



COM Express QuickStart Kit, 1.8GHz Intel Atom N2800, 4GB RAM, 32GB SSD

Part: 121004-KT | **Model:** Intel Atom QuickStart Kit

The 121004-KT provides everything you need to get your COM Express project off to a fast start. Powered by a 1.8GHz Intel Atom® N2800 CPU with 4GB RAM and integrated heatsink, the QuickStart kit includes an installed 2.5" 32GB SATA solid-state disk. Standard features include five USB 2.0, two RS-232, one RS-485, dual Gigabit Ethernet, SATA, DisplayPort, and audio interfaces. To interface the RS-485 port, a 10-pin IDC to DB9M serial cable is included. The carrier board and module are powered by the included 100-240VAC to 24VDC external power supply with US power cord. The QuickStart kit uses the same COM Express module and carrier board as the Sealevel Relio R2 and R3 industrial computers.

Sealevel's 121004-KT simplifies software development and prototyping while the target application carrier board is designed. Take advantage of Sealevel's carrier board development services for the fastest time to market. Our extensive library of proven I/O circuits including serial, analog, and digital functionality simplifies the design process and can be easily optimized to meet the specific I/O count, voltage ranges and connector types required for your application.

Turn to Sealevel's custom capabilities for expertise in electrical, mechanical, software, environmental stress screening, project management, and compliance & certification. Call us today to discuss the design capabilities, reliability improvements and design control advantages that a Sealevel COM Express carrier board or system design will bring to your next product.

Features & Specifications

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Carrier Board Features

- COM Express Type 6 reference carrier board
- Supports Basic and Compact Type 6 COM Express modules that are compliant with PICMG COM Express Revision 2.0
- Two 220-pin COM Express Type 6 connectors
- PCI Express Half-Size Mini Card slot supports optional wireless interface and other expansion modules
- Two Gigabit (10/100/1000BaseT) Ethernet RJ45 ports
- Four high-retention Type A USB 2.0 ports; one 5-pin USB 2.0 header
- Two DB9M RS-232 serial ports; one 10-pin header for RS-485 serial interface
- Mode select jumper for RS-485 auto-enable/Echo
- One DisplayPort interface
- One SATA connector (module dependent)
- Onboard diagnostic LEDs for board power and SATA activity
- Integrated IDT high definition audio codec
- Two 3.5mm connectors for audio line-in and line-out
- Wide-temperature 2032 button cell for module RTC backup
- Separate COM Express module and system reset buttons
- Header for power switch
- 18-36VDC input power range (fused at 30A) with Molex (39-01-2040) mating connector

COM Express Module Features

- COM Express Compact Type 6 connector layout
- Includes 1.8GHz Intel Atom N2800 dual-core processor
- Maximum 4GB DDR3 1066MHz RAM via 204-pin SODIMM (4GB Installed)
- Integrated Intel NM10 Express chipset CG82NM10 PCH, TDP 2.1W
- Integrated Gigabit Ethernet controller
- I/O interfaces can include up to 5x PCI Express, 2x SATA II, 8x USB 2.0, 3x USB 3.0 (optional, uses 1x PCIe lane), LPC bus, I2C bus (fast mode, 400kHz, multi-master)
- Digital high definition audio interface with multiple codec support
- Integrated graphics with two independent display pipes supporting DirectX 9, Pixel Shader v3.0 and OpenGL 3.0
- Two Digital Display Interfaces (DDI), via 2x DisplayPort 1.1, TMDS (DVI, HDMI 1.3a)
- CRT interface includes 350MHz RAMDAC with resolutions up to 1920x1200
- Board controller includes multi-stage watchdog, non-volatile user data storage, BIOS setup data backup and power loss control
- Embedded BIOS features AMI Aptio UEFI with 4MB serial SPI firmware flash
- Supports ACPI 3.0 power management with battery backup
- Supports Microsoft Windows and Linux operating systems
- Wide temperature operation from 0-60C ambient

Specifications

BIOS	AMI Aptio UEFI
Chipset	Intel NM10 Express
CPU Type	Intel Atom
CPU	1.8GHz Intel Atom Dual-Core N2800
Dimensions	8.00" (L) x 4.35" (W)
Display Support	DisplayPort 1.1
Extended Temperature	Call for Options
Humidity Range	10 – 90% Relative Humidity, Non-Condensing
Max RAM	4GB DDR3 1066MHz via 240-pin SODIMM Slot (4GB Installed)
Max Video	1920x1200 @ 60Hz
Networking	Dual Gigabit Ethernet
Operating Temperature	0°C to 60°C (32°F to 140°F) Ambient
Power Requirement	18-36VDC Input Range (Fused at 30A)
Serial Ports	Two RS-232, One RS-485
Storage Temperature	-20°C to 80°C (-4°F to 176°F)
USB 2.0 Ports	Four High-Retention USB