

# MB-COME6-2

x86 Family



**Mini ITX Carrier Board for COM Express Type 6 Compact/Basic Modules with PEG (PCIe x16) Support on Riser.**

## HIGHLIGHTS

- ▶ Universal platform for high end COM Express type 6 modules
- ▶ Low profile for optimized mechanical and thermal integration
- ▶ DP++ and HDMI monitor outputs for high resolution visualization
- ▶ 2x Gbit Ethernet with 4 kV isolation for usage in medical devices
- ▶ Easy to extend with M.2, Mini PCIe and riser interface (PCIe x16)
- ▶ 2.5" HDD/SSD integration without cables
- ▶ Variants optimized for BoxPC and PanelPC integration
- ▶ Robust and reliable with extended temperature support

Based on

**COM  Express**

## TECHNICAL SPECIFICATION

**Supported modules** COM Express Type 6 in compact and basic format

**External interfaces (front IO)**

- 1x DisplayPort (DP++) with up to 4K
- 2x HDMI with up to 4K
- 2x Gbit Ethernet, 4 kV isolation
- 4x USB 3.0
- Audio 2x 3.5 mm (headphone out, microphone in)
- Power and reset button

**Internal interfaces (options)**

- 1x Dual channel LVDS or eDP (depends on variant) + backlight control/power
- 3x USB 2.0 (via internal USB hub)
- 1x USB 2.0 (Type A) on back side
- 1x RS-232
- 2x SATA (with 5 V power connector)
- Speaker out R+L (2x 1.4 W)
- 1x Fan (12 V, 3-pin, PWM controlled)
- SPI BIOS flash socket for test/debug

**Riser interface** PCIe x16 (alt. x8/x8) on goldfinger contacts to be used with adapters (support depends on CPU module PEG-port configuration)

**Mass storage and extension sockets**

- 1x Mini PCIe socket (full size, with micro-SIM card support)
- 1x M.2 2230 Key E socket (PCIe x1 and USB 2.0) for IO
- 1x M.2 2280 Key M socket (default SATA, optional PCIe x4) for SSD
- 1x 2.5" HDD/SSD socket (mounting kit separately available)

**Special options (not assembled by default)**

- Internal connector for IO extension with I2C/UART/CTRL
- Internal connector for SMB/I2C/Smart Battery
- Touch button solution connector for HMI front control
- USB 3.0 support for USB port on back side (only with special module config.)
- Assembly option for integrated Sentinel license dongle chip

**Power supply**

- Voltage: 12 V (+/- 5 %)
- Connector type: Phoenix MST-BA2,5/2-G-5,08
- (Mating connector: Phoenix MST-BA2,5/4-ST-5,08)
- Battery: 3 V, CR2032 (replaceable)

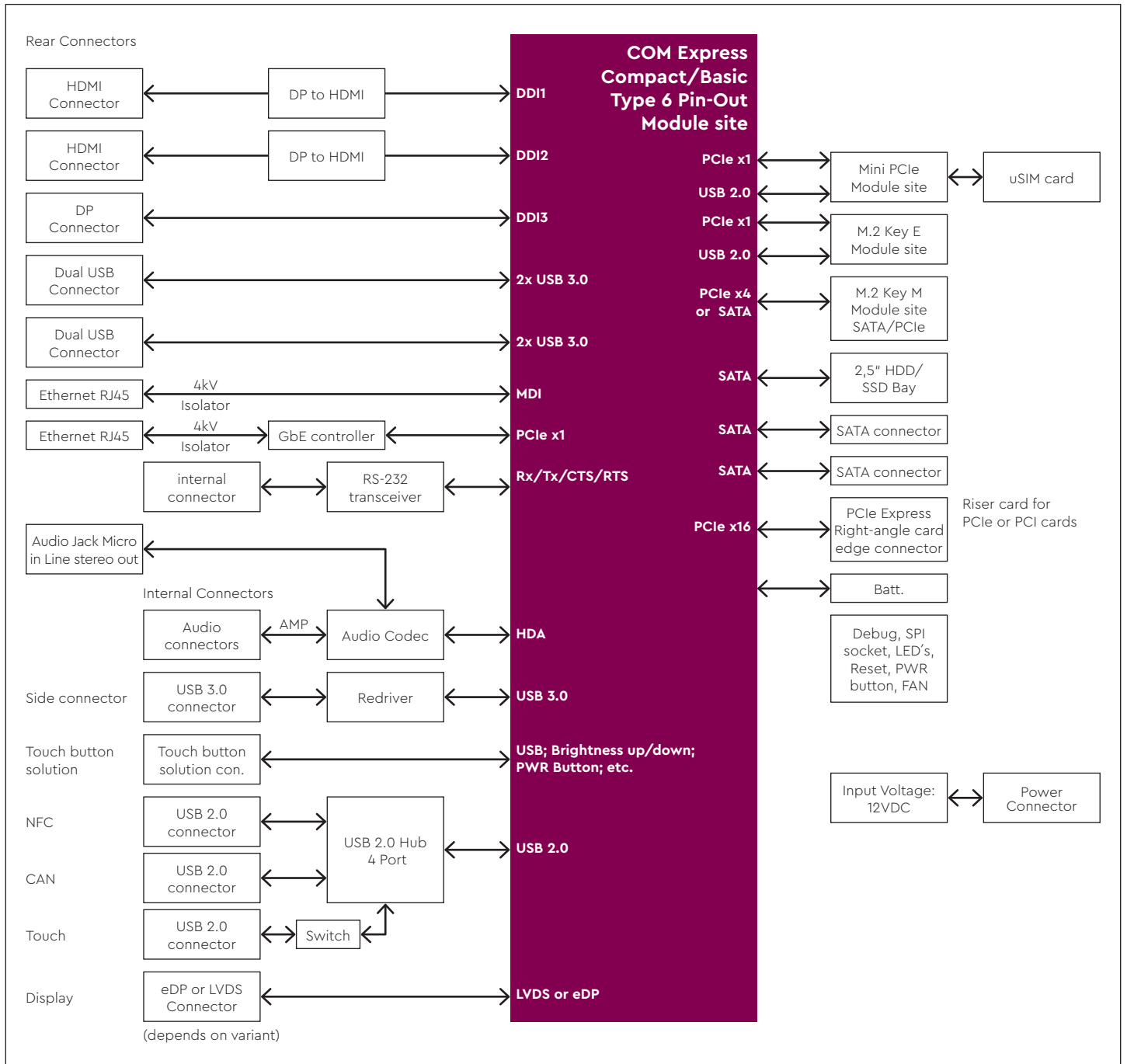
**Environment**

- Operating temperature: -20°C...+85°C
- Storage temperature: -40°C...+85°C

**Form factor/ dimensions**

- Mini ITX, 170 × 170 mm

## BLOCK DIAGRAM MB-COME6-2



## ORDERING INFORMATION

### MB-COME6-2-EVAL

Carrierboard for COM Express Type 6 compact/basic modules. Standard version including Dual Channel LVDS, 3x int. USB, RS-232, 2x SATA, audio amplifier for speaker, 3-pin fan connector, SPI BIOS flash socket and back side USB (Type A) connector.

### MB-COME6-2-EDP

Carrierboard for COM Express Type 6 compact/basic modules. Standard version including eDP, 3x int. USB, RS-232, 2x SATA, audio amplifier for speaker, 3-pin fan connector, SPI BIOS flash socket and back side USB (Type A) connector.

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