

**6U VPX Power & GND
3 Slot BACKPLANE**
J4 Diff, J1-J3+J5-J6 Univ.

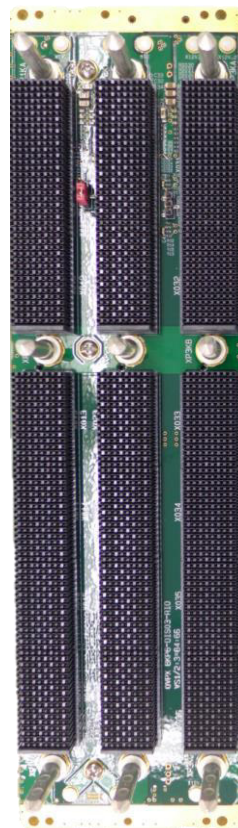
VITA 46
VITA 65



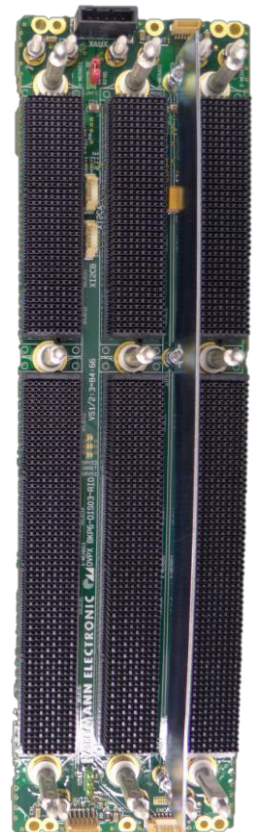
Key Features:

- **Our VPX Power & Ground Backplanes - the development tool for VPX systems of your first choice**
- Compliant to VITA 46.0 baseline specification
- Compliant to VITA 65
- 3 Slots VPX with J4 differential and J1-J3 + J5-J6 Universal
- with RTM for all slots and pins
- M3 studs for power entry
- PCB size 261.85 mm x 73.05 mm x 5.4 mm
- Flexible keying and alignment mechanism
- with geographical address pins
- Reference clock
- Auxiliary clock
- System Reset
- With JTAG connector
- System Management Interface on the backplane (I2CA, I2CB)
- Non-Volatile Memory Read Only signal set by Jumper BR1
- Battery backup option setting by Jumper XBAT. Vbat external or connected to 3.3 VAUX.
- Max. Input current per backplane
VS1/VS2:VS3 = 42A : 66A
- Operating temperature: -40°C - +85°C
- Storage temperature: -55°C - +85°C
- Flammability rating: UL94-V0
- Custom assembly or modification on request

Front side



Back side



Order number: B196300010

Order number: B196300060 (B196300010+Conformal coating)

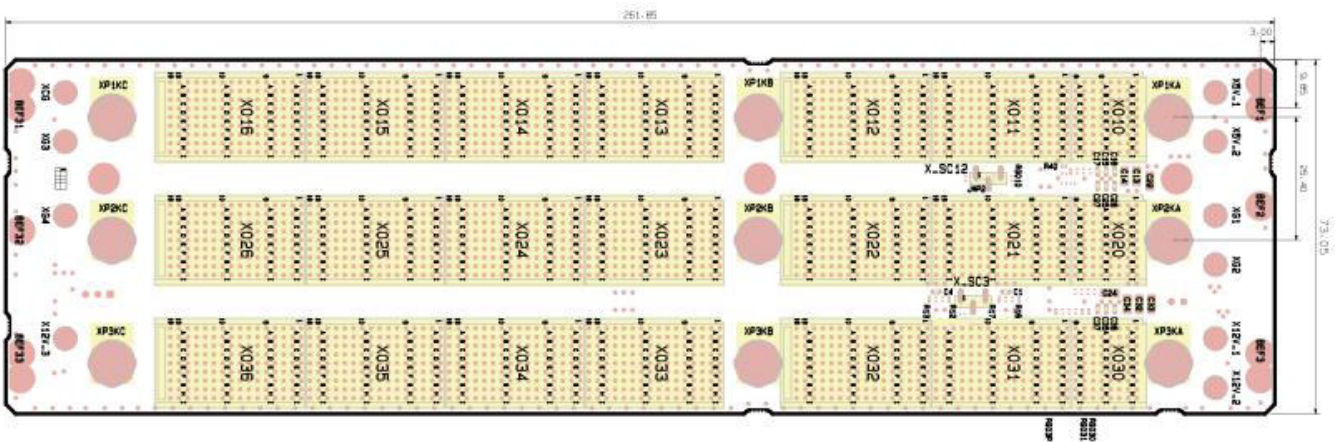
6U VPX Power & GND
 3 Slot BACKPLANE
 J4 Diff, J1-J3+J5-J6 Univ.

VITA 46
 VITA 65



1) Drawings

Front side



Back side



6U VPX Power & GND
3 Slot BACKPLANE
J4 Diff, J1-J3+J5-J6 Univ.

VITA 46
VITA 65



2) Pin Assignment

Pin Assignment VPX J0 (Utility Connector)

	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	Vs1	Vs1	Vs1	Vs1	No Pad*	Vs2	Vs2	Vs2	Vs2
2	Vs1	Vs1	Vs1	Vs1	No Pad*	Vs2	Vs2	Vs2	Vs2
3	Vs3	Vs3	Vs3	Vs3	No Pad*	Vs3	Vs3	Vs3	Vs3
4	GND	SM2	SM3	GND	-12V_Aux	GND	SYSRESET*	NVMRO	GND
5	GND	GAP*	GA4*	GND	3.3V_Aux	GND	SM0	SM1	GND
6	GND	GA3*	GA2*	GND	+12V_Aux	GND	GA1*	GA0*	GND
7	TCK	GND	GND	TDO	TDI	GND	GND	TMS	TRST*
8	GND	REF_CLK-	REF_CLK+	GND	GND	AUX_CLK-	AUX_CLK+	GND	GND

Vs1/Vs2=12V, Vs3=5V

Pin Assignment J1-J3, J5-J6

This connector is all User Defined pins. See Section VITA 65 6.3.3 for requirements and pin assignments concerning connectors that are all User Defined.

Backplane Jn	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	UD	UD	UD	UD	UD	GND	UD	UD	UD
2	GND	UD	UD	GND	UD	UD	UD	UD	GND
3	UD	UD	UD	UD	UD	GND	UD	UD	UD
4	GND	UD	UD	GND	UD	UD	UD	UD	GND
5	UD	UD	UD	UD	UD	GND	UD	UD	UD
6	GND	UD	UD	GND	UD	UD	UD	UD	GND
7	UD	UD	UD	UD	UD	GND	UD	UD	UD
8	GND	UD	UD	GND	UD	UD	UD	UD	GND
9	UD	UD	UD	UD	UD	GND	UD	UD	UD
10	GND	UD	UD	GND	UD	UD	UD	UD	GND
11	UD	UD	UD	UD	UD	GND	UD	UD	UD
12	GND	UD	UD	GND	UD	UD	UD	UD	GND
13	UD	UD	UD	UD	UD	GND	UD	UD	UD
14	GND	UD	UD	GND	UD	UD	UD	UD	GND
15	UD	UD	UD	UD	UD	GND	UD	UD	UD
16	GND	UD	UD	GND	UD	UD	UD	UD	GND

6U VPX Power & GND
3 Slot BACKPLANE
J4 Diff, J1-J3+J5-J6 Univ.

VITA 46
VITA 65



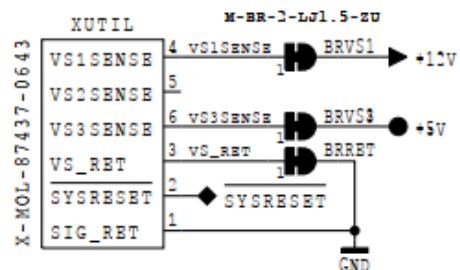
Pin Assignment P4 & J4

Plug-In Mod Pn	Row G	Row F	Row E		Row D	Row C	Row B		Row A
			Even	Odd			Even	Odd	
Backplane Jn	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
2	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
3	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
4	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
5	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
6	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
7	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
8	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
9	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
10	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
11	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
12	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
13	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
14	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND
15	UD	GND	GND-Jn	UD	UD	GND	GND-Jn	UD	UD
16	GND	UD	UD	GND-Jn	GND	UD	UD	GND-Jn	GND

3) Current Capability:

- +12V 42 A
- +12V 42 A
- +5V 66 A
- -12V AUX 3 A
- +12V AUX 3 A
- +3.3V AUX 3 A

4) UTILITY (Connector XUTIL)



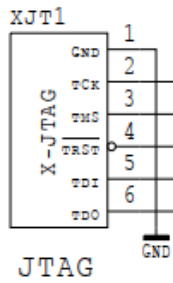
Connector Molex p.n. 87437-0643

6U VPX Power & GND
3 Slot BACKPLANE
J4 Diff, J1-J3+J5-J6 Univ.

VITA 46
VITA 65



5) JTAG (Connector XJT1)



Connector J.S.T.
 BM06B-SRSS-TB(LF)(SN)

6) SYSCON

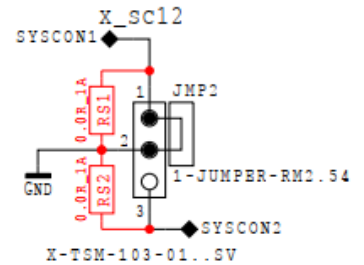
By setting the signal Syscon to GND the system slot is defined. In general the system slot is slot 1.

We offer 2 options for setting:

- Jumper (standard)
- 0 Ohm Resistor for rugged applications

X_SC

1	SYSCON1
2	GND
3	SYSCON2



7) I2C Connector

There are 2 connectors for system-management I2CA and I2CB.

For customer specific board assembly Zero-Ohm resistors available.

Usable voltages for I2C are 3.3V-AUX

I2CA

1	I2CA_SCL
2	GND
3	I2CA_SDA
4	I2CA_PWR
5	NC

I2CB

1	I2CB_SCL
2	GND
3	I2CB_SDA
4	I2CB_PWR
5	NC

Connector Molex p.n. 53398-0571

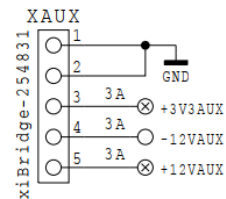
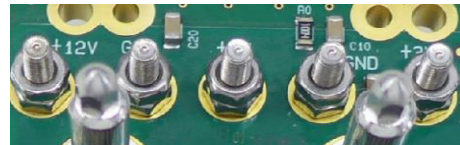
6U VPX Power & GND
3 Slot BACKPLANE
J4 Diff, J1-J3+J5-J6 Univ.

VITA 46
VITA 65



8) Power Connections M3 screws

The main operating voltages and GND are supplied with M3 screw. The auxiliary operating voltages are supplied via 5 pole MaxiBridge plug connector. Optimal daughter board supply and trouble-free operation are ensured by the arrangement of the feed modules on the backplane.



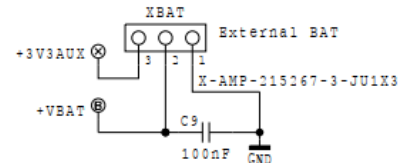
Connector Erni p.n. 254831

9) XBAT

Normally a battery voltage with approximately 3V is available at Pin VBAT of connector VPX-J1. The voltage is externally accessible with connector XBAT, Pin2 or internally using 3.3V_AUX by setting a Jumper between Pin2 and Pin3.

VBAT X5

1	GND
2	+VBAT
3	+3.3V_AUX

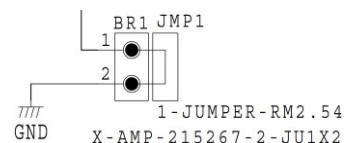


10) NVMRO

If Jumper BR1 is closed NVRMO is set to memory writeable.

BR1

1	NVMRO
2	GND



Germany

Hartmann Electronic GmbH
 Phone: +49 711 13 98 90
 Fax: +49 711 8 66 11 91
vertrieb.he@kontron.com
www.hartmann-electronic.com

USA

Kontron
 Fabian Hemmann
 Phone: +1 937-324-2420
 Mobile: +1 937 346 7878
fabian.hemmann@us.kontron.com
www.hartmann-electronic.com

France

Kontron Modular Computers S.A.S.
 Serge Pichat
 Phone: +33 (0)9 66 44 03 15
 Mobile: +33 (0)6 82 62 16 00
Serge.pichat@kontron.com
www.hartmann-electronic.com

India

Hartmann Electronic GmbH
 Vivek Deshpande
 Phone: +1 91 20 66 74 51 23
Vivek.Deshpande@kontron.com
www.hartmann-electronic.com