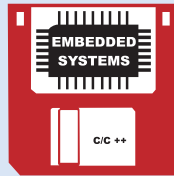


**LEADING  
ONE STOP  
PROVIDER FOR  
EMBEDDED  
SOLUTIONS**



## **EMBEDDED SYSTEMS SOLUTIONS**

[www.embeddedindia.com](http://www.embeddedindia.com)

### **EMBEDDED PARTNERSHIP | ESS AND TQ**

Embedded Systems Solutions (ESS) is TQ Group's India partner.

ESS is proud to promote TQ's superior quality Embedded Modules, Platforms and Systems suitable for applications in Energy | Smart Grid, Industry | Automation, Aerospace, Telecommunication, Transportation and IoT.

### **EMBEDDED PARTNERSHIP | ESS AND INTEL SOFTWARE**

Embedded Systems Solutions (ESS) is the Elite Reseller for Intel® Software Tools in India.

Intel® System Studio 2015 is a comprehensive and integrated tool suite that provides developers with advanced system tools and technologies to help accelerate the delivery of the next generation, energy-efficient, high performance, and reliable embedded and mobile devices.

### **TQ MODULES AND SOLUTIONS WITH THE LATEST INTEL® QUARK™, ATOM™, AND CORE™ TECHNOLOGY**

**UNITED BY TECHNOLOGY**



a leading technology service provider in Germany, regards Intel-based products as an essential core area. This includes both standard embedded PC components and platforms as well as purely customer-specific developments. TQ's expertise in Intel-based systems has secured it the highest classification, **PLATINUM STATUS**, in the Intel Technology Provider Program.

**TOTAL DEVELOPMENT SOLUTIONS FOR EMBEDDED SYSTEMS**

## TQMx86 New Products / Latest Technology

### The full range of x86 Embedded Performance



Intel® Quark™ X1000 series	Intel® Atom™ E3800 series	Intel® Core™ i3/i5/i7 5000U series
TQMx1000 + MBx1000	TQMxE38M	TQMx50UC
EVALx1000 Evaluation platform for customized designs		
Single Core	Single / Dual / Quad Core	Dual Core
<ul style="list-style-type: none"> <li>400 MHz, 16 KB Cache</li> <li>512 MB</li> </ul>	<ul style="list-style-type: none"> <li>up to 1.91 GHz and 2 MB Cache</li> <li>2 / 4 / 8 GB with ECC</li> <li>-40°C ... +85°C</li> </ul>	<ul style="list-style-type: none"> <li>up to 2.1 / 2.9 / 3.2 GHz and 4 MB Cache</li> <li>4 / 8 / 16 GB</li> </ul>
I2C SPI UART GPIO TPM	I2C SPI UART GPIO TPM IRTC BC	I2C SPI UART GPIO TPM IRTC BC

## COMSys

### Highly flexible and scalable platform



MB-COME-1L	COMKit	COMBox / COMPanel
Mainboard for COM Express Modules (Type 2 basic and compact) <i>Only available for OEM partners</i>	Hardware Kits for easy integration into complete systems and project-specific housings	BoxPCs and PanelPCs / HMI in various formats according to your requirements
Additional version for COM Express Type 6 and COM Express Type 10 are coming soon.	Existing of: Mainboard + CPU-Module + Cooling + optional additional features Parameters: CPU-Module / DDR3 / cooling Mass storage and additional interface cards (on request)	

## QSys

### Ultra compact platform with latest Intel® Atom™



MB-Q7-2	QKit	QBox / QPanel
Mainboard for Qseven Modules (x86, according spec. 2.0) <i>Only available for OEM partners</i>	Hardware Kits for easy integration into complete systems and project-specific housings	BoxPCs and PanelPCs / HMI in various formats according to your requirements
	Existing of: Mainboard+CPU-Module+Heatspreader + optional additional features like mSATA Parameters: CPU / DDR3 / eMMC / Temp Mass storage (mSATA) and additional interface cards (on request)	i. e. Standard QBox (110 x 105 x 56 mm) with standard interfaces (top) and additional interfaces (bottom)

## EVALx1000 with Intel® Quark X1000 series

### Key Features



<ul style="list-style-type: none"> <li>Intel® Quark™ X1000 optimized for IoT Gateway applications</li> <li>Ultra Low Power (max. 2.2W TDP)</li> <li>Tested with Intel® IoT Gateway Software Stack ("Moon Island")</li> <li>Available with Intel® IoT Gateway Development License</li> <li>Modular Design for Rapid Prototyping (TQMx1000 + MBx1000)               <ul style="list-style-type: none"> <li>Software development</li> <li>Feature testing and specification</li> <li>Feasibility analyses (3D,...)</li> </ul> </li> </ul>	
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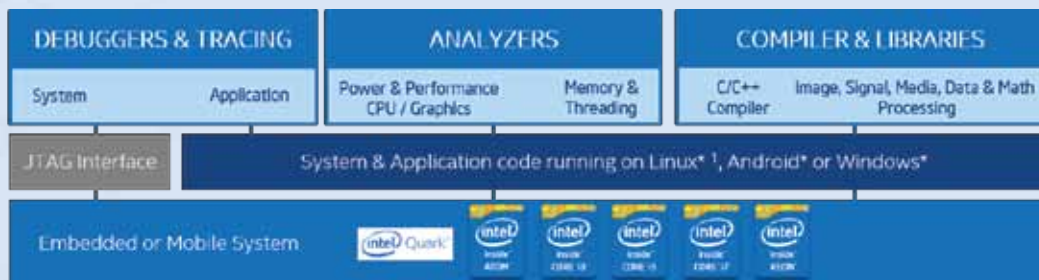




### Deep System-wide Insight for Embedded and Mobile Developers

Explosion of connected smart devices is driving an unprecedented need for efficient tools to meet shorter development cycles. Intel® System Studio provides deep system-wide insight into power, performance, and reliability that helps accelerate time to market of Intel Architecture based mobile and embedded systems and embedded applications.

### Intel® System Studio is a Complete Tools Solution Covering Embedded Application and System Software Cross development



<sup>1</sup> Linux®, Embedded Linux, Wind River® Linux®, Yocto Project®, Tizen®

### Benefits:

#### Accelerate Time-to-Market

Speed-up development and testing with deep hardware and software insight

#### Strengthen System Reliability

Enhance system stability using in-depth system-wide debuggers and analyzers

#### Boost Power Efficiency and Performance

Boost system power efficiency and performance using system-wide analyzers, compilers and libraries

#### Composer Edition

IDE integration for quick start development Compiler & Libraries - improve system and embedded application performance and energy efficiency.

#### Professional Edition

Composer Edition + Performance, power and correctness analyzers for advanced performance and energy efficiency, and more robust systems

#### Ultimate Edition

Professional Edition + Deep system-wide insight through JTAG assisted debug and trace capabilities



### Intel® System Studio provides

Category	Component	Target OS Support								
		Linux* 1,5			Android* 5			Windows*		VxWorks*
		Composer Edition	Professional Edition	Ultimate Edition	Composer Edition	Professional Edition	Ultimate Edition	Composer Edition	Professional Edition	Composer Edition
Host Operating Systems		Linux*, Windows*			Linux*, Windows*			Windows*		Linux*, Windows*, Wind River*, Workbench*
Integrated Development Environment		Eclipse*, Wind River* Workbench*			Eclipse*			Visual Studio*		
Compiler & Libraries	Intel® C++ Compiler	✓	✓	✓	✓	✓	✓	✓	✓	✓ <sup>2</sup>
	Intel® Integrated Performance Primitives	✓	✓	✓	✓	✓	✓	✓	✓	
	Intel® Math Kernel Library	✓	✓	✓	✓	✓	✓	✓	✓	
Application Debugger	Intel® Threading Building Blocks	✓	✓	✓	✓	✓	✓	✓	✓	
	Intel-enhanced GDB* Application Debugger	✓	✓	✓	✓	✓	✓			
Analyzers	Intel® VTune™ Amplifier for Systems		✓	✓		✓	✓		✓	
	Intel® Energy Profiler					✓	✓		✓	
	System Analyzer					✓	✓		✓	
	Frame Analyzer <sup>4</sup>					✓	✓		✓	
System Debugger	Platform Analyzer <sup>4</sup>					✓	✓		✓	
	Intel® Inspector for Systems		✓	✓					✓	
	Intel® System Debugger (JTAG) <sup>3</sup>			✓			✓			

### What is new with Intel® System Studio 2015

- Windows\* Target Support
- Enhanced Intel® VTune™ Amplifier for Systems
- Android\* Lollipop\* and 64-bit Ready
- Offload Compute-intensive Code to Integrated Graphics Cores
- Intel® System Debugger for Easier Defect Isolation
- Improved IDE Integration
- Advanced UEFI Debugging Enhanced Intel® Energy Profiler

## Intel based standard products from TQ:



### Embedded Modules

- **TQMxE38M - COM Express™ Mini Module with Intel® Atom™ E3800**  
Extremely compact, powerful and low powered.  
Scalable with Intel® Atom™ E3805 / E3815 / E3825 / E3826 / E3827 / E3845.



- **NEW: TQMx50UC - COM Express™ Compact Module with Intel® Core™ 5000U Series (5. Generation)**  
Highest performance with  
Intel® Core™ i3-5010U Processor (3M Cache, 2.10 GHz)  
Intel® Core™ i5-5350U Processor (3M Cache, up to 2.90 GHz)  
Intel® Core™ i7-5650U Processor (4M Cache, up to 3.20 GHz)

### Embedded Systems

- **Professional Tablet with Intel® Atom™ Z3745**  
The hardware and mechanical structure of the tablet can endure being dropped from 1m height (up to 1.8 m with an optional MIL casing). The water-proof, shock-proof and dust-proof housing (IP65) withstands the requirements of industrial, construction, logistics and other harsh environments without the extra bulk or weight of a ruggedized case.



## Intel based standard products from TQ:



### Embedded PCs & Platforms

- **EVALx1000 - Evaluation platform with Intel® Quark™ X1000 SoC series**  
Focussed on IoT Gateway applications



This Evaluation platform is for testing purpose / rapid prototyping only. Configurations for mass production will be individually adapted to customer requirements.

- **QSys: Ultra compact and low powered with latest Intel® Atom™ E3800 (BayTrail)**  
Modular platform based on QSeven standard

The Qseven mainboard (carrier board) MB-Q7-2 in combination with a standard Qseven 2.0 (x86) module forms an ultra compact hardware kit. The compact design with only 10 cm x 10 cm x 2,3 cm and the huge amount of interfaces and functionalities allows the user to create high performant but passive cooled solutions like BoxPCs, PanelPCs and custom specific devices in a very fast and convenient way.



- **COMSys: Extremely flexible and scalable from Intel® Atom™ up to Intel Core™ i7**  
Modular Platform based on COM Express™ standard

The COM Express mainboard (carrier board) MB-COME-1 in combination with a standard COM Express module forms a very compact hardware kit that can be used for a freely scalable embedded PC platform thanks to its modular design. Based on COMSys specific housing-solutions BoxPCs and Panel-PCs are available. There are standard till extremely rugged, dust and spray proofed designs obtainable.





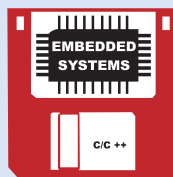
# LEADING ONE STOP PROVIDER FOR EMBEDDED SOLUTIONS

ESS serves a broad range of embedded market verticals including Automotive, Aerospace, Defense, Education, Electronics Design Manufacturing, Energy, Industrial Automation, Instrumentation, Medical Devices, Semiconductor and Telecom/Datacom.

ESS's team of technical experts are adept in precisely identifying client needs, recommending end to end solutions, training and supporting client teams while they learn to effectively leverage the entire toolset features.

ESS also provides product development and total system solutions including application development in C and C++, assembly coding, firmware and device driver development, RTOS porting to target systems and custom board design.

ESS is an active member of India Electronics Semiconductor Association (IESA), a premier trade body representing the Indian Electronic System Design and Manufacturing (ESDM) industry.



## EMBEDDED SYSTEMS SOLUTIONS

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**Mr. Bhooshan Iyer**  
Vice President

### BANGALORE

#5 606, 6th floor, World Trade Center  
Brigade Gateway, 26/1, Dr. Rajkumar Road,  
Malleshwaram (West), Bangalore-560055  
**Phone #** : 080-6764 8888  
**Mobile #** : 9845083528  
**E-Mail (Sales)** : [sales@embeddedindia.com](mailto:sales@embeddedindia.com)  
**E-Mail (Support)** :  
[support@embeddedindia.com](mailto:support@embeddedindia.com)

### PUNE

Shriram Complex, 1126/1, Model Colony,  
Shivajinagar, Pune - 411016  
**Phone #** : 020- 30462035/ 25663478  
**Mobile #** : 7507360099  
**Fax #** : 020-25677202  
**E-Mail** : [pune@embeddedindia.com](mailto:pune@embeddedindia.com)

### HYDERABAD

Shop No. 14, "Global Enclave",  
Bhagyanagar Colony, Kukat pally,  
Hyderabad- 500 072.  
**Phone #** : 040-23063346  
**Mobile #** : 98480 49183 / 98486 55337  
**Fax #** : 040-23063346  
**E-Mail** : [hyderabad@embeddedindia.com](mailto:hyderabad@embeddedindia.com)

### DELHI

No. 705, 7th Floor, Laxmi Deep,  
District Center, Laxmi Nagar,  
Delhi - 110 092  
**Phone #** : 011-22549351  
**Mobile #** : 98102 60353  
**E-Mail** : [delhi@embeddedindia.com](mailto:delhi@embeddedindia.com)

### CHENNAI

No.109 /59A , Ground Floor,  
IV Avenue, Ashok Nagar,  
Chennai - 600 083 Tamilnadu  
**Phone #** : 044-24715750  
**Mobile #** : 98410 53251  
**E-Mail** : [chennai@embeddedindia.com](mailto:chennai@embeddedindia.com)

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