

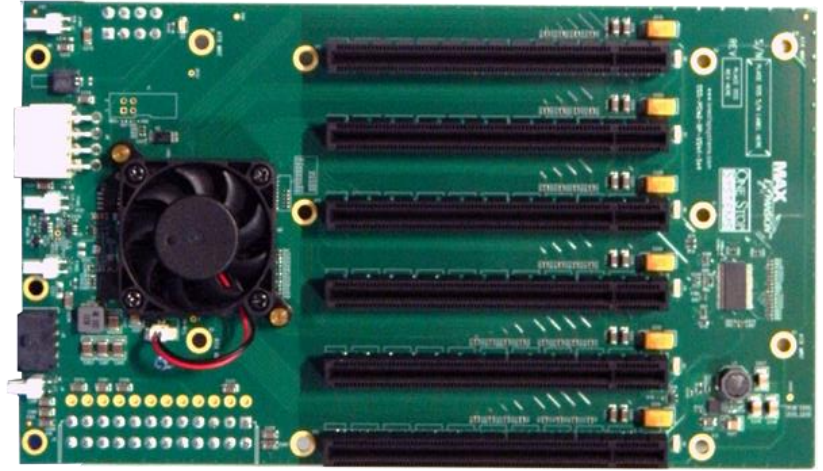
Expansion Backplane, 5 PCIe x4 slots (420)

Requires an OSS target adapter card in the host interface card slot. Cable and adapter card sold separately.

PN: OSS-BP-420

Features

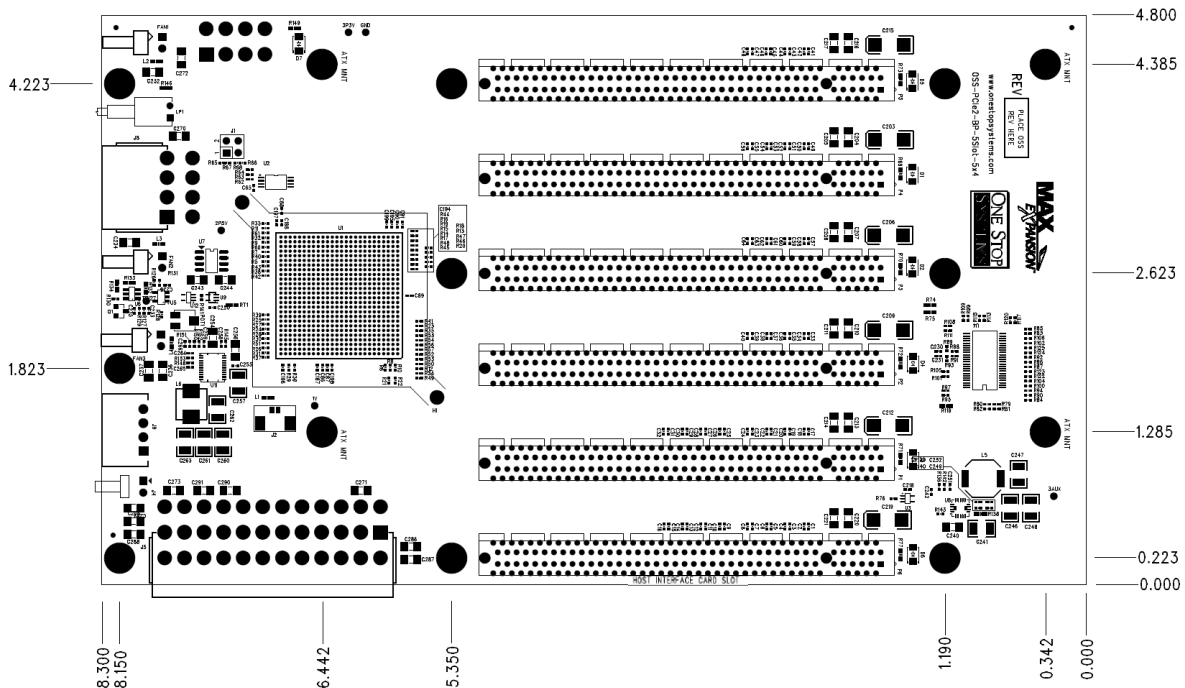
- One OSS PCIe x16 3.0 target slot for OSS target cable adapter
- Five PCIe x4 2.0 expansion slots (x16 mechanical)
- ATX power input
- Thunderbolt power connector
- Fan speed controller



Specifications

Dimension (H x L):	8.3" x 4.8"
Power:	ATX
Slots:	1 OSS target slot (for OSS target cable adapter only) 5 PCIe x4 2.0 electrical; x16 mechanical slots

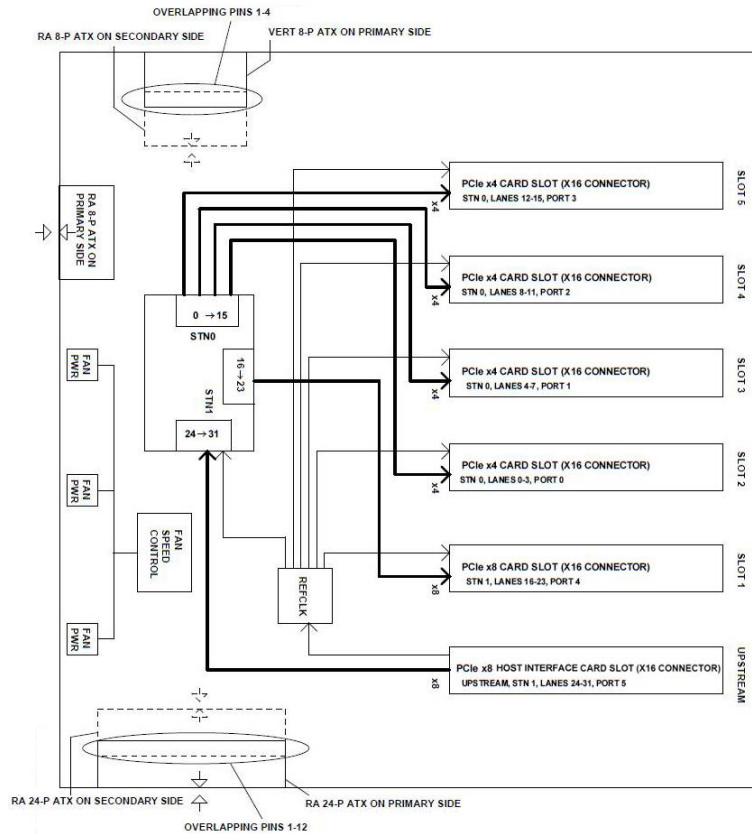
Dimensional Drawing



NOTE: The 420 backplane allows variable speed control on the FAN1 connector using a thermocouple controlled circuit optimized for thermals of the OSS CUBE™ family of products. OEMs should use the other fan connectors (FAN2 & FAN3) for standard 12V power and ground connections.

NOTE: The power ON connector is only used in Thunderbolt cable configurations. Forcing the power ON in PCIe configurations using the header connector on the backplane may cause the expansion backplane to not enumerate properly with the host system.

Block Diagram



Connector Pin-Outs

Connector	Definition
J1	I2C Interface
J3, J5, J6	Input Power
J8	Output Power
J9	Thunderbolt Power
J10, J11	Power Standby LED

J1 –I2C Interface Connector (3M P/N: 929710-10-02-RK)

Pin	Definition	Pin	Definition
1	SMCLK	2	GND
3	SMDAT	4	NC

J4 – Force Power On (Molex P/N: 22-05-3021)

Pin	Definition
1	PWR_ON#
2	GND

DESIGN NOTE: THE ATX PS USED MUST PROVIDE AT LEAST 2A ON VDD5VAUX

J3, J5 – Input Power (Molex P/N:87427-2402)

Pin	Definition	Pin	Definition
1	+3.3V	13	+3.3V
2	+3.3V	14	-12V
3	GND	15	GND
4	+5V	16	PS_ON#
5	GND	17	GND
6	+5V	18	GND
7	GND	19	GND
8	PWRON	20	NC
9	+5VSB	21	+5V
10	+12V1	22	+5V
11	+12V1	23	+5V
12	+3.3V	24	GND

J6 – Input Power (Molex P/N: 87427-0802)

Pin	Definition	Pin	Definition
1	GND	5	+12V
2	GND	6	+12V
3	GND	7	+12V
4	GND	8	+12V

J8 – Output Power (Molex P/N: 87427-0802)

Pin	Definition	Pin	Definition
1	GND	5	+12V
2	GND	6	+12V
3	GND	7	+12V
4	GND	8	+12V

J9 – Thunderbolt Power (Molex P/N: 43650-0400)

Pin	Definition
1	VDD_12V
2	GND
3	GND
4	VDD5VAUX

J10, J11 – Power Standby LED (Samtec P/N; TFM-102-01-L-S-RA)

Pin	Definition
1	3VAUX_PG_LED
2	GND

FAN1, FAN2, FAN3 – Fan Speed Control (Molex P/N: 22-05-3021)

Pin	Definition
1	12V_FAN
2	FAN_RTN

NOTE: All fans are temperature controlled.