

Open VPX 3U 3Slot Backplane

Features

- Compliant to VITA 46.0 baseline specification
- OPEN VITA 65 Specification
- Backplane Profile: BKP3-CEN03-15.2.9-n
- 2 x Fat Pipe(Star) Data Plane
- 3 Slots VPX, 1 Payload Slot, 2 Peripheral Slot
- M3 studs power entry
- Reference clock
- Aux clock
- System Management Interface (I2CA, I2CB)
- Input current per backplane

VS1 = 28A

VS2 = 28A

VS3 = 30A

- Order Number: B203302001

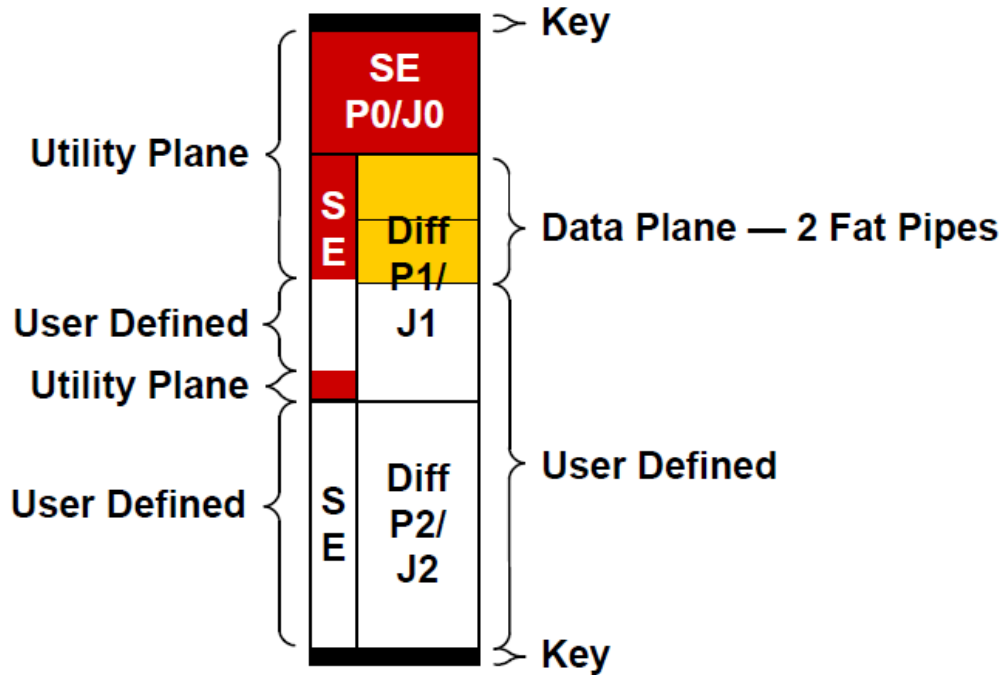
Board Specifications

- PCB size: 128.5 mm x 76.96 mm x 5.4 mm
- 5 HP (25.40 mm) from slot to slot
- Operating temperature: -40° - +85°C
- Storage temperature: -55°C - +85°C

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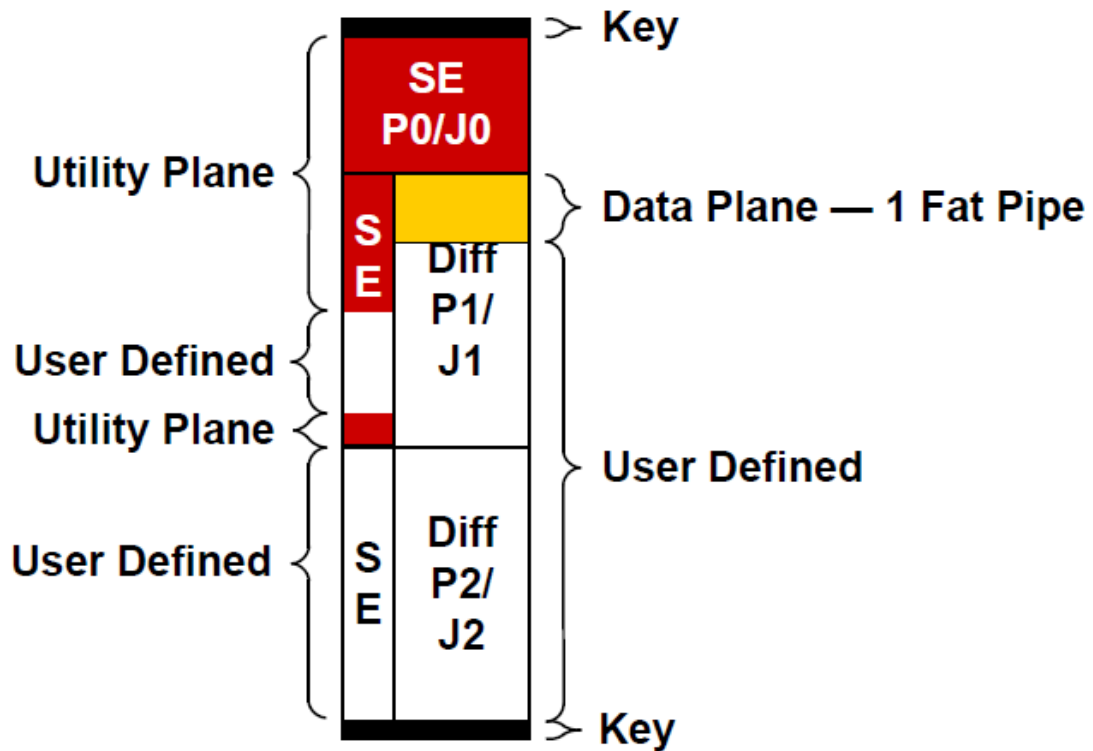
Slot Profiles

■ Slot 1: Payload Slot (SLT3-PAY-2F-14.2.7)



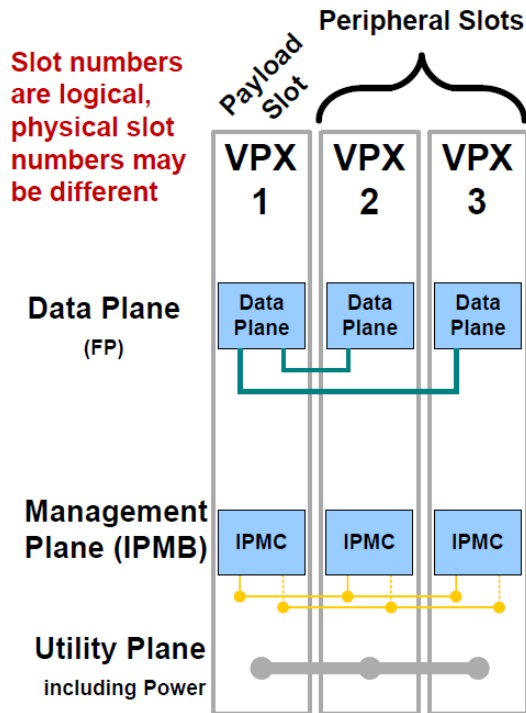
■ Slot 2: Peripheral Slot (SLT3-PER-1F-14.3.2)

Slot 3: Peripheral Slot (SLT3-PER-1F-14.3.2)

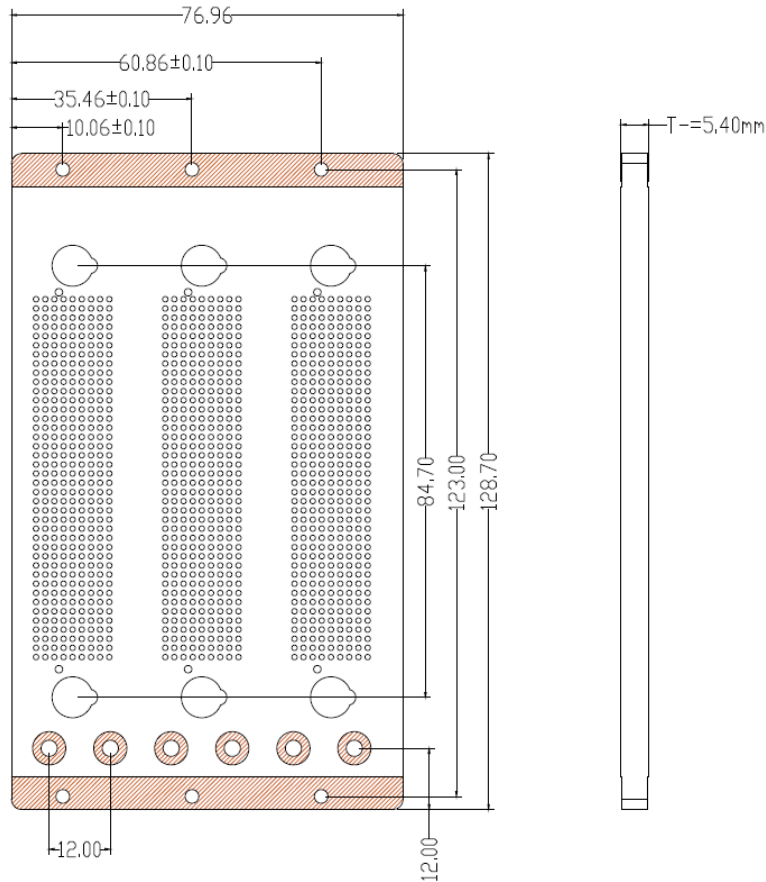


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Backplane Topology



Mechanical Draw



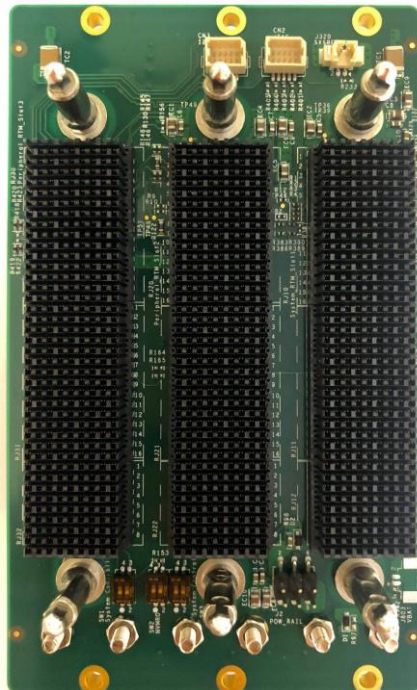
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Photos

✧ Front Side



✧ Rear Side



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Pin Assignment

Utility Plane Signals on J0 VS1=12V , VS2=3.3V , VS3=5V

	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

Payload Slot Profile SLT3-PAY-2F-14.2.7 — P1 & J1

Plug-In Module P1	Row G	Row F	Row E		Row D	Row C	Row B		Row A
			Even	Odd			Even	Odd	
			Row g	Row f			Row e	Row d	
Bplane J1	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	GD iscrete1	GND	GND-J1	DP 01-T 0-	DP 01-T 0+	GND	GND-J1	DP 01-R 0-	DP 01-R 0+
2	GND	DP 01-T 1-	DP01-T1+	GND-J1	GND	DP 01-R 1-	DP 01-R 1+	GND-J1	GND
3	P 1-VB A T	GND	GND-J1	DP 01-T 2-	DP 01-T 2+	GND	GND-J1	DP 01-R 2-	DP 01-R 2+
4	GND	DP 01-T 3-	DP01-T3+	GND-J1	GND	DP 01-R 3-	DP 01-R 3+	GND-J1	GND
5	SYS_C ON *	GND	GND-J1	DP 02-T 0-	DP 02-T 0+	GND	GND-J1	DP 02-R 0-	DP 02-R 0+
6	GND	DP 02-T 1-	DP02-T1+	GND-J1	GND	DP 02-R 1-	DP 02-R 1+	GND-J1	GND
7	R eserved	GND	GND-J1	DP 02-T 2-	DP 02-T 2+	GND	GND-J1	DP 02-R 2-	DP 02-R 2+
8	GND	DP 02-T 3-	DP02-T3+	GND-J1	GND	DP 02-R 3-	DP 02-R 3+	GND-J1	GND
9	UD	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
10	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
11	UD	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
12	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
13	UD	GND	GND-J1	UD	DP 04-T 0+	GND	GND-J1	UD	UD
14	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
15	Maskable	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
16	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND

Payload Slot Profile SLT3-PAY-2F-14.2.7 — P2 & J2

Plug-In Module P2	Row G	Row F	Row E		Row D	Row C	Row B		Row A
			Even	Odd			Even	Odd	
			Row g	Row f			Row e	Row d	
Bplane J2	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	SEwafer1	GND	GND-J2	LN0-TD-	LN0-TD+	GND	GND-J2	LN0-RD-	LN0-RD+
2	GND	LN1-TD-	LN1-TD+	GND-J2	GND	LN1-RD-	LN1-RD+	GND-J2	GND
3	SEwafer3	GND	GND-J2	LN2-TD-	LN2-TD+	GND	GND-J2	LN2-RD-	LN2-RD+
4	GND	LN3-TD-	LN3-TD+	GND-J2	GND	LN3-RD-	LN3-RD+	GND-J2	GND
5	SEwafer5	GND	GND-J2	LN4-TD-	LN4-TD+	GND	GND-J2	LN4-RD-	LN4-RD+
6	GND	LN5-TD-	LN5-TD+	GND-J2	GND	LN5-RD-	LN5-RD+	GND-J2	GND
7	SEwafer7	GND	GND-J2	LN6-TD-	LN6-TD+	GND	GND-J2	LN6-RD-	LN6-RD+
8	GND	LN7-TD-	LN7-TD+	GND-J2	GND	LN7-RD-	LN7-RD+	GND-J2	GND
9	SEwafer9	GND	GND-J2	LN8-TD-	LN8-TD+	GND	GND-J2	LN8-RD-	LN8-RD+
10	GND	LN9-TD-	LN9-TD+	GND-J2	GND	LN9-RD-	LN9-RD+	GND-J2	GND
11	SEwafer11	GND	GND-J2	LN10-TD-	LN10-TD+	GND	GND-J2	LN10-RD-	LN10-RD+
12	GND	LN11-TD-	LN11-TD+	GND-J2	GND	LN11-RD-	LN11-RD+	GND-J2	GND
13	SEwafer13	GND	GND-J2	LN12-TD-	LN12-TD+	GND	GND-J2	LN12-RD-	LN12-RD+
14	GND	LN13-TD-	LN13-TD+	GND-J2	GND	LN13-RD-	LN13-RD+	GND-J2	GND
15	SEwafer15	GND	GND-J2	LN14-TD-	LN14-TD+	GND	GND-J2	LN14-RD-	LN14-RD+
16	GND	LN15-TD-	LN15-TD+	GND-J2	GND	LN15-RD-	LN15-RD+	GND-J2	GND

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Payload Slot Profile SLT3-PER-1F-14.3.2 — P1 & J1

Plug-In Module P1	Row G	Row F	Row E		Row D	Row C	Row B		Row A
			Even	Odd			Even	Odd	
Bplane J1	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	GDiscrete1	GND	GND-J1	DP01-T0-	DP01-T0+	GND	GND-J1	DP01-R0-	DP01-R0+
2	GND	DP01-T1-	DP01-T1+	GND-J1	GND	DP01-R1-	DP01-R1+	GND-J1	GND
3	P1-VBAT	GND	GND-J1	DP01-T2-	DP01-T2+	GND	GND-J1	DP01-R2-	DP01-R2+
4	GND	DP01-T3-	DP01-T3+	GND-J1	GND	DP01-R3-	DP01-R3+	GND-J1	GND
5	SYS_CON*	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
6	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
7	Reserved	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
8	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
9	UD	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
10	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
11	UD	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
12	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
13	UD	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
14	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND
15	Maskable Reset*	GND	GND-J1	UD	UD	GND	GND-J1	UD	UD
16	GND	UD	UD	GND-J1	GND	UD	UD	GND-J1	GND


Payload Slot Profile SLT3-PER-1F-14.3.2 — P2 & J2

Plug-In Module P2	Row G	Row F	Row E		Row D	Row C	Row B		Row A
			Even	Odd			Even	Odd	
Bplane J2	Row i	Row h	Row g	Row f	Row e	Row d	Row c	Row b	Row a
1	SEwafer1	GND	GND-J2	LN0-TD-	LN0-TD+	GND	GND-J2	LN0-RD-	LN0-RD+
2	GND	LN1-TD-	LN1-TD+	GND-J2	GND	LN1-RD-	LN1-RD+	GND-J2	GND
3	SEwafer3	GND	GND-J2	LN2-TD-	LN2-TD+	GND	GND-J2	LN2-RD-	LN2-RD+
4	GND	LN3-TD-	LN3-TD+	GND-J2	GND	LN3-RD-	LN3-RD+	GND-J2	GND
5	SEwafer5	GND	GND-J2	LN4-TD-	LN4-TD+	GND	GND-J2	LN4-RD-	LN4-RD+
6	GND	LN5-TD-	LN5-TD+	GND-J2	GND	LN5-RD-	LN5-RD+	GND-J2	GND
7	SEwafer7	GND	GND-J2	LN6-TD-	LN6-TD+	GND	GND-J2	LN6-RD-	LN6-RD+
8	GND	LN7-TD-	LN7-TD+	GND-J2	GND	LN7-RD-	LN7-RD+	GND-J2	GND
9	SEwafer9	GND	GND-J2	LN8-TD-	LN8-TD+	GND	GND-J2	LN8-RD-	LN8-RD+
10	GND	LN9-TD-	LN9-TD+	GND-J2	GND	LN9-RD-	LN9-RD+	GND-J2	GND
11	SEwafer11	GND	GND-J2	LN10-TD-	LN10-TD+	GND	GND-J2	LN10-RD-	LN10-RD+
12	GND	LN11-TD-	LN11-TD+	GND-J2	GND	LN11-RD-	LN11-RD+	GND-J2	GND
13	SEwafer13	GND	GND-J2	LN12-TD-	LN12-TD+	GND	GND-J2	LN12-RD-	LN12-RD+
14	GND	LN13-TD-	LN13-TD+	GND-J2	GND	LN13-RD-	LN13-RD+	GND-J2	GND
15	SEwafer15	GND	GND-J2	LN14-TD-	LN14-TD+	GND	GND-J2	LN14-RD-	LN14-RD+
16	GND	LN15-TD-	LN15-TD+	GND-J2	GND	LN15-RD-	LN15-RD+	GND-J2	GND

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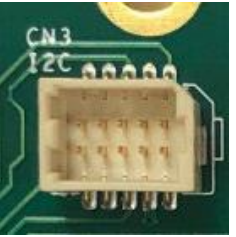
JTAG

Position	Pin Number	Description
CN2	1	3V3_AUX
	2	TMS
	3	GND
	4	TCK
	5	GND
	6	TDO
	7	GND
	8	TDI
	9	GND
	10	TRST




I2C Connector

Position	Pin Number	Description
CN3	1	I2C_A_CLK
	2	I2C_B_CLK
	3	GND
	4	GND
	5	I2C_A_SDA
	6	I2C_B_SDA
	7	3V3_AUX
	8	3V3_AUX
	9	GND
	10	GND





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NVMRO


Position	Pin Number	Description	
SW2	1	Empty	
	2	GND	
	3	NVMRO	
	4	Empty	

SYSCON

Position	Pin Number	Description	
SW1	1	GND	
	2	GND	
	3	Slot3_SYSCON	
	4	Empty	


Position	Pin Number	Description	
SW3	1	GND	
	2	GND	
	3	Slot1_SYSCON	
	4	Slot2_SYSCON	

SYS Reset

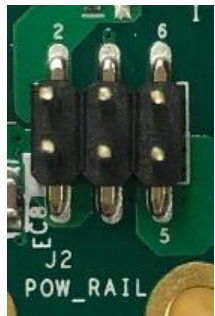
Position	Pin Number	Description	
J320	1	SYSRESET	
	2	GND	
	3	GND	
	4	GND	

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Power Stubs M3

Position	Pin Number	Description	
Stubs M3	H9	+12V	
	H10	3V3_AUX	
	H11	+3.3V	
	H12	GND	
	H13	+5V	
	H14	GND	

Power Rail

Position	Pin Number	Description	
J2	1	P12V_AUX	
	2	VBAT	
	3	GND	
	4	VBAT_GND	
	5	N12V_AUX	
	6	Empty	