

COM Carrier Board Feature Highlights

- Carrier board for EACOM boards
- Designed for integration
- Multiple connectors to EACOM boards interfaces;
 - Dual Ethernet connectors
 - Mobile PCIe slot with SIM connector
 - uSD/MMC slot
 - Dual USB2.0 Host
 - Dual CAN
 - 24-bit parallel RGB display interface
 - Dual LVDS outputs
 - Audio output, XBee™ connector, and more...
- 12V supply input voltage
- 165 x 104 mm compact form factor

Introduction

Embedded Artists' **COM Carrier Board** is **designed for integration**. Together with a COM board, a flexible **Single Board Computer** (SBC)-type solution is created, ready to be integrated into your product immediately!

The carrier board is ideal for:

- Industrial applications like factory, process and building automation
- Test and measurement equipment
- Telematics and gateway applications

The on-board mini-PCIe, SDIO and XBee™ interfaces makes it very **simple to add RF solutions**.

The **COM Carrier Board** is compatible with the following COM boards:

- iMX6 SoloX COM Board
- iMX6 Quad / Dual / DualLite COM Board
- iMX6 UltraLite COM Board
- iMX7 Dual (u)COM Board
- more to come...

Specification

<p>Connectors and Interfaces</p> <p>Note that all interfaces/functions are not supported by all EACOM boards.</p>	Connector to EACOM board, MXM3, 314-pos connector with 5 mm standoffs for COM boards
	Dual 10/100/1000 Mbps Gigabit Ethernet RJ45 connectors
	USB OTG interface with ESD production
	Dual USB Host interfaces (via USB Hub) with ESD production
	HDMI connector with ESD production
	uSD/MMC connector (MMC is in parallel with uSD, so either one can be used but not both)
	Dual CAN transceivers with ESD protection and optional termination, accessible via Molex Micro-Fit 3.0 conn.
	SATA connector
	Internal UART connectors (compatible with FTDI cables)
	XBee™ compatible interface connector
	Mini PCIe connector for half and full-size cards, including SIM card holder and USB interface
	FPC connectors for serial and parallel camera interface and serial display output (MIPI)
	Dual LVDS connectors
Parallel 24-bit RGB display interface	

	Expansion connectors for many COM Board signals
	Audio codec with line out 3.5mm audio jack connector (with internal connector for microphone and line input and headphone output)
Powering	12V (+-30%) supply voltage, either via internal ATX connector or via external Molex Micro-Fit 3.0 connector
	Reverse polarity protection
	Internal 3.3V/4A and 5V/3A (and 3.3V/3A for PCIe) DC/DC converters with high efficiency
	Li-Ion / Li-Polymer battery charger for COM board RTC (note: battery not included)
Dimensions	165 x 104 mm (same size as a typical 7 inch LCD)
	Five M3 holes for mounting and grounding
Environment	0 - 60° Celsius
	5 - 90% relative humidity, non-condensing
Other	On/Off and Reset pushbuttons
	Input current measurement

Mechanical Solutions

Mechanical and display solutions exist to make integration work even simpler:

- Heat spreader solutions
- Heat sink solutions
- Boxed solutions
- Display mounting solutions

Contact Embedded Artists for more information.

The **COM Display Adapter** is a reference design for connecting a parallel RGB display to the **COM Carrier Board**.

Ordering Information

Part No. ^[1]	PCIe	Ethernet	USB Host	HDMI	LVDS	CAN	Memory card	Audio	XBee	SATA	Supply Voltage	Operating Temperature
EAC00246	yes	2x 10/100/1000 Mbps	2x	yes	2x	2x	uSD/MMC	Line out	yes	yes	12V	0 - 60° C

^[1] Standard configurations listed. Others on request.

Support Highlights

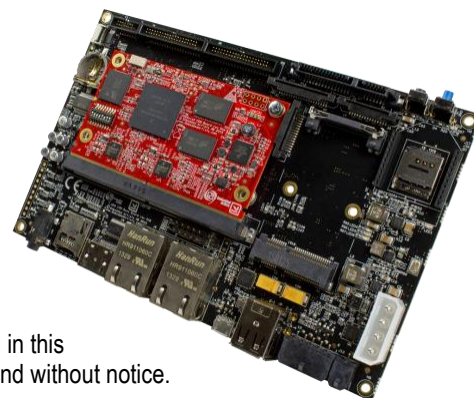
Embedded Artists is a reliable and competent partner - we help you become successful!

- Professional and responsive support
- Standard Carrier boards for integration
- Custom Carrier board design
- Customization
 - Different pinning, supply voltage, memory sizes, etc
 - Single Board Computer (SBC) solutions
- Display solutions
- Mechanical solutions
- Schematic review of customer carrier board designs
- Driver and application development

Development Kits

The **COM Carrier Board** is used as part of the **iMX6/7 Developer's Kits**, and provides reference implementations of key interfaces.

These kits provides a quick path to get started with development and integration work.



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