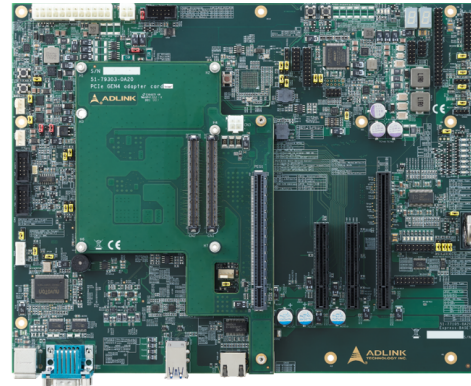


# Express-BASE7 Plus

R3.1 COM Express<sup>®</sup> Type 7 Reference Carrier Board in ATX Form Factor

## Features

- PICMG COM Express R3.1 specification
- 1x PCIe x16 Gen4 with a 2nd PCIe clock at lane 16-31
- 4x 10G BASE-KR and associated CEI mode sideband signals
- Proprietary PCIe x16 slot for dedicated 10GbE adaptor
- 2x PCI/PCIe x8 slots, SATA, USB 3.0/2.0 and GbE LAN



## Specifications

- **Core Module Interface**  
 PICMG COM Express Revision 3.1  
 Supports R3.1 Type7 module in Basic or Compact form factor
- **Dimension**  
 305 mm x 244 mm (ATX)
- **Expansion Busses**  
 1 PCI Express x16 slot (up to Gen4 with 2nd PCIe clock)  
 2 PCI Express x8 slots
- **POST LEDs**  
 Onboard diagnostics for BIOS POST code data and address on LPC bus
- **Secondary BIOS**  
 Onboard socket for secondary SPI flash
- **Super I/O**  
 Winbond WF83627DHG on LPC bus
- **Digital I/O**  
 I2C to GPIO bridge PCA9535
- **Connectors**  
 Two 220-pin board-to-board connectors, up to 20GT/s (Type 7)
- **10GbE LAN**  
 Up to 4x 10GBASE-KR and related sideband signals  
 1 PCI Express x16 slot routing for inserting 10GbE adapter cards  
 10GbE SFP+ or 10GBASE-T by using dedicated 10GbE adapter cards
- **GbE LAN**  
 10/100/1000BASE-T  
 compatible RJ-45 on I/O panel  
 GbE\_SDP support (dependent on module)
- **NC-SI and IPMI BMC**  
 NC-SI interface and IPMI feature are optional by project basis
- **SATA**  
 2x SATA ports
- **USB**  
 4x USB 3.x/2.0 ports
- **Serial Port**  
 2x DB-9 on I/O panel (from Winbond Super I/O carrier)  
 2x onboard 10-pin header (from COM Express module)
- **KB/Mouse**  
 2x 6-pin mini-DIN
- **Feature Connectors**  
 SMBus, I2C, module control signals
- **Miscellaneous**  
 Reset, Power LED, HDD LED, Buzzer

# Functional Diagram

