

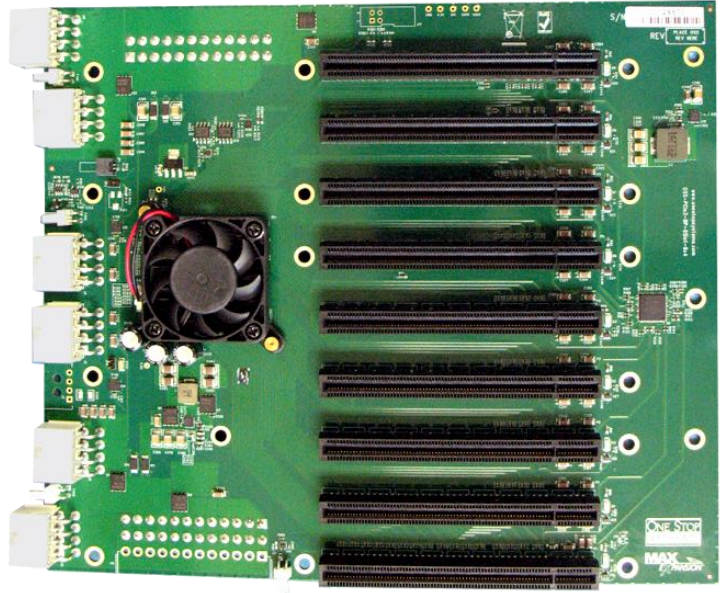
# Expansion Backplane, 8 PCIe x4 slots (416)

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

PN: OSS-BP-416

## Features

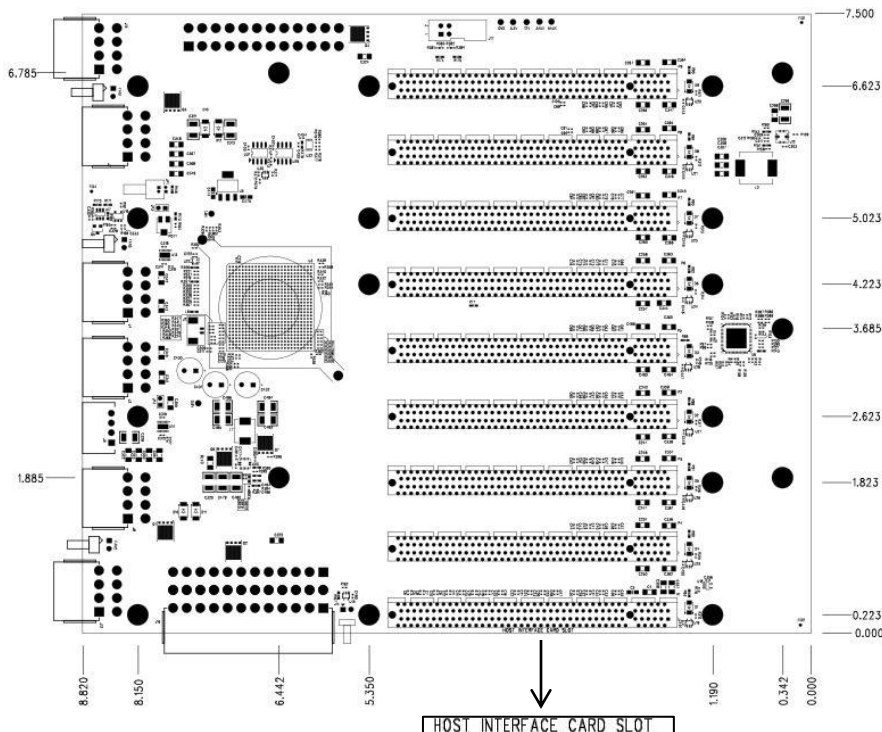
- One OSS PCIe x16 3.0 target slot for OSS target cable adapter
- Eight PCIe x4 3.0 expansion slots (x16 mechanical)
- ATX power input
- Thunderbolt power connector
- Fan speed controller



## Specifications

Dimension (H x L):	7.5" x 9.0"
Power:	ATX
Slots:	1 OSS target slot (for OSS target cable adapter only) 8 PCIe x4 3.0 electrical; x16 mechanical slots

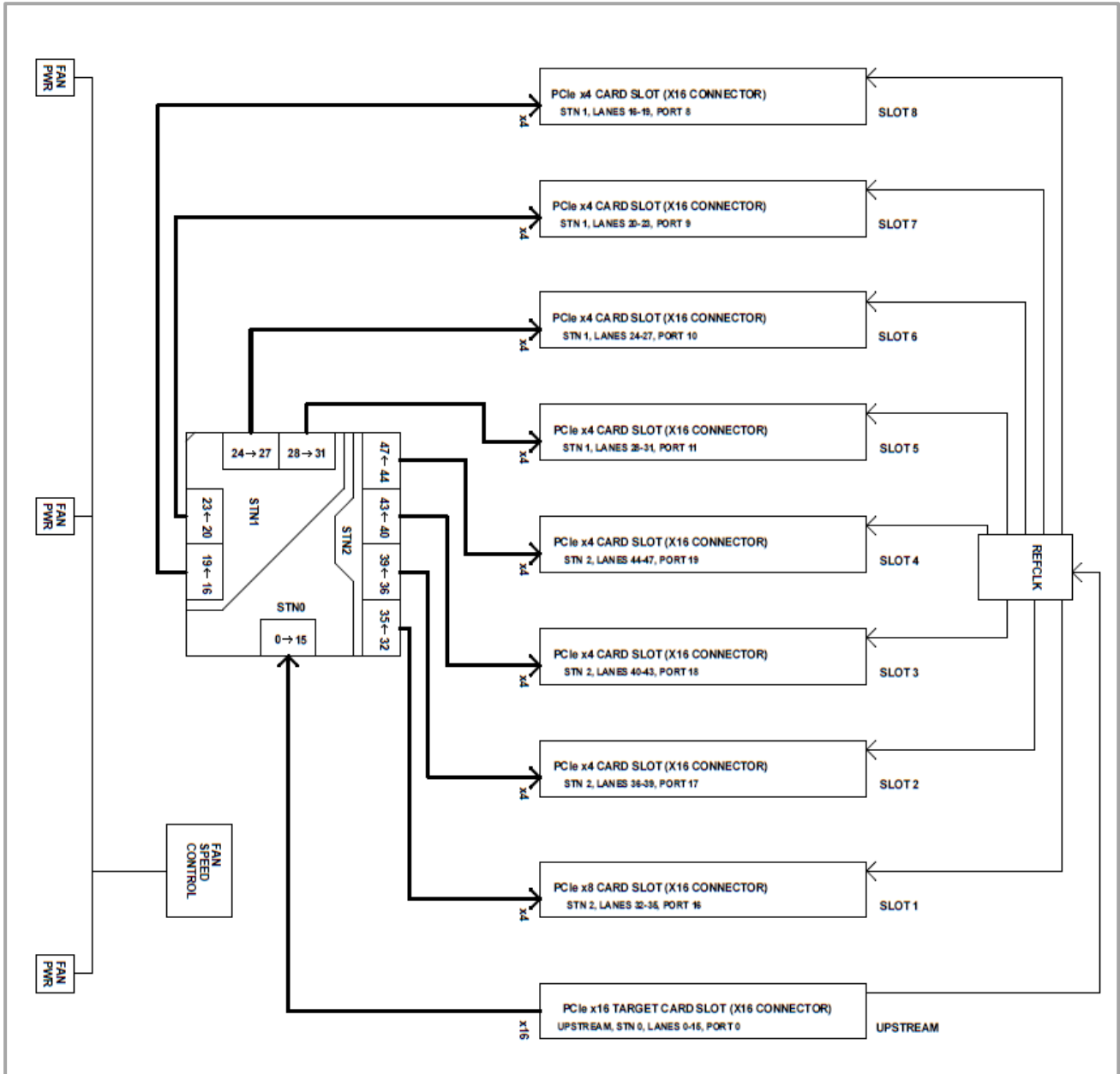
## Dimensional Drawing



**NOTE:** The 416 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
J3, J4, J7, J8	Output power
J5	Thunderbolt Drive Power
J11, J13, J15, J16	Input Power
J14	Force Power On
J17	I2C Interface
JP1, JP5	Power Standby LED Connector
JP4	Fan Power Control

J3, J4, J7, 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

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

Pin	Definition
1	CE_PWR_ON#
2	GND

J5 – Thunderbolt Drive Power (Molex P/N: 43650-0400)

Pin	Definition
1	NC
2	GND
3	GND
4	VDD5VAUX

J11, J13, J16 – 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

J15 – Input Power (Molex P/N:87427-2402)

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

J17 –I2C Interface Connector (3M P/N; 929710-10-02-RK)

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

JP1, JP5 – Power Standby LED (Samtec P/N; TFM-102-01-L-S-RA)

Pin	Definition
1	PU_3AUX
2	GND

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

Pin	Definition
1	FAN_12V_PU
2	FAN_RTN

**NOTE:** Fan 3 is Temperature Controlled.