



COMs-Based Application-Specific Solutions

Get your embedded
computing solution to
market now!

Diamond Systems combines industry leading industrial I/O expertise with off-the-shelf Computer-on-Modules to offer low-risk application-specific single board computer solutions turned to fit customer requirements.

Reduced risk

Perfect fit solutions

Optimized lifecycle costs

Rapid time to market

Lowered development costs

Proven functional blocks

Extended product lifecycles



DIAMOND SYSTEMS
CORPORATION

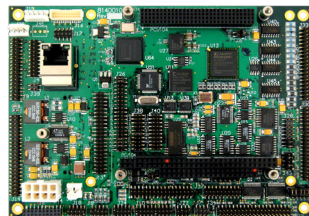


Benefits of a COM-based Solution

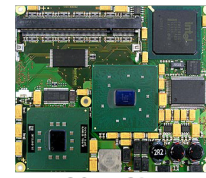
- Faster time to market
- Lower development cost
- Lower total system cost
- Smaller size with higher functional density
- Wide choice of processor performance levels
- CPU obsolescence protection
- Via plug compatible COM CPU modules
- Designed to your physical specifications
- Rugged, embedded single board system
- Single vendor solution

CUSTOM COMPUTING SOLUTIONS WITHOUT THE RISK

Diamond Systems can provide you with a low-risk customized application-specific computing solution. The resulting solution consists of a COM baseboard populated with the required I/O coupled with a COM CPU module with the processing power needed to drive the application. Our solutions are based on proven Diamond Systems engineering building blocks which are designed into applications around the world today.



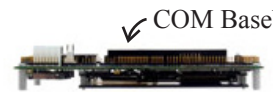
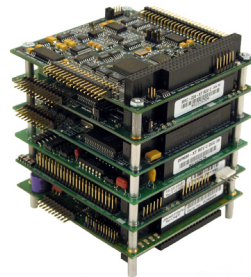
COM Baseboard



COM CPU

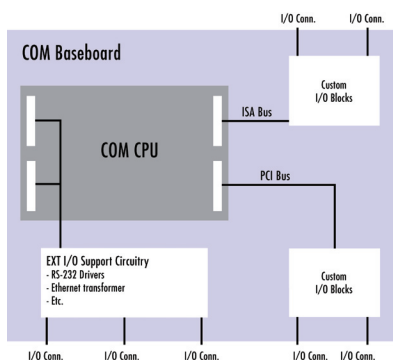


A highly integrated COM-based custom design can reduce a stack of PC/104 I/O modules into a single board computer!



COM Baseboard
COM CPU Module

Diamond Systems' development approach reduces your design risk by using state-of-the-art functional design blocks, allowing us the flexibility to produce a solution that meets your specifications in less time and at a lower development cost. Our design libraries and areas of expertise include:



COM Technologies:

- ETX
- XTX
- COM Express
- Qseven

Expansion Buses:

- ISA
- PCI
- PCI Express
- LPC

Application-Specific Functions:

- Analog I/O
- Digital I/O
- Counter/timers
- Relays and opto-isolated I/O
- Field buses (CAN, MIL-STD-1553, etc.)
- Ethernet
- Serial I/O, USB
- Graphics
- GPS and wireless communications
- DC/DC power supplies

We are part of your R&D Team!

Working with us is like bringing an R&D partner on-board. Together we will engage in a consultative relationship to agree on a proposal, define specifications, build prototypes and begin production.

Whether your application requires a simple product variant or demands a full custom design, Diamond Systems will work with you to quickly and efficiently produce a solution to fit your embedded computing application.

We will work together in a phased project approach, beginning with a Definition Phase, followed by a Design Phase, Prototype Phase and then finally full production.

DEFINITION PHASE

- Customer Requirements Document
- Consultation with Diamond Systems
- Design Team
- Diamond Systems Proposal
- Joint Proposal Review
- Final Proposal

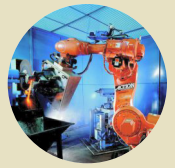
DEFINITION PHASE

Activity

Typical Timeframe

• Develop Specification (Specification Review Milestone)	1-2 weeks
• Design schematics (Schematic Review Milestone)	2-3 weeks
• PCB Design & Fabrication	3-4 weeks
• Prototype Build	2 weeks
• Design Verification (Prototype Approval Milestone)	2-3 weeks

Timeframes are dependent on the complexity of the design. From Specification to Verified Prototype is approximately 10-14 weeks.





OTHER VALUE-ADDED SERVICES DIAMOND SYSTEMS PROVIDES:

- Operating system support
- Drivers and BIOS modifications
- Latching I/O connectors
- Burn-in and temperature screening
- Conformal coating
- Extended temperature operation
- System integration
- Program management
- Lifecycle management



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