


<p><b>6U VPX Power &amp; GND 1 Slot BACKPLANE with Coaxial Extension</b></p>	<p><b>VITA 46 VITA 65 VITA 67.2</b></p>	
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**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 and VITA 67.2
- 1 Slot VPX with coax module in J2 and J6
- with RTM for all slots and pins
- M3 studs for power entry
- PCB size 261.85 mm x 29.87mm 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 = 10A : 10A
- Operating temperature: -40°C - +85°C
- Storage temperature: -55°C - +85°C
- Flammability rating: UL94-V0
- Custom assembly or modification on request
  
- **Order number: B196100030**

Front side



Back side





**6U VPX Power & GND  
1 Slot BACKPLANE  
with Coaxial Extension**

**VITA 46  
VITA 65  
VITA 67.2**



### 3) 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=12V, VS2=3.3V, VS3=5V

#### Pin Assignment J1 & J3 – J5

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

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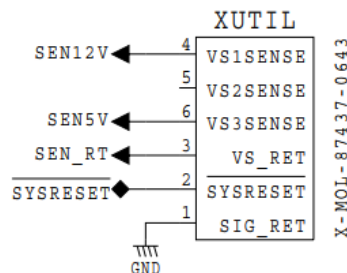
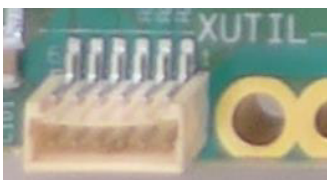
### Pin Assignment P4 & J4

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

### 4) Current Capability:

- +12V                                    10 A
- +12V                                    10 A
- +5V                                      10 A
- -12V AUX                              2 A
- +12V AUX                              2 A
- +3.3V AUX                            2 A

### 5) UTILITY (Connector XUTIL)



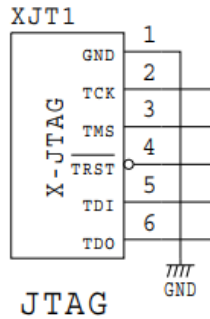
Connector Molex Art. Nr. 87437-0643

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### 6) JTAG (Connector XJT1)



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

### 7) SYSCON

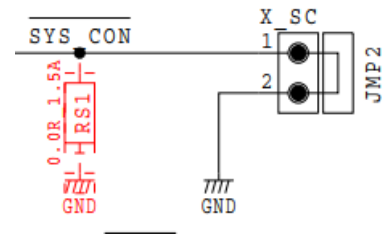
By setting the signal Syscon to GND the system slot is defined. In general the system slot is slot 1.

We offer 2 options for setting:

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

X\_SC

1	SYSCON1
2	GND
3	SYSCON2



### 8) 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 Art. Nr. 53398-0571

### 9) Power Connections M3 screws

The main operating voltages and GND are supplied with M3 screw.



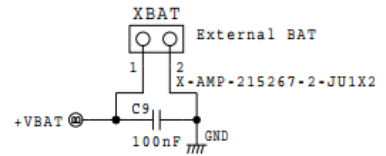
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### 10) XBAT

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

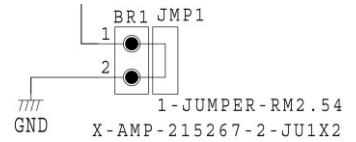


### 11) NVMRO

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

#### BR1

1	NVMRO
2	GND



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