**PEMUX backplane, 4 PCIe Gen 3.0 x8 w/ x16 slot, 6 PCIe Gen3.0 x4 w/ x4 slos, and RoHS**

# PEMUX-10S1-R10

**Quick Installation Guide**

**Version 1.0**

Feb.15, 2019

## Package List

PEMUX-10S1-R10 package includes the following items:

* 1 x PEMUX-10S1-R10
* 1 x QIG (Quick Installation Guide)



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## Specifications

* + System Type: PEMUX Backplane
  + PiMax: 1 ea (full size)
  + PCI-E slot:

4 x PCIE x8 from CPU 4 x PCIE x4 from CPU

Slot type: x8 signal with x16 slot Slot type: x4 signal with x4 slot 2 x PCIE x4 from PCH

Slot type: x4 signal with x4 slot

* + Chassis: Mounting hole compatible with PCI-14S
  + Others:

ATX power connector x1 (24pin)

note: Add addtion 8pin power connector if needed

STATUS\_LED1 connector (2X7 pin) x1 (pwr\_led, sata\_led, lan\_led, 10g\_led)

Reset connector (2 pin) x1 SM BUS connector (2 pin) x1 PWRGD connector (2 pin) x1 LCM connector (4 pin) x1 PWRBTN connector (2 pin) x1 Fan connector (4 pin) x4 CASE OPEN (2 pin) x1

Note:

x4 slot with open-ended connector

## Ordering Information

* + **PEMUX-10S1-R10:**

1-Slot PEMUX backplane, 4 PCIe Gen 3.0 x8 w/ x16 slot,6 PCIe Gen3.0 x4 w/ x4 slos, and RoHS

* + **RACK-305G:**

4U 14-slot full-size rack-mount chassis

* + **RACK-360G:**

4U 14-slot full-size rack-mount chassis

* + **RACK-3000G:**

4U 14-slot full-size rack-mount chassis

## Jumper Settings and Connectors

|  |  |
| --- | --- |
| **LABEL** | **FUNCTION** |
| HDC\_CONNA1, HDC\_CONNB1, HDC\_CONNC1 | Motherboard connectors |
| PCIEX16\_1,  PCIEX16\_4,  PCIEX16\_6, PCIEX16\_7 | PCIEX8 BUS connectors |
| PCIEX4\_2,  PCIEX4\_3, PCIEX4\_5 | PCIEX4 BUS connectors |
| LCM1, LCM2 | LCM connectors |
| USB1 | USB connector |
| PSU2 | ATX power connector |
| PSU1 | 12V DC-IN connector |
| SM-BUS1 | SMBUS connector |
| PWRBTN1 | Power Button connector |
| RESET1 | Reset Button connector |
| BP\_FAN1~BP\_FAN4 | Fan connectors |
| PWRGD1 | Power good signal output |
| CASE\_OPEN1 | Case open connector |
| PWR\_SMB1 | Power supply SMBus connector |
| K\_TYPE1, K\_TYPE2 | Temperature measurement connectors |
| STATUS\_LED1 | System status LED connector |

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| --- | --- | --- | --- |
| **PSU2: ATX Power Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 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 | Pwr\_ok | 20 | -5V |
| 9 | STB5V | 21 | +5V |
| 10 | +12V | 22 | +5V |
| 11 | +12V | 23 | +5V |
| 12 | +3.3V | 24 | GND |

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| **PSU1: 12V DC-IN Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 5 | +12V |
| 2 | GND | 6 | +12V |
| 3 | GND | 7 | +12V |
| 4 | GND | 8 | +12V |

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| --- | --- | --- | --- |
| **BP\_FAN1~BP\_FAN4: Fan connectors** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 2 | +12V |
| 3 | FAN SENSE | 4 | FAN CONTROL |

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| **PWRGD1: Power Good output** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 2 | Power Good |

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| **LCM1, LCM2: LCM Connectors** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | LCM\_TX | 2 | +5V |
| 3 | LCM\_RX | 4 | GND |

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| **PWRBTN1: Power Button** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 2 | PWRBTN\_N |

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| **RESET1: Reset Button** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 2 | RESET\_N |

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| **SM-BUS1: SMBUS Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | SMDATA | 2 | SMBCLK |

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| **PWR\_SMB1: Power Supply SMBus Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | SMbus\_CLK1 | 2 | SMbus\_DAT1 |
| 3 | NC | 4 | GND |
| 5 | NC |  |  |

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| **USB1: USB Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | +5V | 2 | GND |
| 3 | DATAX- | 4 | DATAX+ |
| 5 | DATAX+ | 6 | DATAX- |
| 7 | GND | 8 | +5V |

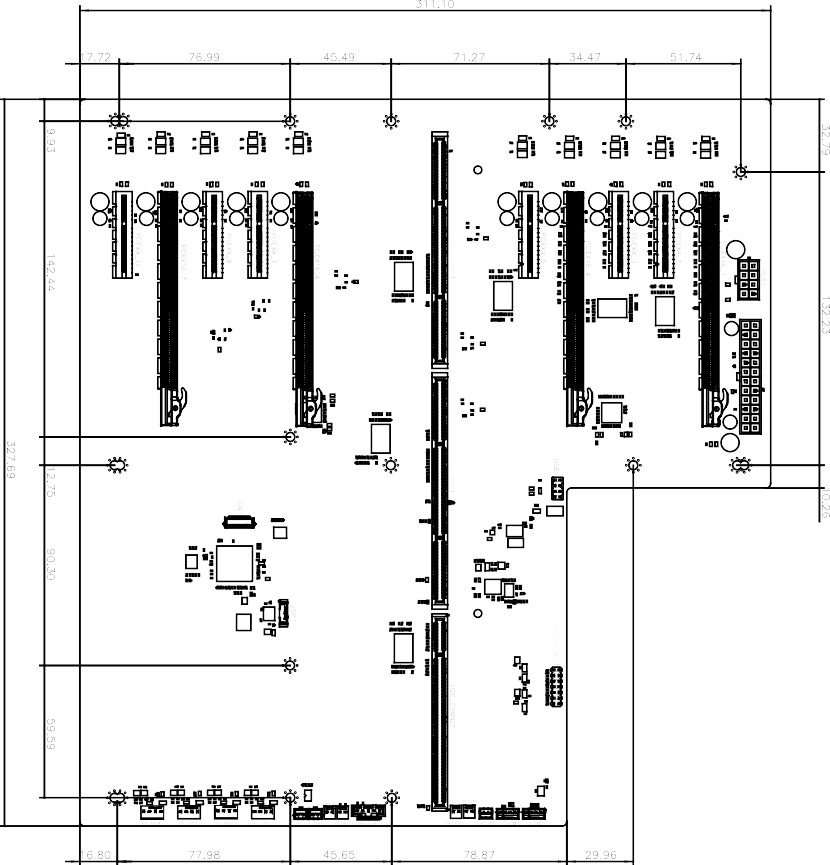
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| **CASE\_OPEN1: Case Open Connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | GND | 2 | CASEOPEN\_N |

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| **K-TYPE1, K-TYPE2: Temperature Measurement Connectors** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN NO.** | **DESCRIPTION** |
| 1 | T-SENSE\_N | 2 | T-SENSE\_P |

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| **STATUS\_LED1: System Status LED connector** | | | |
| **PIN NO.** | **DESCRIPTION** | **PIN**  **NO.** | **DESCRIPTION** |
| 1 | System Power LED\_N | 2 | +3.3V |
| 3 | HDD active\_LED\_N | 4 | +3.3V |
| 5 | USB active\_LED\_N | 6 | +3.3V |
| 7 | System Green LED\_N | 8 | +3.3V |
| 9 | System Red LED\_N | 10 | +3.3V |
| 11 | 10G LAN active LED\_N | 12 | +3.3V |
| 13 | 1G LAN active LED\_N | 14 | +3.3V |

**Board Layout: Jumper and Connector Locations**





**（Unit: mm）**