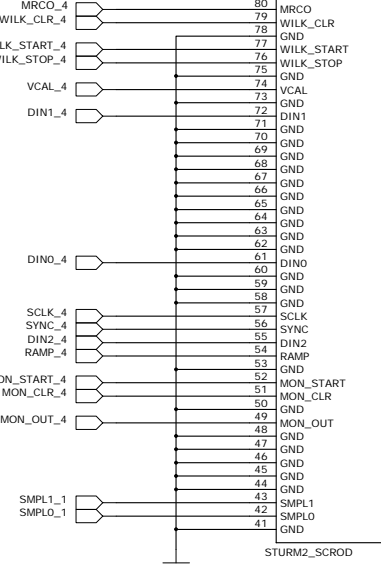
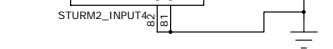
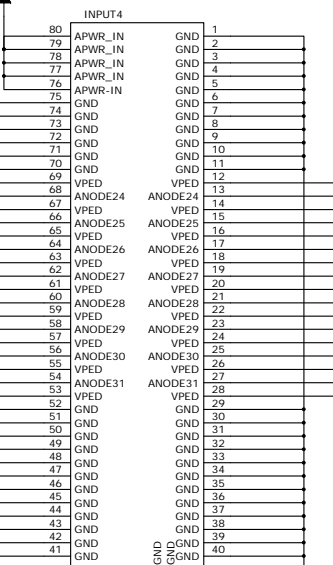
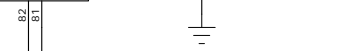
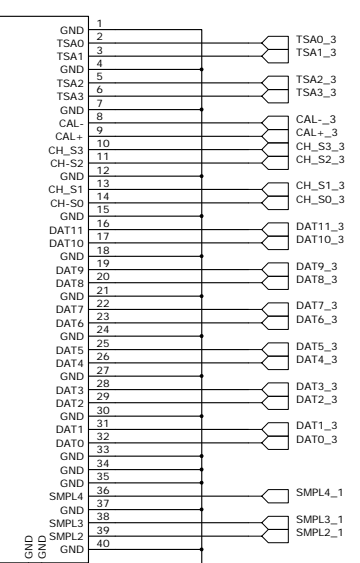
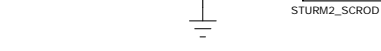
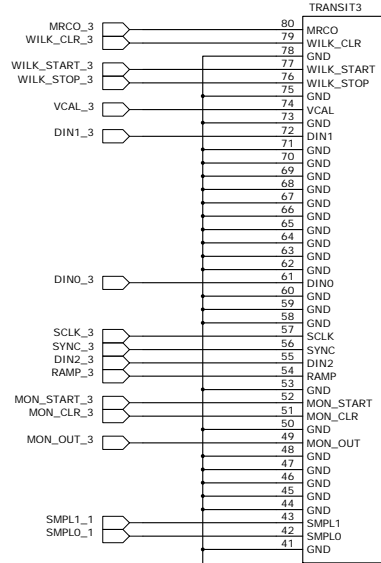
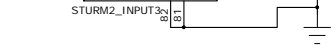
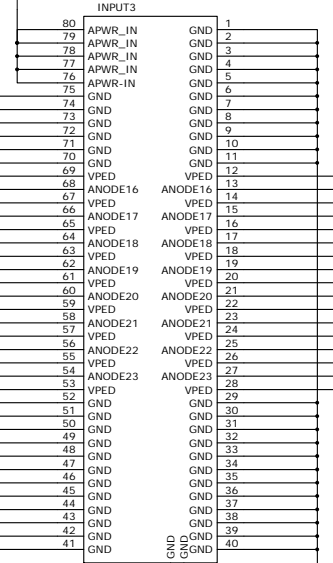
B

A

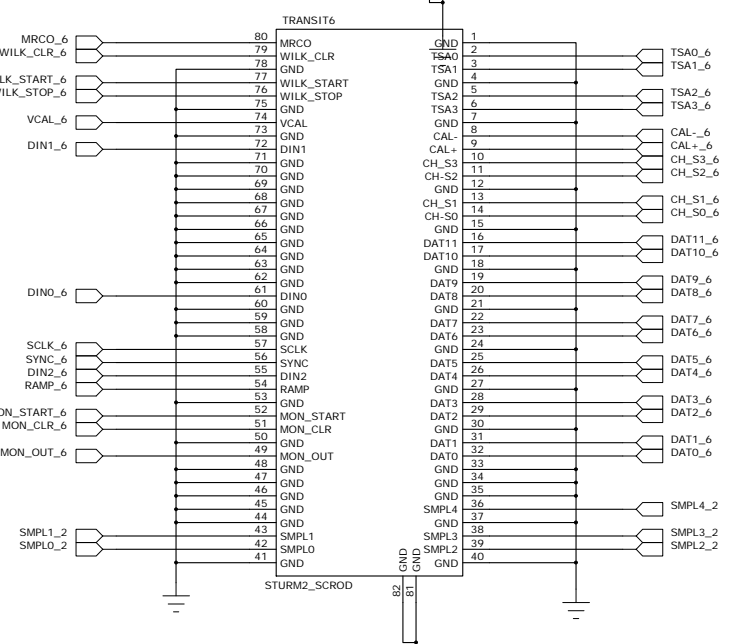
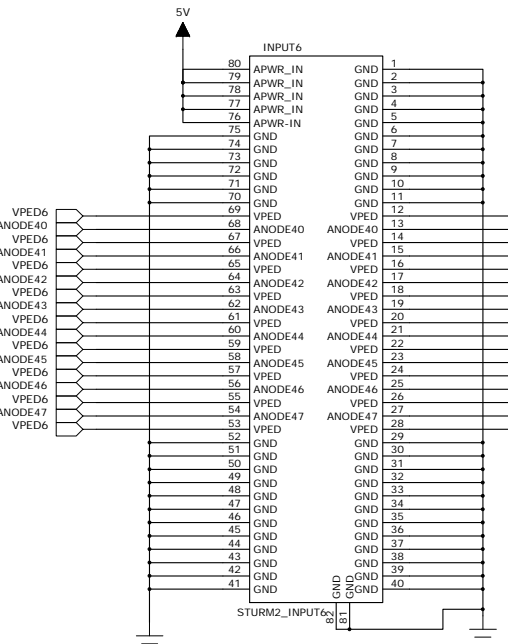
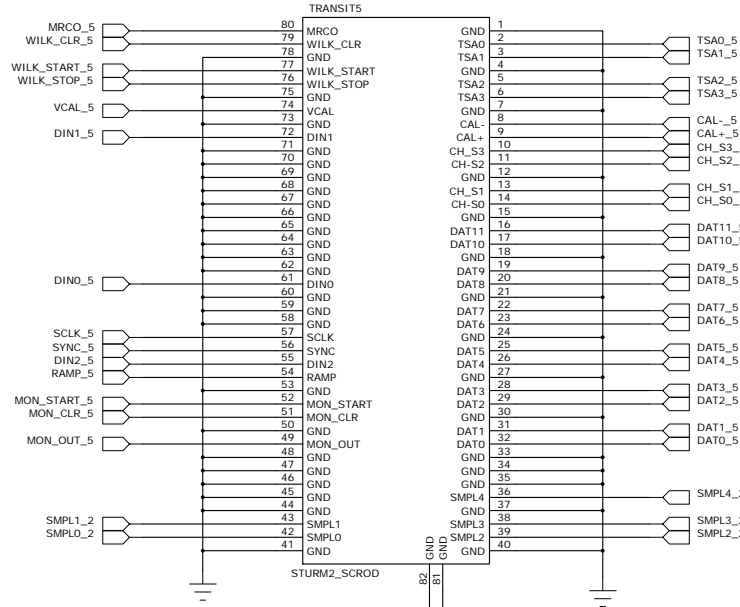
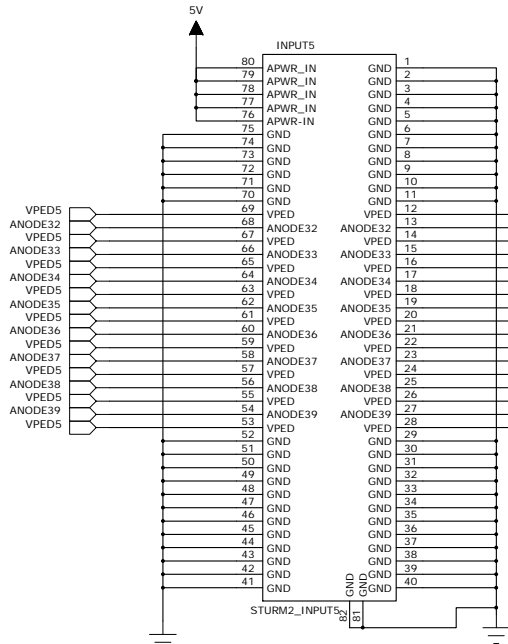
A

5V

5V



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	12 of 17
sheet description:	STURM2 interface 3-4
date last modified:	2011-10-13



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	13 of 17
sheet description:	STURM2 interface 5-6
date last modified:	2011-10-13

6

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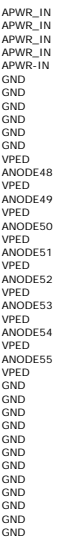
B

A

A

5V

INPUT7

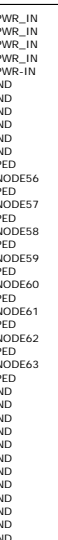


STURM2_INPUT7



5V

INPUT8

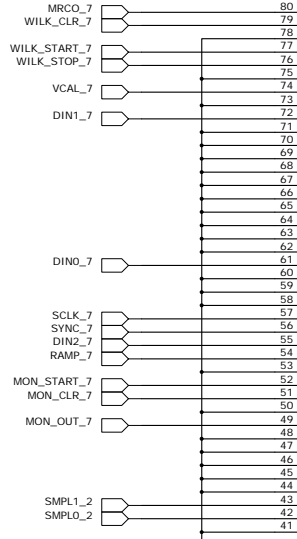


STURM2_INPUT8



5V

TRANSIT7

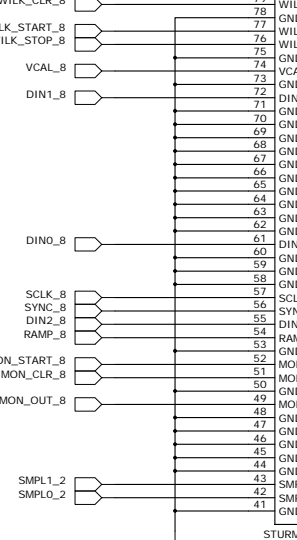


STURM2_SCROD



5V

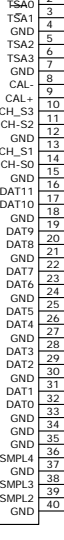
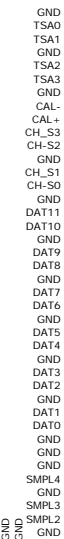
TRANSIT8



STURM2_SCROD



5V



institution: University of Hawai'i at Manoa
 High Energy Physics Group
 Instrumentation Development Lab

title: STURM2 Motherboard
 revision: A
 IDLAB design #: IDL_10_027
 circuit design: JM, ZH
 PCB design: JM, MZA, GSV

sheet #: 14 of 17
 sheet description: STURM2 interface 7-8
 date last modified: 2011-10-13

E

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C

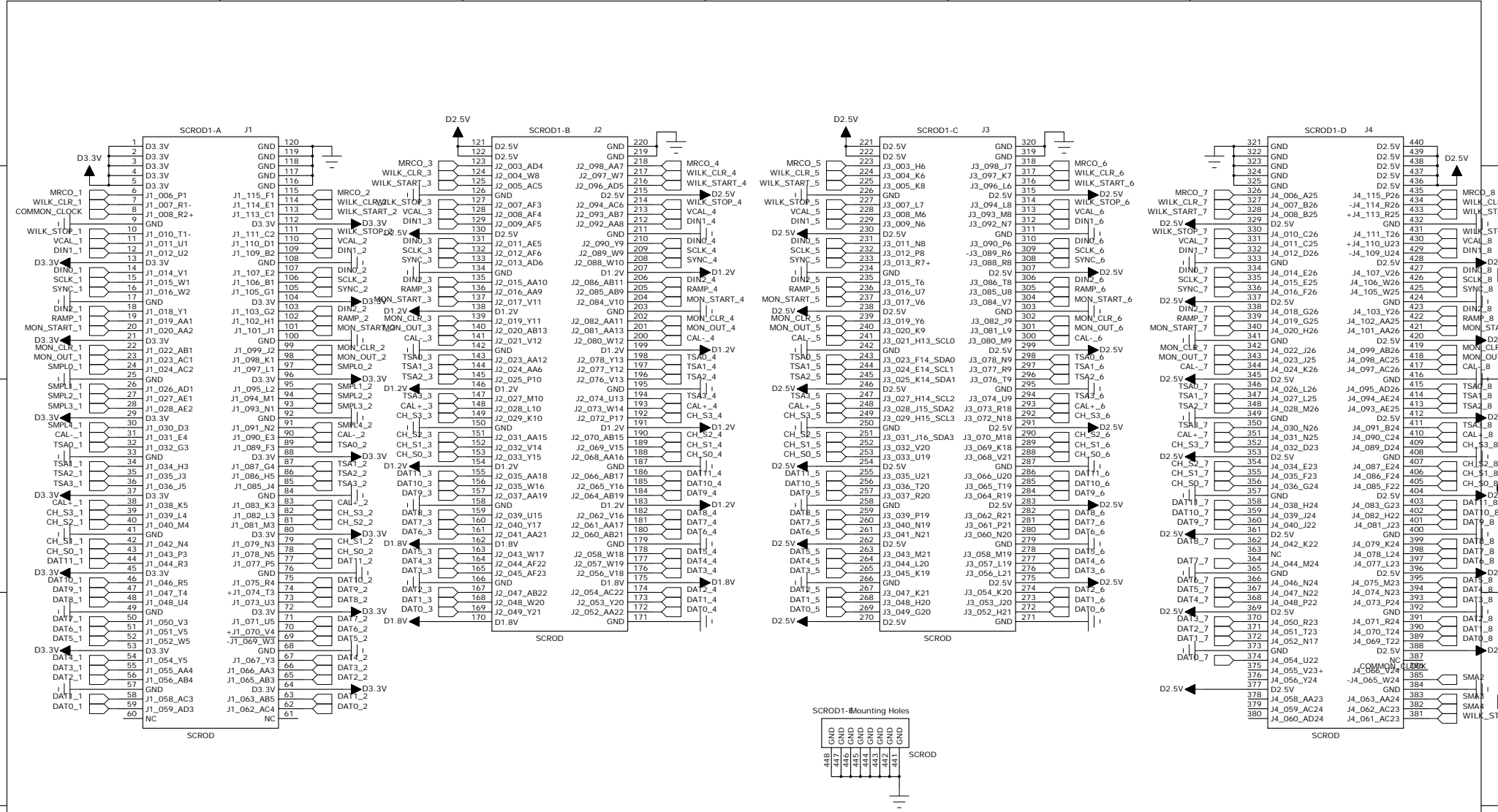
C

B

B

A

A



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	15 of 17
sheet description:	SCROD interface
date last modified:	2011-10-13

6

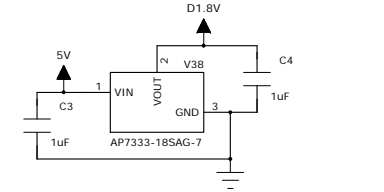
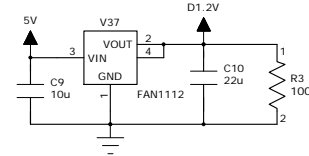
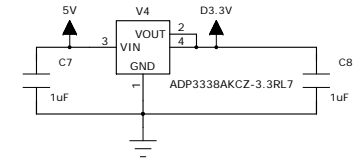
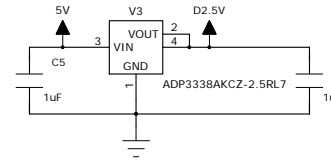
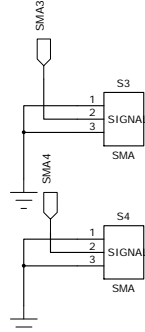
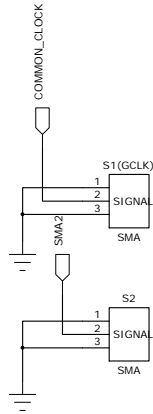
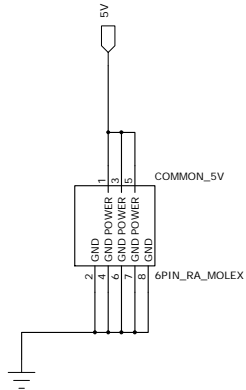
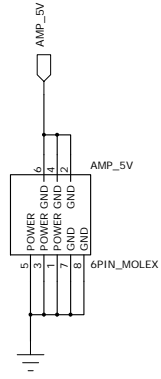
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1



institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	16 of 17
sheet description:	Power
date last modified:	2011-10-13

6

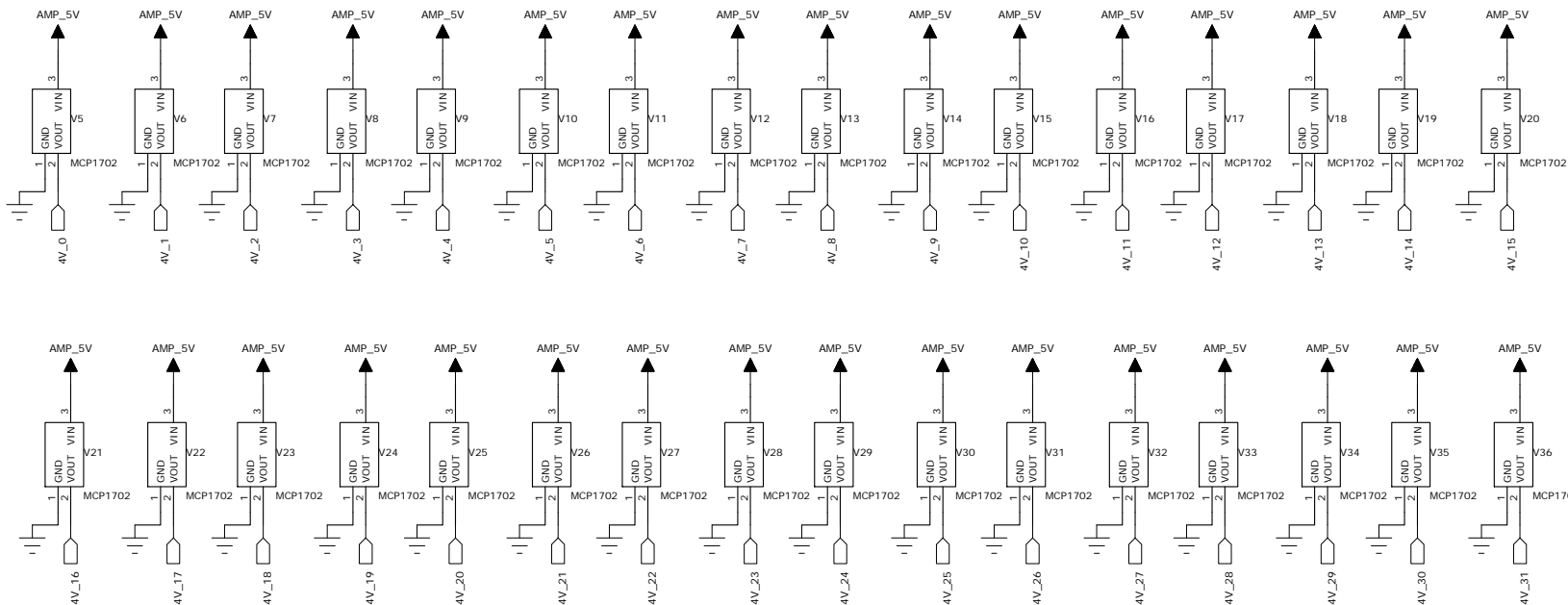
5

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1 regulator for 2 channels

institution:	University of Hawai'i at Manoa High Energy Physics Group Instrumentation Development Lab
title:	STURM2 Motherboard
revision:	A
IDLAB design #:	IDL_10_027
circuit design:	JM, ZH
PCB design:	JM, MZA, GSV
sheet #:	17 of 17
sheet description:	Amplifier power
date last modified:	2011-10-13