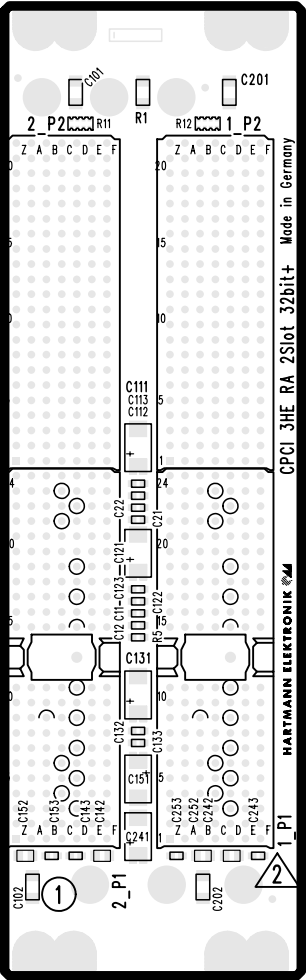


123

33RA024_14 with Rear I/O MTBF 1.180.000 h
33RA023_14 without Rear I/O MTBF 1.200.000 h



Coding Key

V(I/O)	
+3.3V	+5V
	
Cadmium Yellow	Brilliant Blue

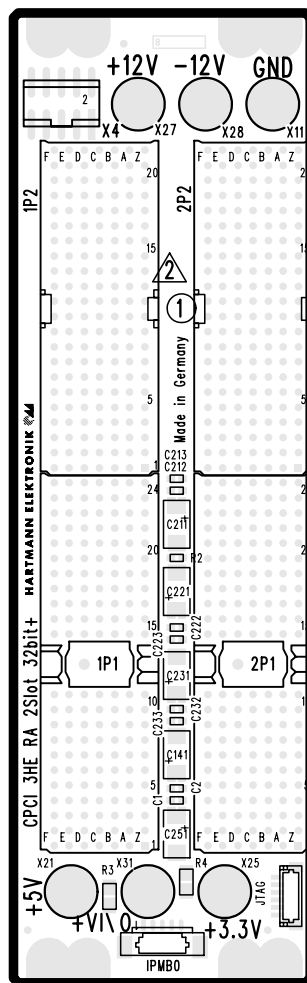
Hartmann Elektronik
CPC1 3HE RA 2Slot 32bit+
BUS676 Rev.BB

Silkscreen Top
Pads Top

				2007	Date	Name	Title	Hartmann Elektronik CPCI 3HE RA 2Slot 32bit+ BUS676		Rev.BB			
				Author	01.03.	Wiedmann							
				Check	01.03.	Wiedmann							
				DIN A4 M 1:1									
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet				
									of				
Rev	Description	Date	Name							Device: HE-C33RA025--4		File: BUS676BB	

BOTTOM VIEW

Pin	Signal	Pin	Signal
1	PRST-	2	FAL-
3	DEG-	4	+3.3V-Sense
5	+3.3V	6	GND-Sense (+3.3V)
7	+5V	8	+5V-Sense
9	GND	10	GND-Sense (+5V)



Shrouds
1P1 - 2P1
on request

Pin	Signal
1	IPMB_SCL
2	GND
3	IPMB_SDA
4	IPMB_PWR
5	SMB_RSV

Pin	Signal
1	GND
2	TCK
3	TMS
4	TRST-
5	TDI
6	TDO

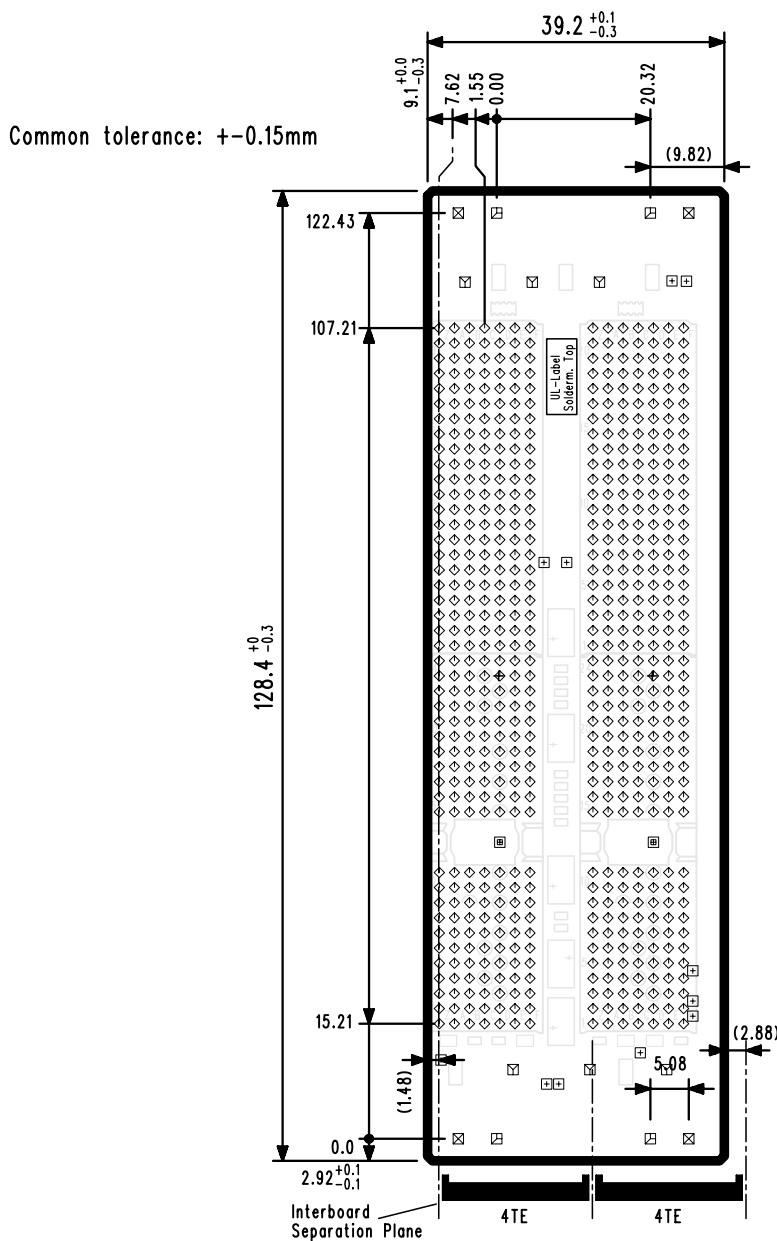
☐ SR2 ☐

SR3

BU2676 Rev.BB
CPCI 3HE RA Slot 32bit+
Hartmann Elektronik

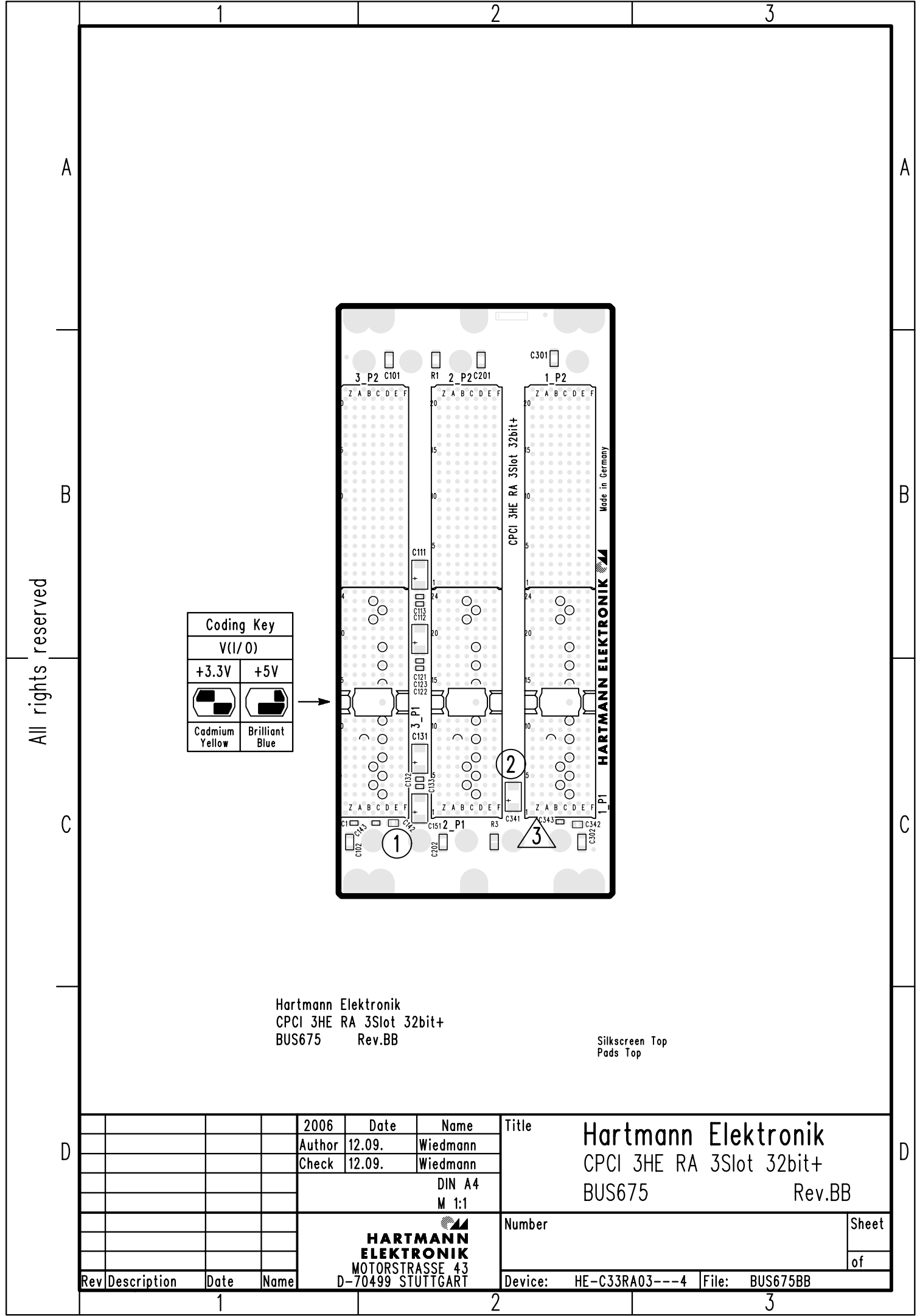
Silkscreen Bottom
Pads Bottom

				2007	Date	Name	Title Hartmann Elektronik CPCI 3HE RA 2Slot 32bit+ BUS676 Rev.BB					
				Author	01.03.	Wiedmann						
				Check	01.03.	Wiedmann						
				DIN A4								
				M 1:1								
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							Number					
										Sheet		
Rev	Description	Date	Name	Device: HE-C33RA025--4			File: BUS676BB					



Hartmann Elektronik
CPCI 3HE RA 2Slot 32bit+
BUS676 Rev.BB

				2007	Date	Name	Title Hartmann Elektronik CPCI 3HE RA 2Slot 32bit+ BUS676 Rev.BB						
				Author	01.03.	Wiedmann							
				Check	01.03.	Wiedmann							
				DIN A4 M 1:1									
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet				
									of				
Rev	Description	Date	Name							Device:	HE-C33RA025--4	File:	BUS676BB



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X4 Pin Assignment

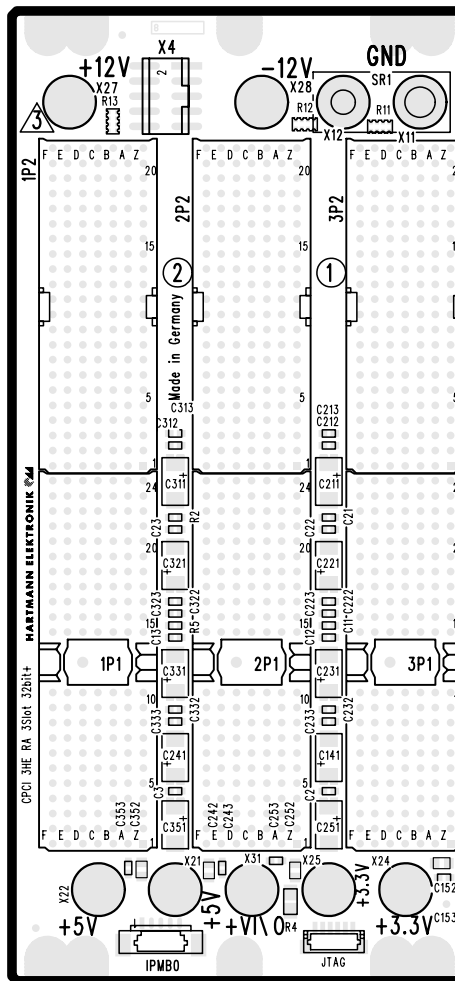
Pin	Signal	Pin	Signal
1	PRST-	2	FAL-
3	DEG-	4	+3.3V-Sense
5	+3.3V	6	GND-Sense (+3.3V)
7	+5V	8	+5V-Sense
9	GND	10	GND-Sense (+5V)

IPMB0 Pin Assignment

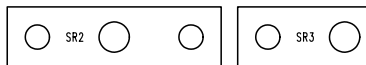
Pin	Signal
1	IPMB_SCL
2	GND
3	IPMB_SDA
4	IPMB_PWR
5	SMB_RSV

JTAG Pin Assignment

Pin	Signal
1	GND
2	TCK
3	TMS
4	TRST-
5	TDI
6	TDO



Busbar for +5V keying



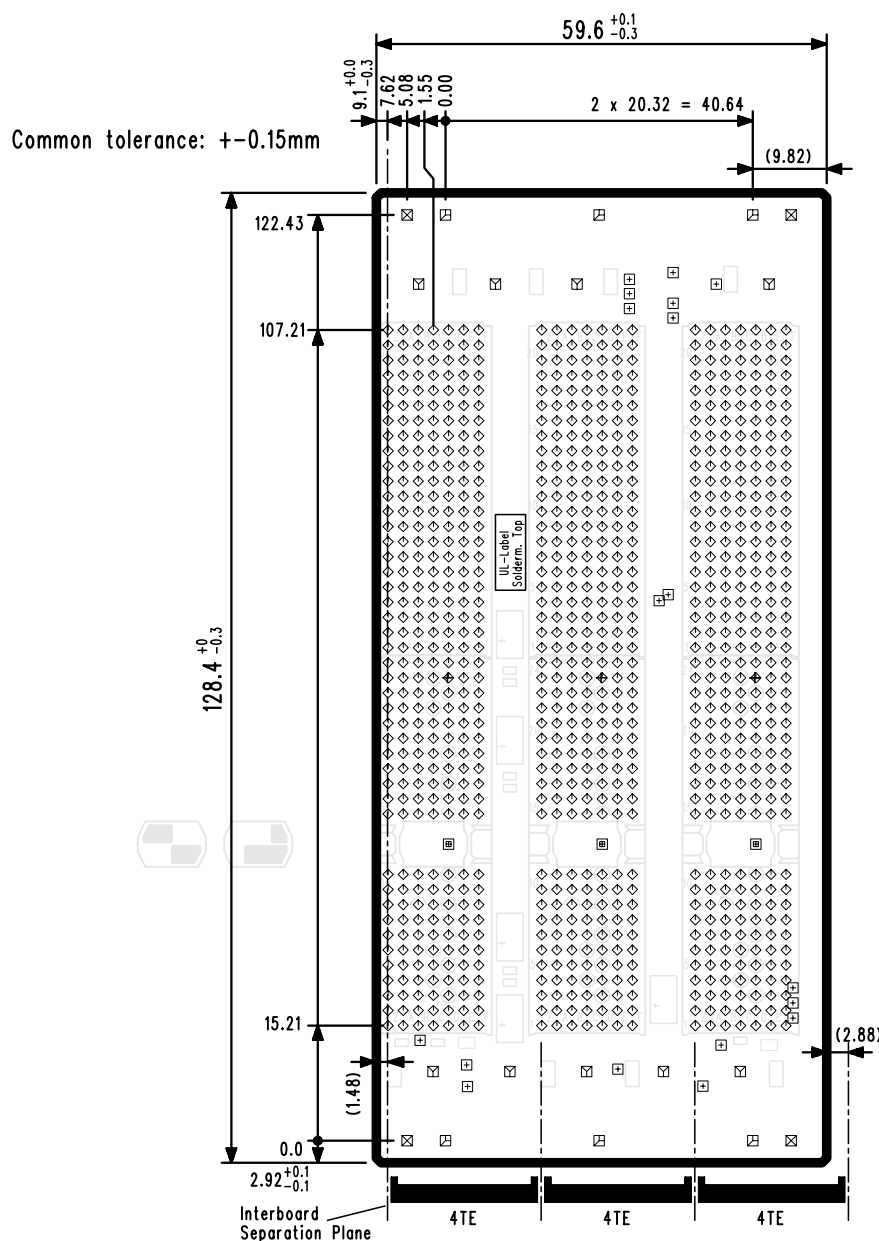
Busbar for +3.3V keying



Hartmann Elektronik
CPCI 3HE RA 3Slot 32bit+
Rev.BB

Silkscreen Bottom
Pads Bottom

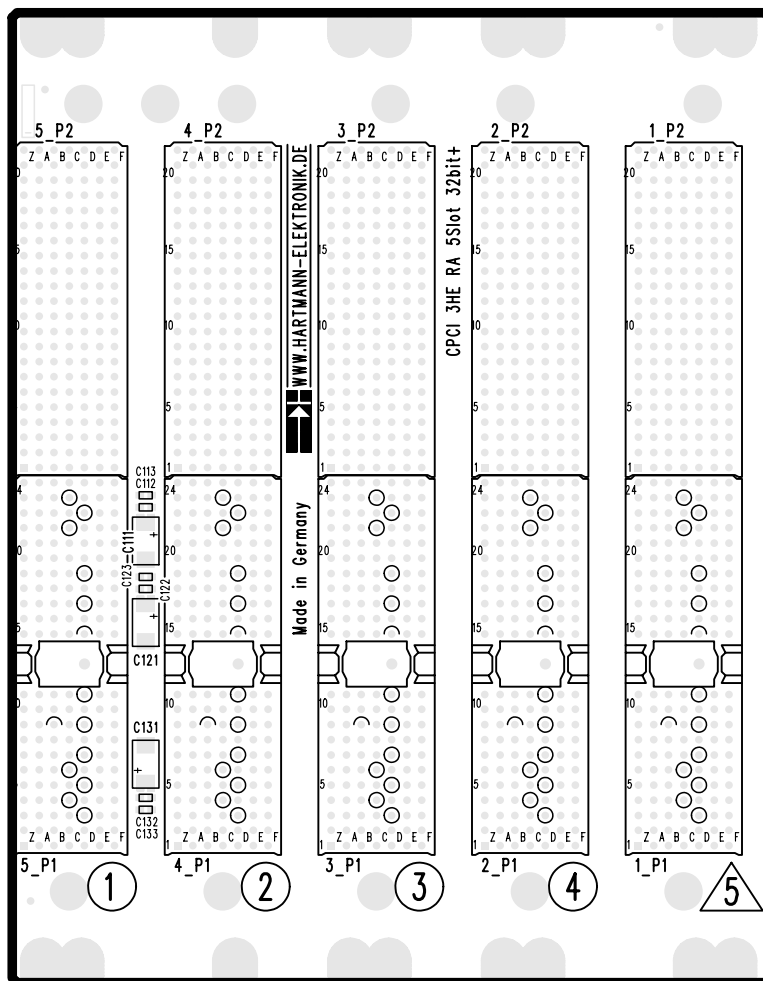
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				Check	12.09.	Wiedmann				
				DIN A4 M 1:1						
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet	
									of	
Rev	Description	Date	Name				Device:	HE-C33RA03---4	File:	BUS675BB



Hartmann Elektronik
CPCI 3HE RA 3Slot 32bit+
BUS675 Rev.BB

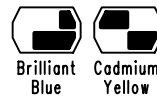
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				Author	12.09.	Wiedmann			
				Check	12.09.	Wiedmann			
				DIN A4 M 1:1					
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet
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Rev	Description	Date	Name				Device:	HE-C33RA03---4	File: BUS675BB

TOP VIEW



Keying

+5V +3.3V



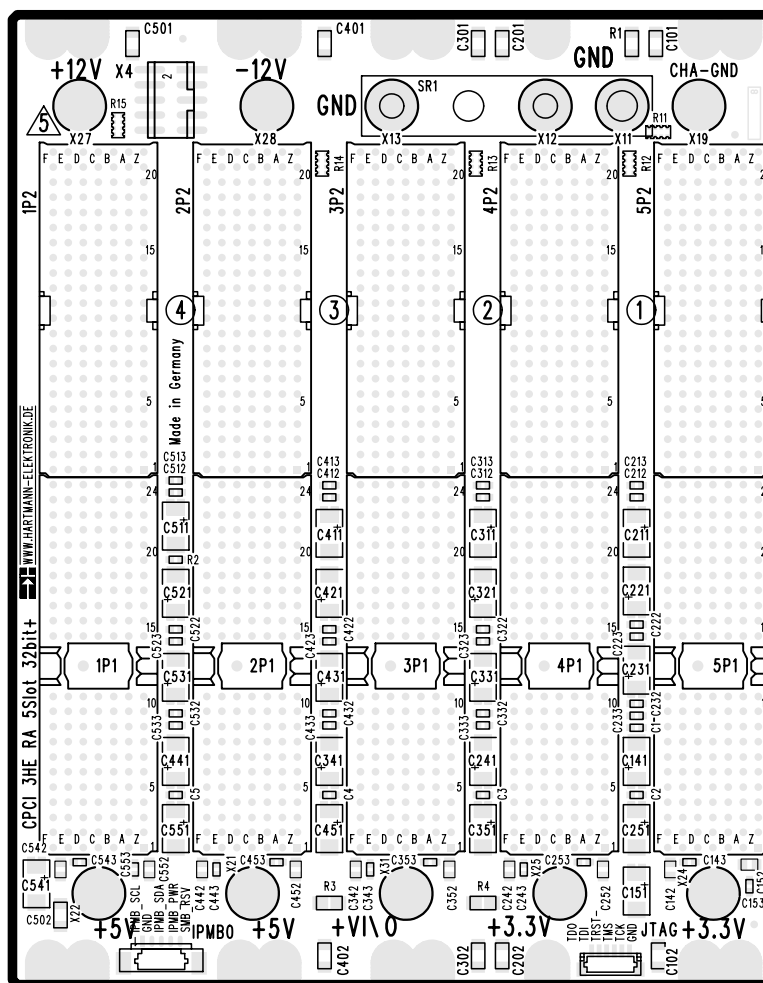
Hartmann Elektronik
CPCI 3HE RA 5Slot 32bit+
BUS673 Rev.BA

Silkscreen Top
Pads Top

				2000	Date	Name	Title Hartmann Elektronik CPCI 3HE RA 5Slot 32bit+ BUS673 Rev.BA			
				Author	10.11.	Ruthardt				
				Check	10.11.	Ruthardt				
				DIN A4 M 1:1						
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet	
									of	
Rev	Description	Date	Name				Device: HE-C33RA055--4			File: BUS673BA

Without geographic addressing on request

BOTTOM VIEW



Shrouds
1P1 - 5P1
on request

Busbar for +5V keying

Busbar for +3.3V keying

Silkscreen Bottom
Pads Bottom

Hartmann Elektronik
CPCI 3HE RA 5Slot 32bit+
Rev.BA

				2000	Date	Name	Title Hartmann Elektronik CPCI 3HE RA 5Slot 32bit+ BUS673 Rev.BA				
				Author	10.11.	Ruthardt					
				Check	10.11.	Ruthardt					
				DIN A4 M 1:1							
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet		
									of		
Rev	Description	Date	Name				Device: HE-C33RA055--4			File: BUS673BA	

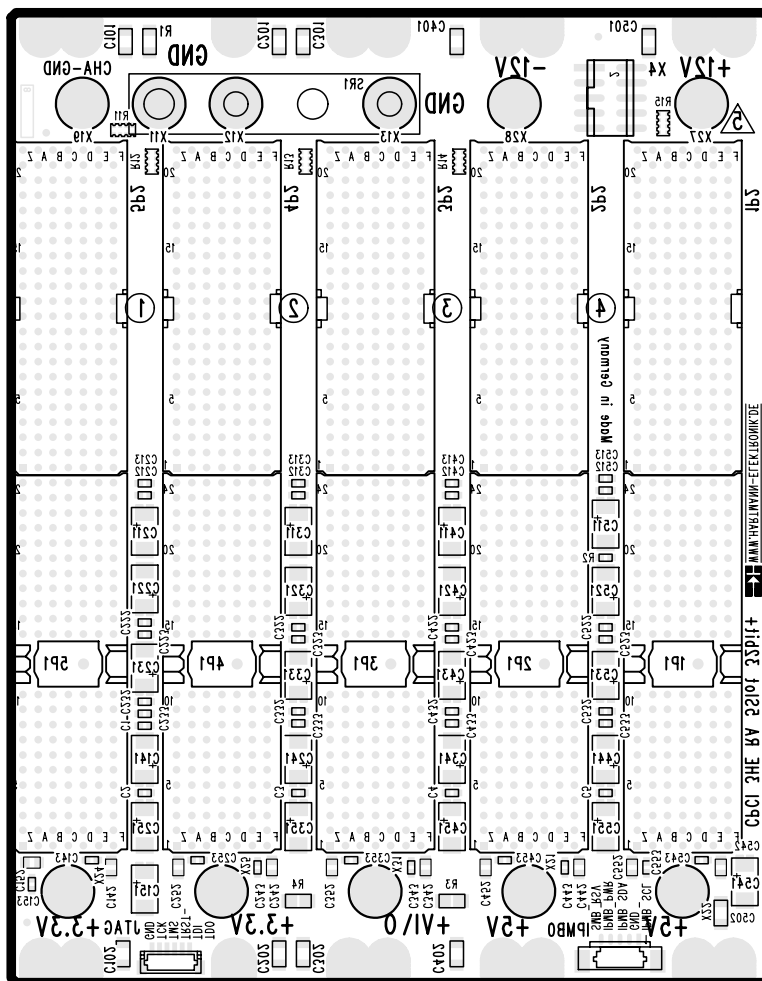
1

2

3

Without geographic addressing on request

BOTTOM VIEW

2Pin
on request
1P1 - 2P1

Busbar for +5V keying

Busbar for +3.3V keying

Hartmann Elektronik
CPCI 3HE RA 5Slot 32bit+
BUS673 Rev.BA

Silkscreen Bottom
Pads Bottom

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D

D

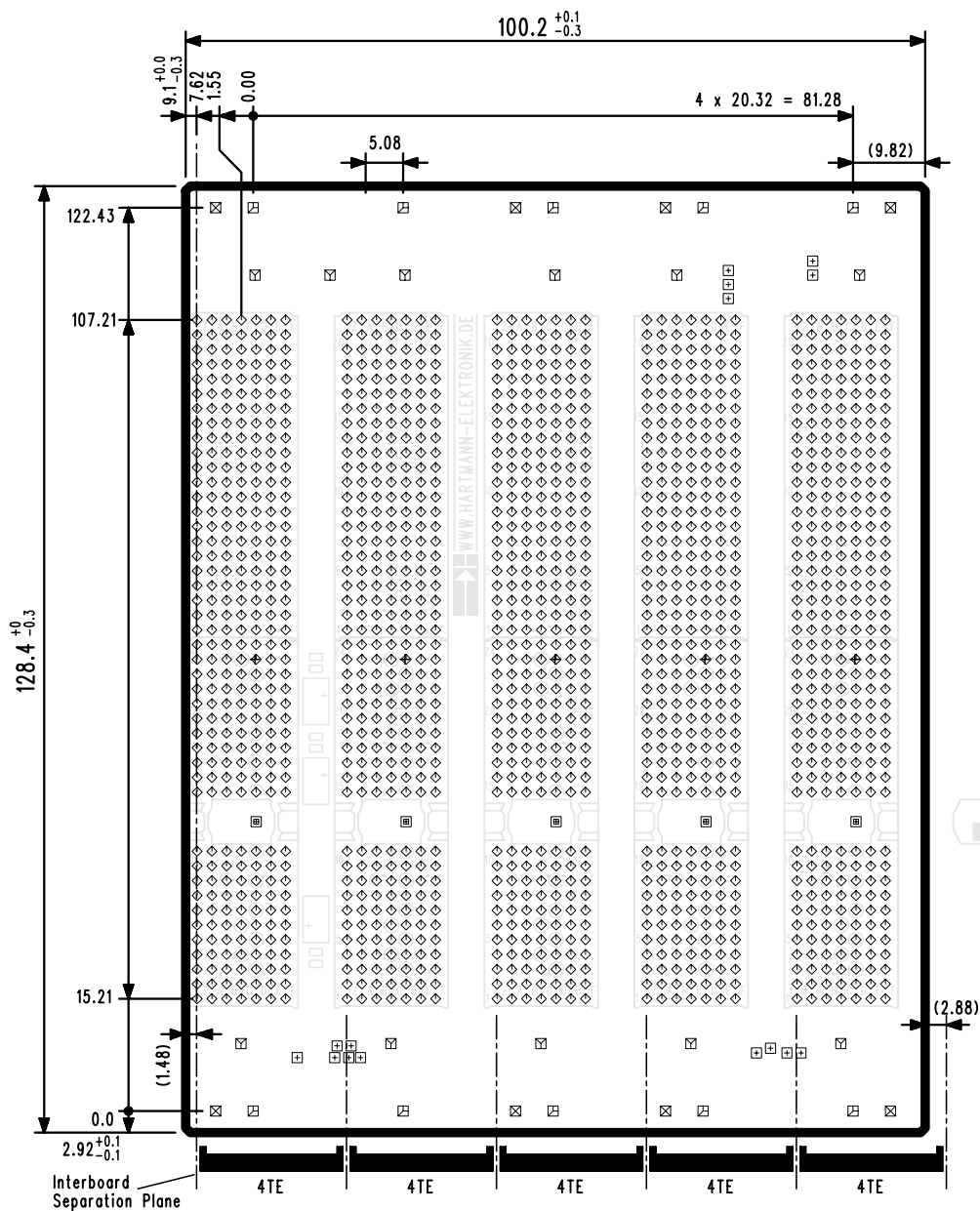
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				Check	10.11.	Ruthardt					
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Rev	Description	Date	Name				Device:		HE-C33RA055--4	File:	BUS673BA

1

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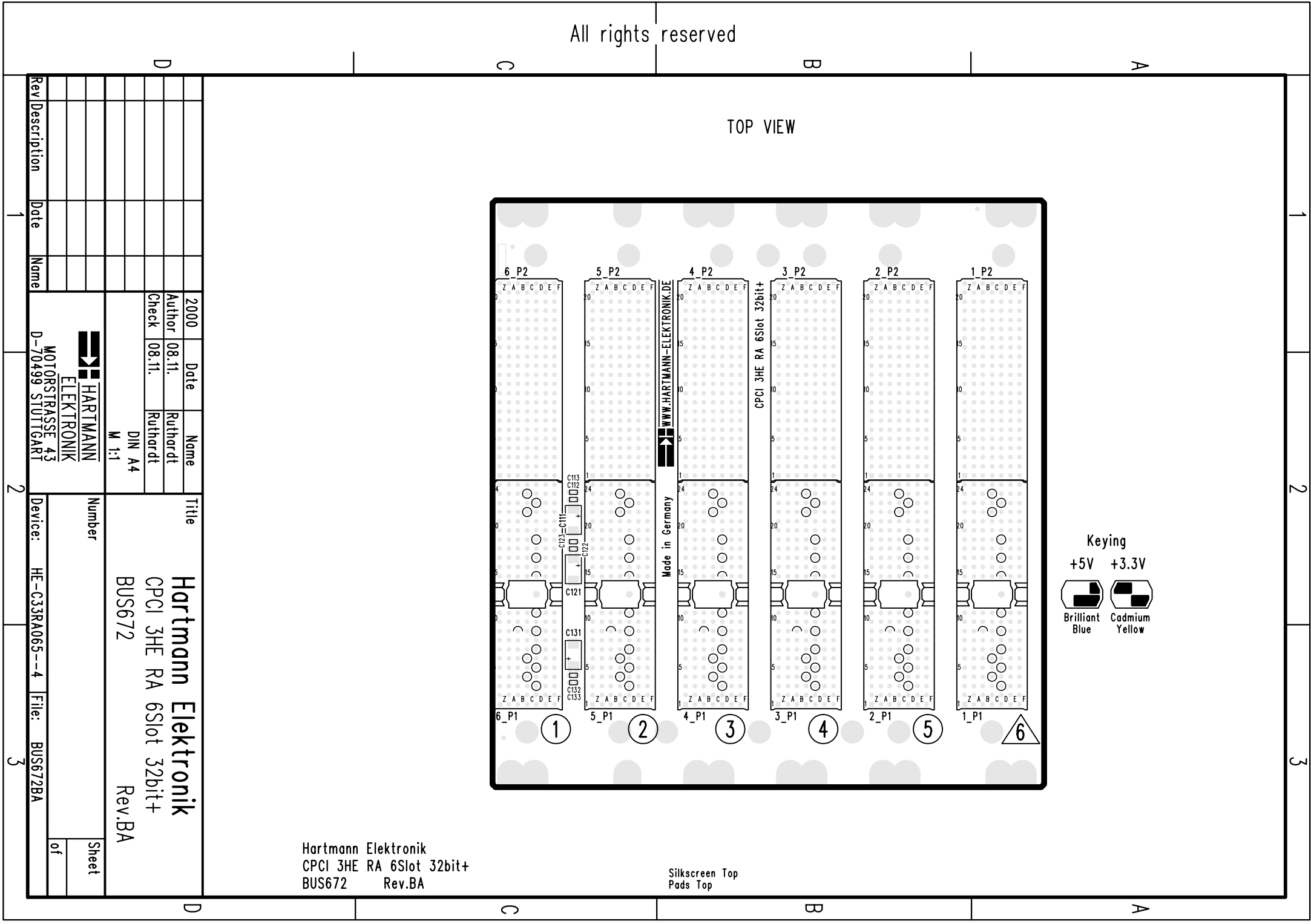
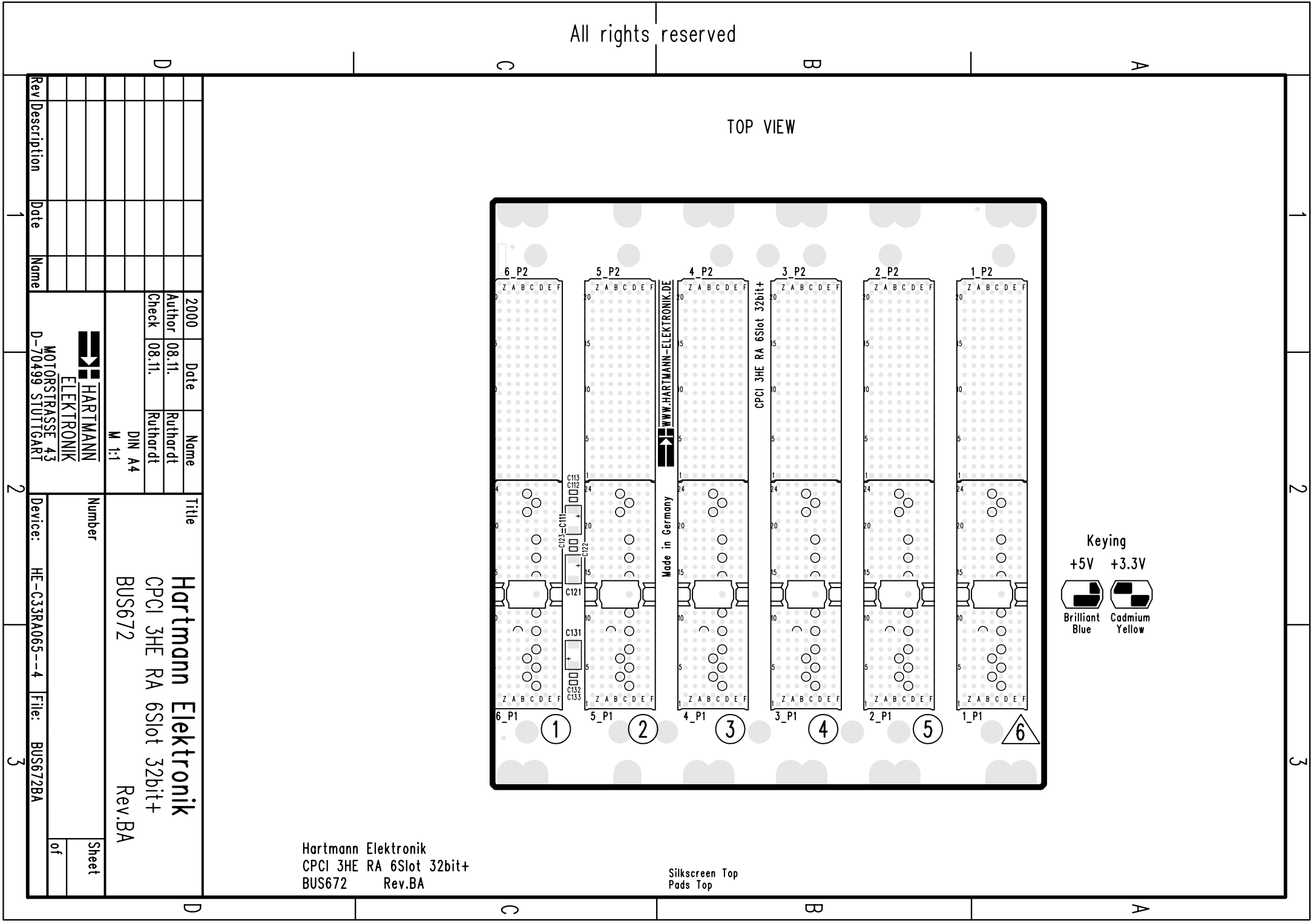
3

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Hartmann Elektronik
CPCI 3HE RA 5Slot 32bit+
BUS673 Rev.BA

				2000	Date	Name	Title Hartmann Elektronik CPCI 3HE RA 5Slot 32bit+ BUS673 Rev.BA		
				Author	10.11.	Ruthardt			
				Check	10.11.	Ruthardt			
				DIN A4 M 1:1					
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			Number		Sheet
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Rev	Description	Date	Name				Device: HE-C33RA055--4		File: BUS673BA

[illegible][illegible][illegible][illegible][illegible][illegible]

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1

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RevDescription Date Name

2000 Date Name

Author 08.11. Ruthardt

Check 08.11. Ruthardt

DIN A4

M 1:1

HARTMANN ELEKTRONIK

MOTORSTRASSE 43

D-70499 STUTTGART

Device: HE-C33RA065--4 File: BUS672BA

Sheet of

Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Bottom View

Shrouds 1P1 - 6P1 on request

Busbar for +5V keying

Busbar for +3.3V keying

Pads Bottom Silkscreen Bottom

BUS672 Rev.BA CPCI 3HE RA 6Slot 32bit+ Hartmann Elektronik

1
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3

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C

Without geographic addressing on request
1

RevDescription
Date
Name

2000
Date
Name

Author
08.11.
Ruthardt

Check
08.11.
Ruthardt

DIN A4
M 1:1

HARTMANN ELEKTRONIK
MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Number

Sheet

of

RevDescription
Date
Name

2000
Date
Name

Author
08.11.
Ruthardt

Check
08.11.
Ruthardt

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M 1:1

HARTMANN ELEKTRONIK
MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
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CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Number

Sheet

of

RevDescription
Date
Name

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Date
Name

Author
08.11.
Ruthardt

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08.11.
Ruthardt

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M 1:1

HARTMANN ELEKTRONIK
MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Number

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of

RevDescription
Date
Name

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Date
Name

Author
08.11.
Ruthardt

Check
08.11.
Ruthardt

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M 1:1

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MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Number

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of

RevDescription
Date
Name

2000
Date
Name

Author
08.11.
Ruthardt

Check
08.11.
Ruthardt

DIN A4
M 1:1

HARTMANN ELEKTRONIK
MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Number

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of

RevDescription
Date
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Date
Name

Author
08.11.
Ruthardt

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08.11.
Ruthardt

DIN A4
M 1:1

HARTMANN ELEKTRONIK
MOTORSTRASSE 43
D-70499 STUTTGART

Device:
HE-C33RA065--4
File:
BUS672BA

Title
Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

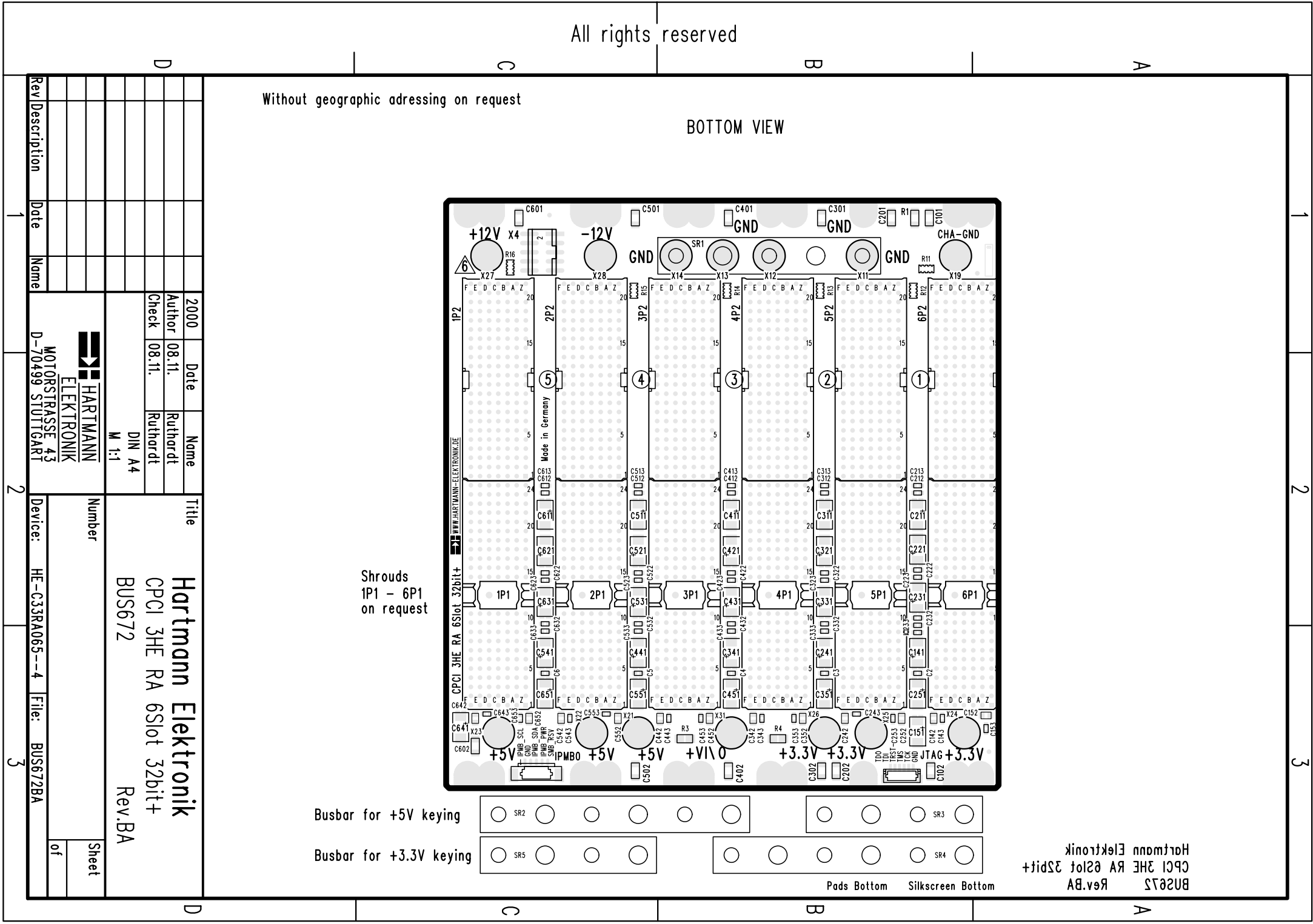
Rev.BA

Number

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of

RevDescription
Date
Name

[illegible]

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BOTTOM VIEW

Without geographic addressing on request

Shrouds
1P1 - 6P1
on request

Busbar for +5V keying

Busbar for +3.3V keying

Pads Bottom Silkscreen Bottom

Hartmann Elektronik
CPCI 3HE RA 6Slot 32bit+
Rev.BA

Rev.BA

CPCI 3HE RA 6Slot 32bit+

Rev.BA

Device: HE-C33RA06S--4 File: BUS672BA

Number

Title

Hartmann Elektronik
CPCI 3HE RA 6Slot 32bit+
BUS672 Rev.BA

Author 08.11. Ruthardt
Check 08.11. Ruthardt
DIN A4
M 1:1

Date Name

2000

RevDescription Date Name

1

2

3

A

B

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D

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2

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A

B

C

D

The diagram shows the bottom view of a CPCI 3HE RA 6Slot 32bit+ PCB. It features six vertical slots labeled 1P1 through 6P1. Each slot has a corresponding shroud (SR1-SR6) and a busbar for +5V and +3.3V keying. The board includes various components such as capacitors (C101-C601), resistors (R1-R16), and integrated circuits (IC1-IC6). Connectors X1-X6 are shown along the top edge, and X19-X27 along the bottom edge. The board is populated with numerous surface-mount components and has a detailed silkscreen layout.

Without geographic addressing on request

1 2 3

1 2 3

RevDescription Date Name

2000 Date Name

Author 08.11. Ruthardt

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DIN A4

M 1:1

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MOTORSTRASSE 43

D-70499 STUTTGART

Device: HE-C33RA065--4 File: BUS672BA

Sheet of

Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

TOP VIEW

BOTTOM VIEW

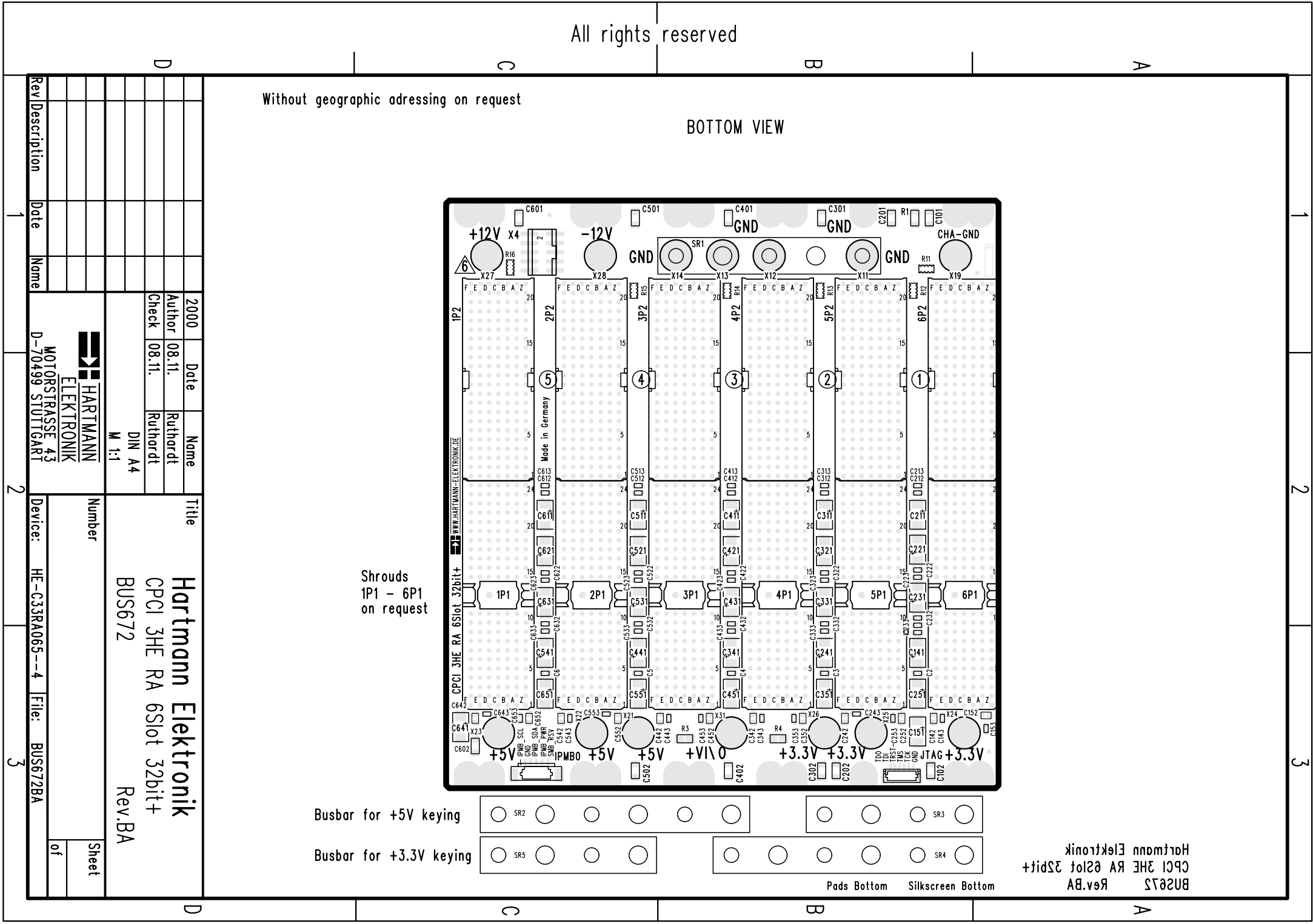
Shrouds 1P1 - 6P1 on request

Busbar for +5V keying

Busbar for +3.3V keying

Pads Bottom Silkscreen Bottom

BUS672 Rev.BA CPCI 3HE RA 6Slot 32bit+ Hartmann Elektronik



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1 2 3

1 2 3

RevDescription Date Name

2000 Date Name

Author 08.11. Ruthardt

Check 08.11. Ruthardt

DIN A4

M 1:1

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MOTORSTRASSE 43

D-70499 STUTTGART

Device: HE-C33RA065--4 File: BUS672BA

Sheet of

Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

TOP VIEW

BOTTOM VIEW

Shrouds 1P1 - 6P1 on request

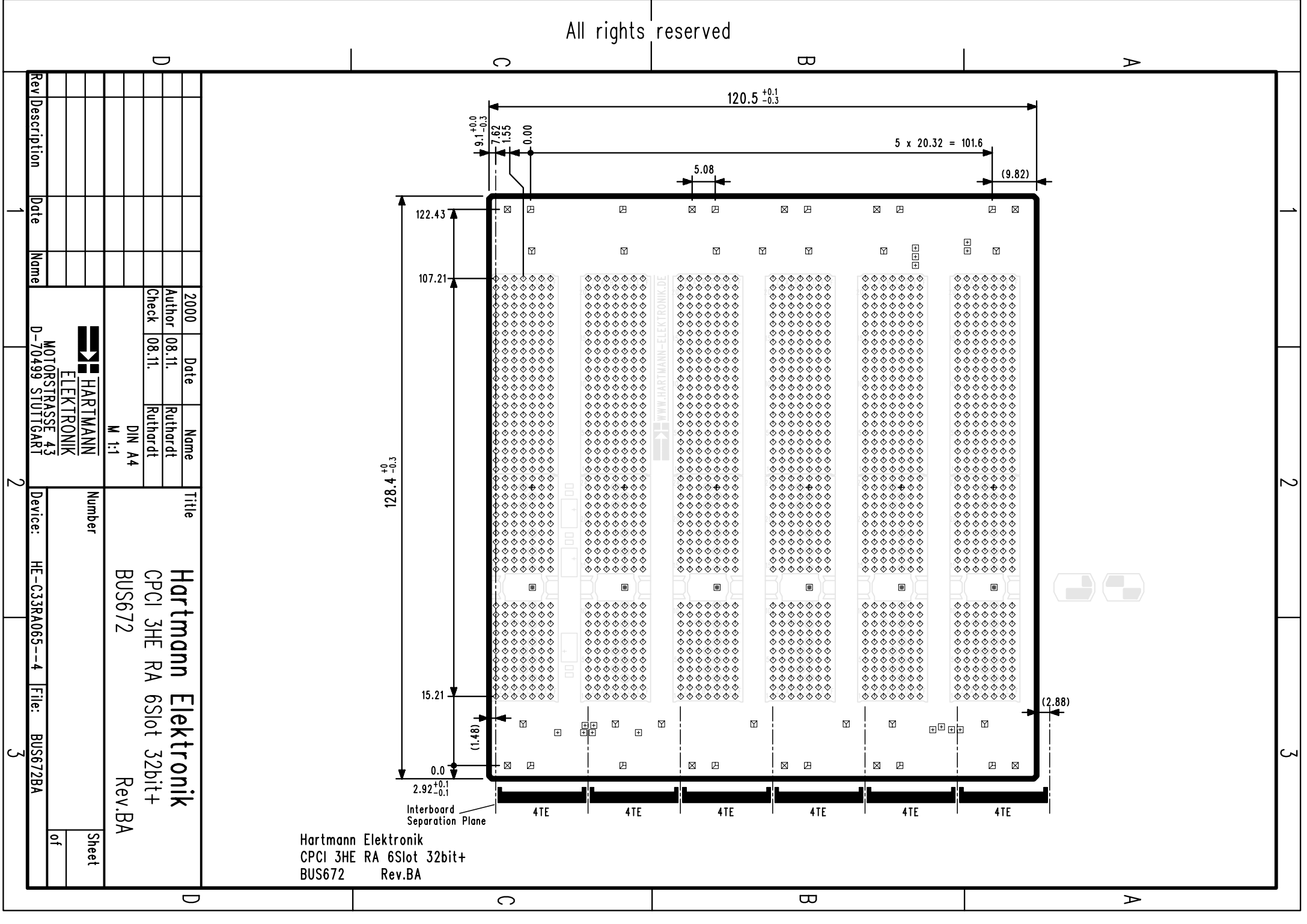
Busbar for +5V keying

Busbar for +3.3V keying

Pads Bottom Silkscreen Bottom

BUS672 Rev.BA CPCI 3HE RA 6slot 32bit+ Hartmann Elektronik

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120.5^{+0.1}_{-0.3}

5 x 20.32 = 101.6

(9.82)

5.08

122.43

107.21

15.21

0.0

2.92^{+0.1}_{-0.1}

Interboard Separation Plane

4TE

4TE

4TE

4TE

4TE

4TE

128.4⁺⁰_{-0.3}

9.1^{+0.0}_{-0.3}

7.62

1.55

0.00

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2000

08.11.

Ruthardt

Check

DIN A4

M 1:1

Number

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CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Rev Description

Date

Name

Device: HE-C33RA065--4

File: BUS672BA

Sheet

of

1

2

3

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120.5^{+0.1}_{-0.3}

5 x 20.32 = 101.6

(9.82)

5.08

122.43

107.21

15.21

0.0

2.92^{+0.1}_{-0.1}

Interboard Separation Plane

4TE

4TE

4TE

4TE

4TE

4TE

128.4⁺⁰_{-0.3}

9.1^{+0.0}_{-0.3}

7.62

1.55

0.00

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2000

08.11.

Ruthardt

Check

DIN A4

M 1:1

Number

Hartmann Elektronik

CPCI 3HE RA 6Slot 32bit+

BUS672

Rev.BA

Rev Description

Date

Name

Device: HE-C33RA065--4

File: BUS672BA

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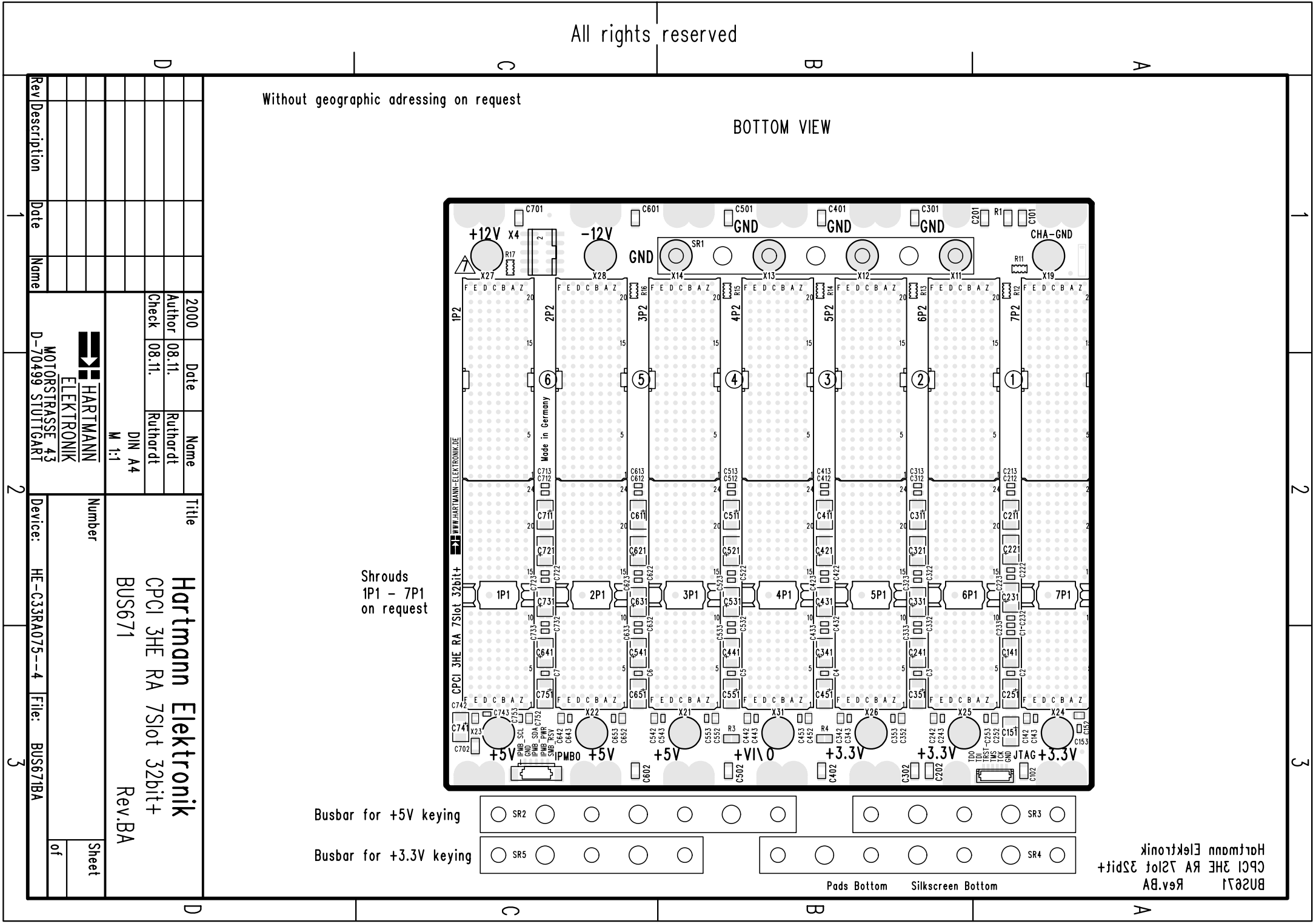
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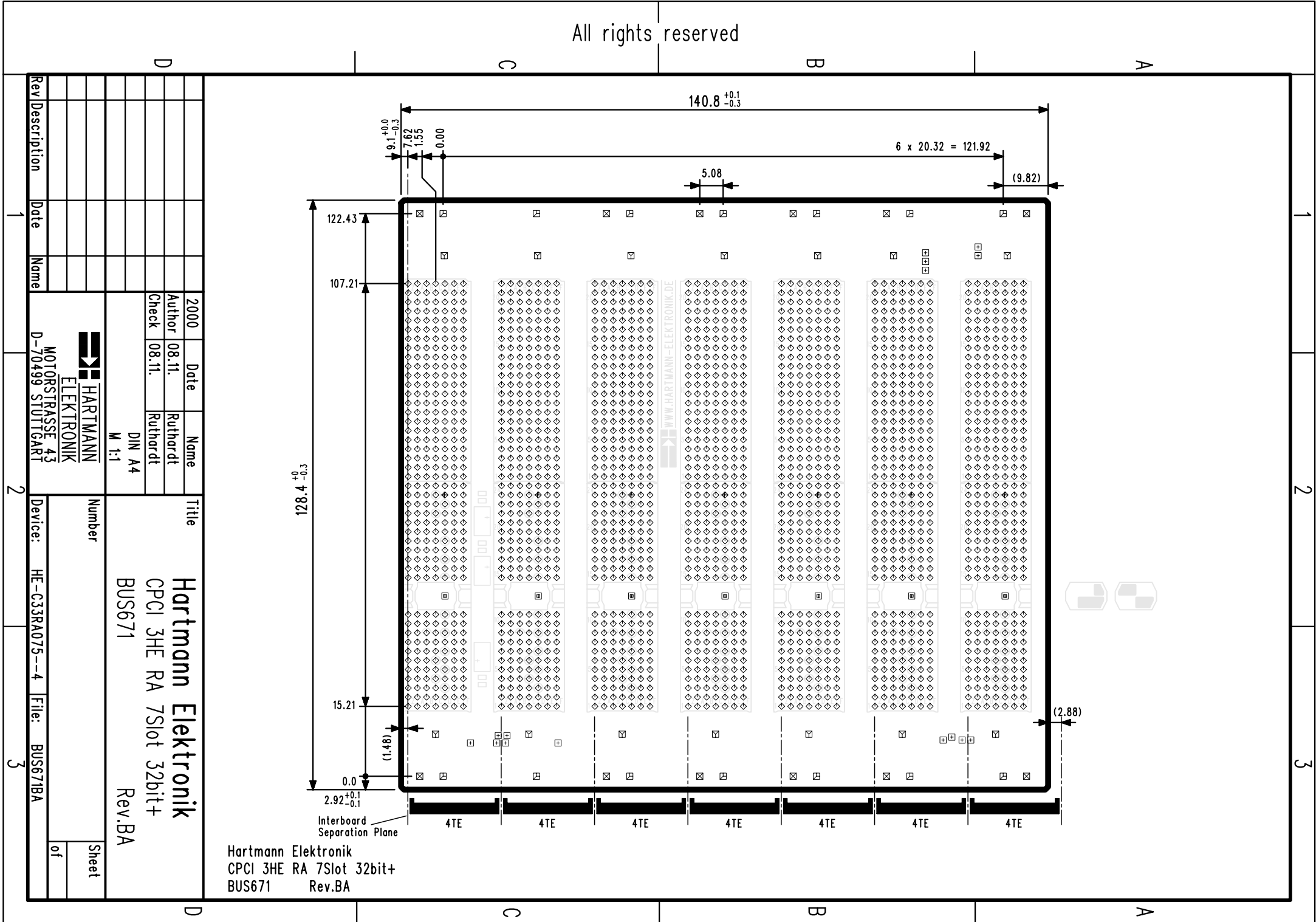
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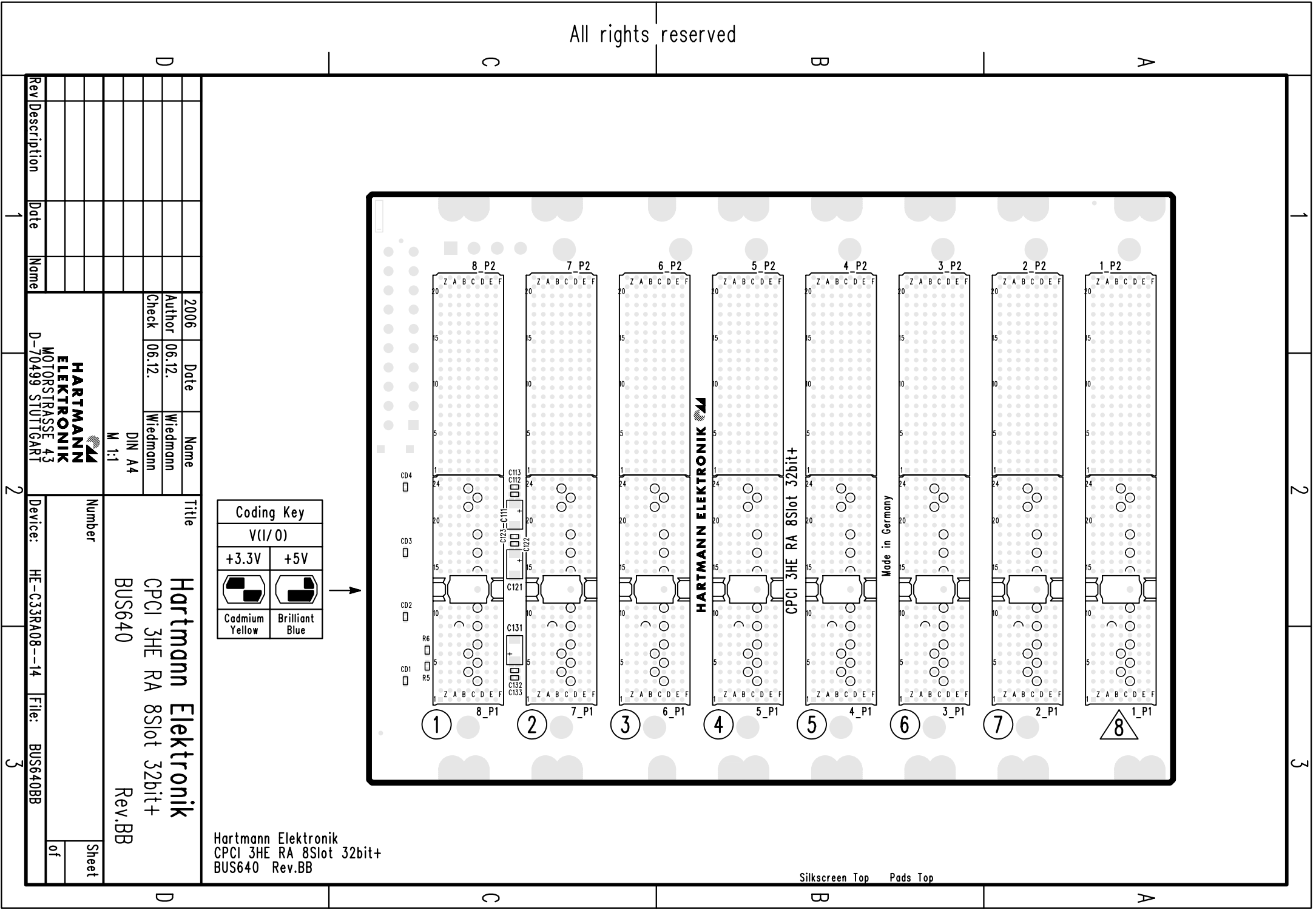
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Silkscreen Top
Pads Top

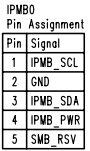
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Pin	Signal
1	GND
2	TCK
3	TMS
4	TRST-
5	TDI
6	TDO



Busbar $V(I/O) = 5V$

BU2640 Rev.BB
CPCI 3HE RA 8Slot 32bit+
Hartmann Elektronik

[illegible]

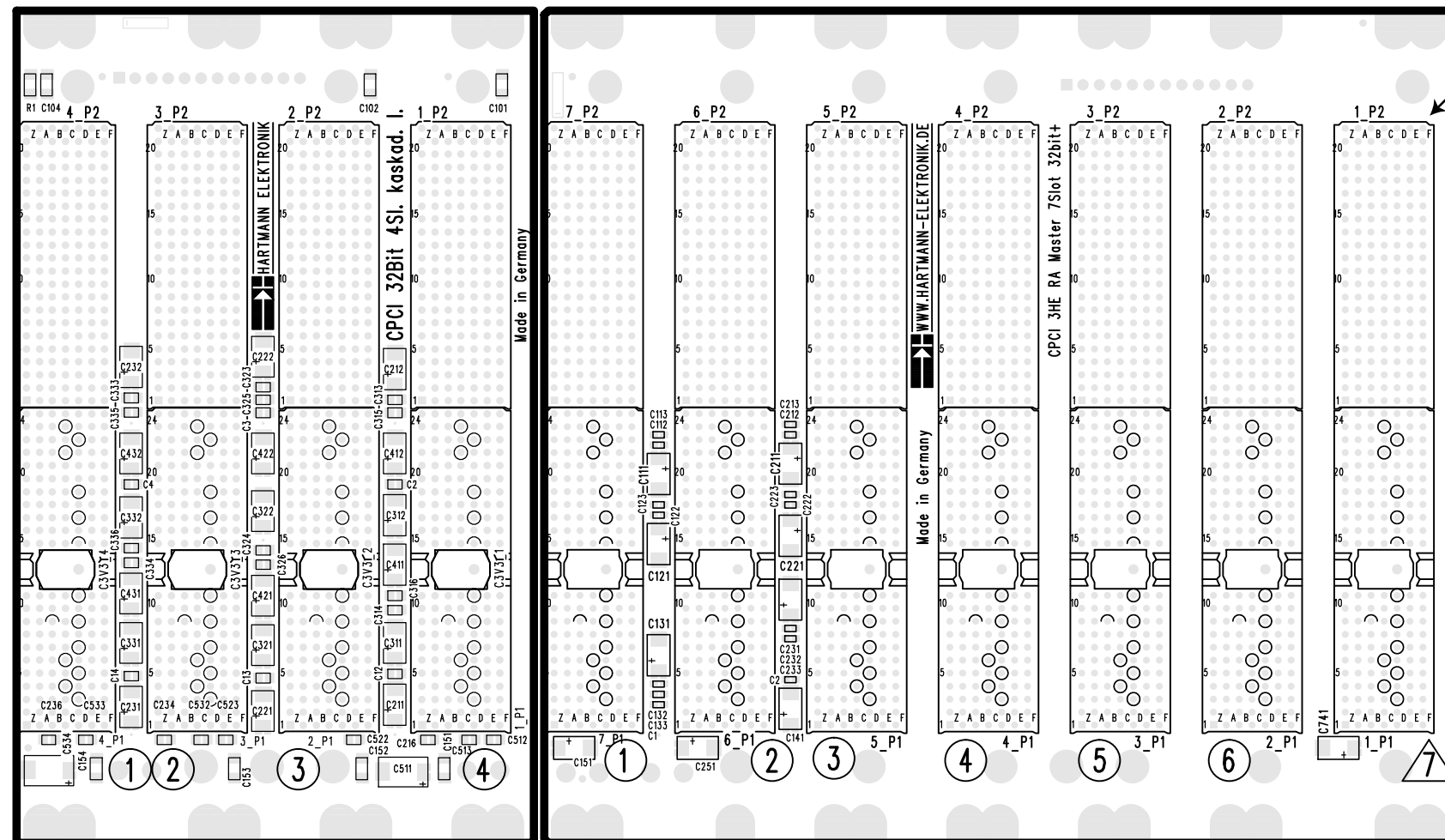
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Top view

Systemslot

Coding Key	
V(I/O)	
3,3V	5V
	
Cadmium Yellow	Brilliant Blue



				2000	Date	Name	CompactPCI® PICMG 2.0 R3.0 Backplane 3HE RA 11Slot 32bit 33MHz				
				Author	18.12.	Wiedmann					
				Check	18.12	Brosowski					
				DIN A3 M 1:1			Order No.: +5V: 33RA113514			Sheet 1	
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART						of 2	
Rev	Description	Date	Name				Device: BUS659BA+BUS654		File: HE-C33RA114-14		

A |

B

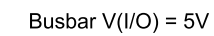
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C

C

D

D

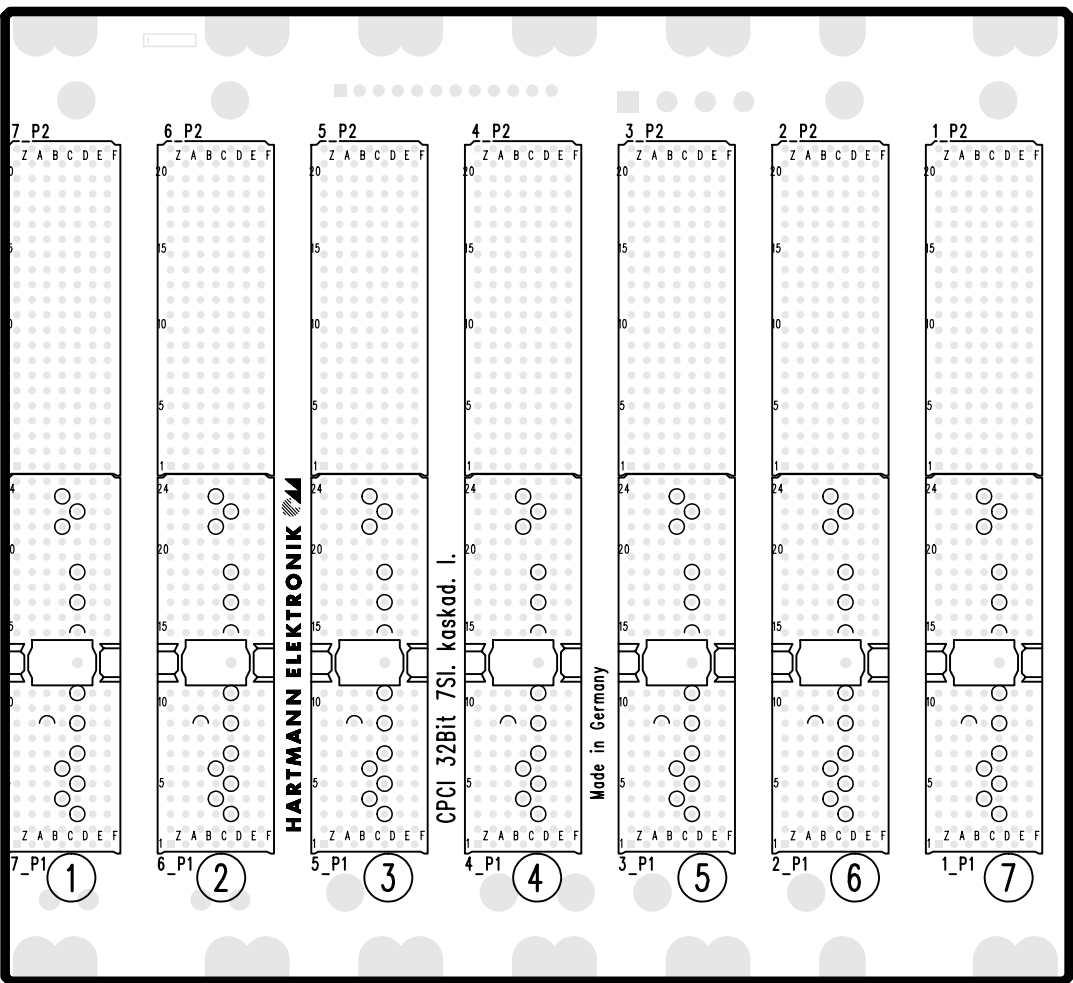


				2000	Date	Name	CompactPCI® PICMG 2.0 R3.0 Backplane 3HE RA 11Slot 32bit 33MHz
				Author	18.12.	Wiedmann	
				Check	18.12	Brosowski	
				DIN A3			
				M 1:1			
				 HARTMANN ELEKTRONIK MOTORSTRASSE 43 D-70499 STUTTGART			
Rev	Description	Date	Name	Order No.:			Sheet 2 of 2
				+5V: 33RA113514			Device: BUS659BA+BUS654

[illegible]

Coding Key	
V(I/O)	
+3.3V	+5V
	
Cadmium Yellow	Brilliant Blue

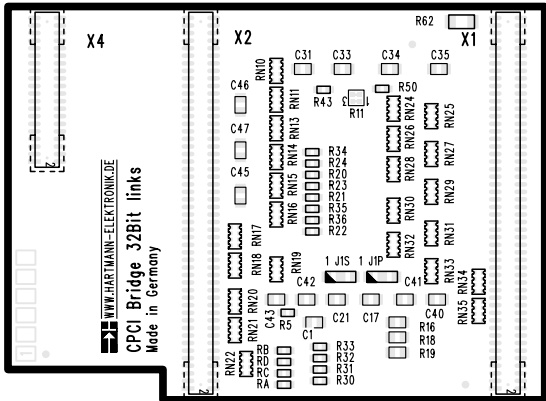
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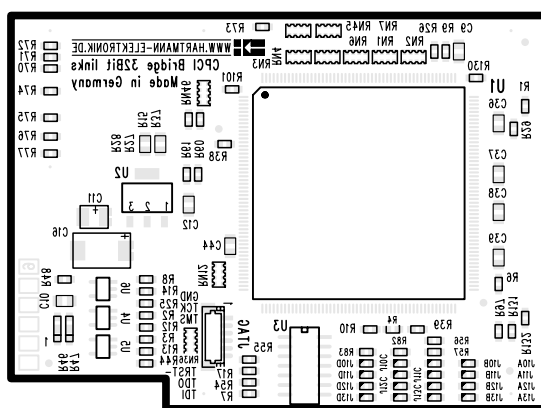


Hartmann Elektronik
CPCI 32Bit 7Sl. kaskad. I.
BUS651
Rev.BB

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				1	2	3																																																				
Alle Rechte vorbehalten	A											A																																														
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