

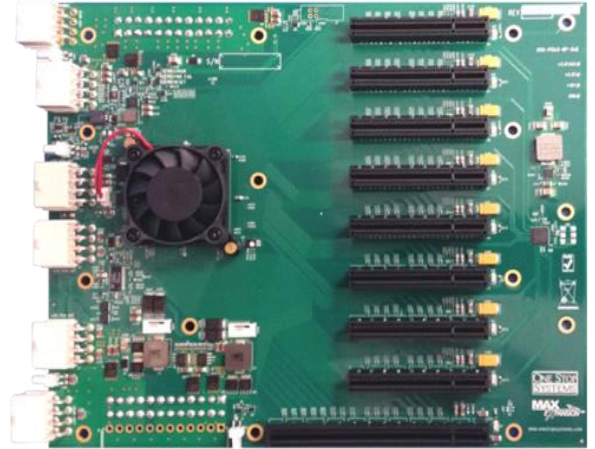
# Expansion Backplane, 8 PCIe x8 slots (452)

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

PN: OSS-BP-452

## Features

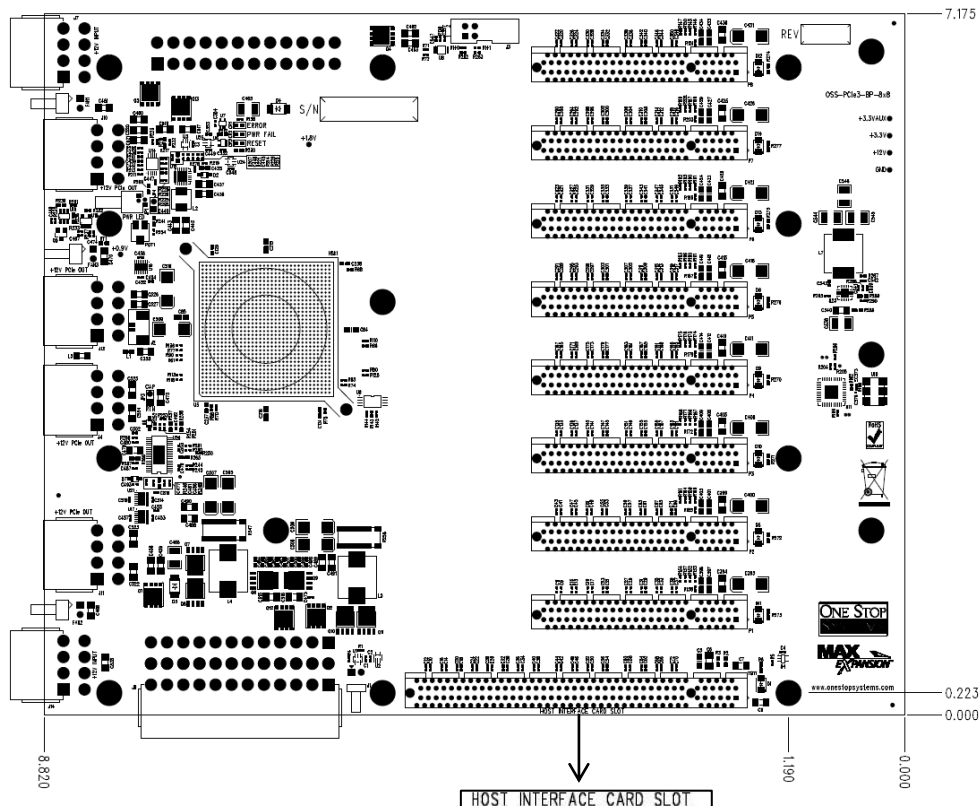
- One OSS PCIe x16 3.0 target slot for OSS target cable adapter
- Eight PCIe x8 3.0 expansion slots (x8 open-back mechanical)
- ATX power input
- Thunderbolt power connector
- Fan speed controller



## Specifications

|                     |  |
|---------------------|--|
| Dimensions (H x L): | 7.5" x 9.0"  |
| Power:              | ATX  |
| Slots:              | 1 OSS target slot (for OSS target cable adapter only)<br>8 PCIe x8 3.0 electrical; x8 open-back mechanical |

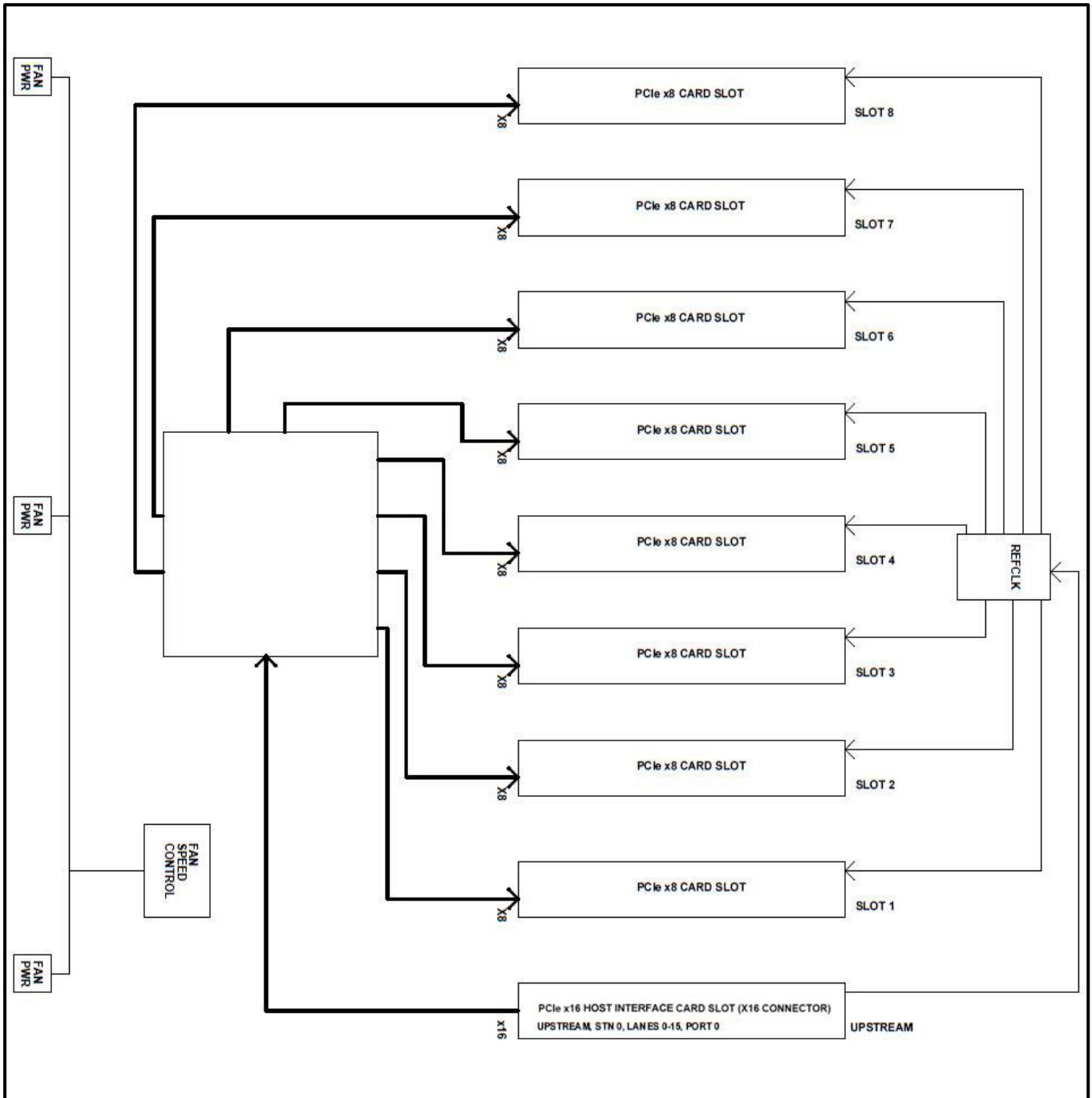
## Dimensional Drawing



**NOTE:** The 452 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                | Force Power On    |
| J3                | I2C Interface     |
| J4, J10, J11, J12 | 12V Output Power  |
| J6, J7, J8, J14   | Input Power       |
| JP1, JP5          | Power Standby LED |
| JP3               | Fan Speed Control |

J3 –I2C Interface Connector (3M P/N; 929710-10-02-RK)

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

J6, J8 – 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        |

J1 – Force Power On (Molex P/N: 22-05-3021)

| Pin | Definition |
|-----|------------|
| 1   | PWR_ON#    |
| 2   | GND        |

J4, J10, J11, J12 – 12V 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       |

J7, J14 – 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       |

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

| Pin | Definition |
|-----|------------|
| 1   | +3.3VAUX   |
| 2   | GND        |

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

| Pin | Definition |
|-----|------------|
| 1   | FAN_12V_PU |
| 2   | FAN_RTN    |

**NOTE:** All fans are temperature controlled.