

CALIBER INTERCONNECT SOLUTIONS

DELIVERING INTELLIGENT EMBEDDED SYSTEMS WITH REDUCED DEVELOPMENT CYCLE TIME

By Teja Boncheruvu

The technological advancements in the areas of data processing, communication, sensing, actuating and storage have enhanced the scope of application of embedded systems in our daily lives. As the technology advances, the need to design innovative embedded systems with reduced development cycle time in order to cater to the ever-changing preferences of modern-

day customers is also increasing. However, enabling full-scale automation with embedded systems of reduced development cycle while addressing the issues like Signal integrity, Power integrity, EMI/EMC, Thermal distribution and CAM is a challeng-

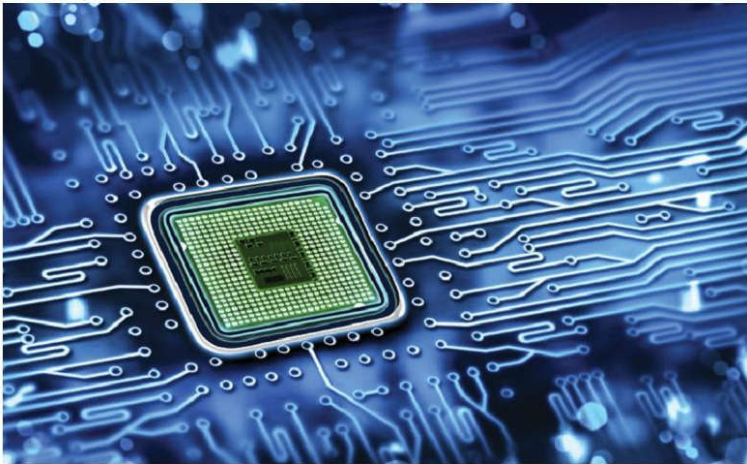


ing task. Moreover, ensuring minimal cost while designing a customizable and feature rich solution is imperative for the success of any embedded system deployment. Recognizing the needs of businesses, Caliber Interconnect Solutions has stepped forward to deliver

cost-effective embedded solutions with reduced development time that suit their specific requirements.

End-to-end Services From Concept Design to Product Delivery

Caliber Interconnect Solutions provides end-to-end product engineering solutions right from concept development, system design to realization and product delivery. The company's embedded system services include Electronic Hardware design (Digital, Analog, Power and FPGA), System Software design, implementation and testing, PCB design, manufacturing, assembly



Being a Product Engineering Solutions company, Caliber Interconnect Solutions offers integrated product engineering solutions to major global players across diverse industries such as Semiconductor, Avionics, Railways and Internet of Things etc. Here are some of the products from the comprehensive product portfolio of the company that showcases its immense technical capabilities in providing innovative solutions to various market segments:

- An IoT-based platform for Agri-tech where one or more IoT gateway devices placed in a Greenhouse connect(s) to the cloud. The mobile and web applications that connect to the cloud enable simultaneous monitoring and controlling of multiple Green houses on-the-go.
- A connected Gaming Platform which in combination with Cloud and Mobile application allows the users to run-time load and play any game including the retro games.
- A geographically distributed system for European railways to replace the proprietary networking protocol by an IP networking protocol which allows for remote monitoring, configuration and synchronization of the signaling nodes. A Coach Health monitoring device for the Indian Railways.
- A PCI Express based Giga-bit Ethernet Controller and Switch for one of the largest Semiconductor companies.
- A 30Gbps LVDS communication interface in the area of communication engineering, that evaluates a custom built SOM consisting of an array of FPGAs in 5G applications.

and testing, Signal integrity, Power integrity, Thermal analysis and EMI/EMC analysis, IC Packaging and SIP Design. "Currently, the embedded systems market is not being tapped to its potential although the industry is technology capable. Indian market presents huge opportunities for embedded systems with a lot of engineering applications waiting for automation," opines Suresh Babu K, Managing Director about the current Indian market scenario. "Embedded systems are characterised by the solutions they present to any given problem. We offer bespoke solutions with reduced development cycle time for a given specific problem to make them efficient, cost-effective and add value to the business," he adds. The company by using 'Scalable and Configurable

Platform' approach to embedded system design offers customizable solutions to the client's business problems.

Flexible Models and Turnkey Solutions

Apart from technology competency, the company also offers flexible business model to help clients address engineering challenges. To the customers who believe in their own architectural solution, the company by engaging on 'Time and Material' basis enables them complete control over their project. To the customers who are risk averse with regard to project finance, the company under 'Fixed Price Model' delivers entire project at a fixed price. Caliber Interconnect also provides on-site resources to help businesses manage their skill gap by augmenting the client's team with its engineers. "Our extensive domain expertise and unique approach towards the product development help us achieve fine balance between the advanced features and cost, enabling clients to choose what they require and pay for what they use. This allows clients to experience integrated product engineering services at optimal cost," elaborates Suresh.

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With head office in Coimbatore and operations in Bangalore, the company operates in the regions of USA, Japan and Singapore apart from India. Caliber Interconnect Solutions is a member of NASSCOM, India Electronics and Semiconductor Association (IESA) and Indo American Chamber of Commerce (IACC). According to Siva Prasad Koka, Director of Marketing, currently the company is developing EVSE and OCPP protocol stack for the electric cars. The company is also investing heavily in building an automation platform using IoT gateway to connect to heterogeneous sensors and actuators for monitoring and controlling of geographically distributed assets. **CR**

Company	Management	Description
Caliber Interconnect Solutions Coimbatore, Tamil Nadu caliberinterconnect.com	Suresh Babu K, Managing Director	Provides a wide range of services which include Embedded product development, SiP, IC packaging, PCB design and electrical analysis outsourcing etc.
EDS India Bangalore, Karnataka eds-india.in	Santanu Roy, Managing Director	Offers services across Complete Hardware Design, Embedded Software, Application software and web applications including Mobile Apps.
Enertech Pune, Maharashtra enertechups.com	Vijay Deshpande, Managing Director	Provides embedded software services for Power Engineering.
Kritikal Solutions Noida, Uttar Pradesh kritikalsolutions.com	Dipinder Sekhon, Co-Founder and CEO	Offers end-to-end product engineering services and IT consulting services to Healthcare, Automotive and Energy sectors.
MenloPark Technologies Hyderabad, Telangana menloparktech.com	Krishna Navuluri, COO	Provides end-to-end embedded software development and product engineering services to Defense, Transportation, Communication, Medical and Industrial automation and other industries.
SkandySys Bangalore, Karnataka skandysys.com	Suresh Patil, CEO	Offers Digital Design, Digital Verification, DFT, Physical Design, Firmware and Software services.
Softnautics Ahmedabad, Gujarat softnautics.com	Rajesh Shah, CEO	Offers embedded system design services with specific focus on embedded software development, test automation and system-level validation for SoCs, application and UI development and more.
Technofist Bangalore, Karnataka technofist.com	Sridhar Papaiah, CEO	Provides academic projects and training on latest embedded technologies.
Toradex Bangalore, Karnataka toradex.com	Samuel Imgrueth, CEO	Specializes in embedded computing technology and offers Arm-based System on Modules (SoMs) and Customized SBCs.
Yantra Vision Bangalore, Karnataka yantravision.com	Kamalesh Vikramasimhan, CEO	Provides technology solutions in the fields of Embedded Vision and Machine Learning to Defence, Aerospace, Industrial Automation and Retail industries.