



**○** ZigBee/IEEE 802.15.4

# True One-Stop-Shop compliant solutions

**Connecting smarter** 

### **The Extended Network**



### **OWHAT IS ZIGBEE?**

The ZigBee standard has been developed by the ZigBee Alliance, an association of companies working together to enable reliable, cost-effective, low-power, wirelessly networked monitoring and control products based on an open global standard.

The goal of the ZigBee Alliance is to provide the consumer with ultimate flexibility, mobility, and ease of use by building wireless intelligence and capabilities into every day devices. ZigBee technology will be embedded in a wide range of products and applications across consumer, commercial, industrial and government markets worldwide. For the first time, companies will have a standards-based wireless platform optimized for the unique needs of remote monitoring and control applications, including simplicity, reliability, low-cost and low-power.

The ZigBee communication standard is essential for the growth of wireless home and building automation applications where various end products need to communicate with each other.



(Full Function Device)

### **OZIGBEE MESH NETWORKING**

Above the PHY and MAC layers defined by IEEE 802.15.4, ZigBee enables reliable and secure mesh, star and cluster-tree network topologies with interoperable application profiles.

Mesh networks allow for high levels of reliability and scalability by providing routes through the network.

Coordinator
(Full Function Device)

Device (Reduced or Full Function Device)





Chipcon received the Frost & Sullivan's Technology Leadership Award for leadership in Wireless Sensor Network Technology for its CC2420 IEEE 802 15 4/7igRee BF Tranceiver

With its leading One-Stop-Shop ZigBee compliant solutions, Chipcon is better positioned than ever to exploit the significant potential within the residential, industrial and building automation markets. These are markets fuelled by an increasing need for a more networked and wireless world — a world we refer to as the Extented Network.



### **O CHIPCON AND ZIGBEE**

Chipcon is the world's leading provider of IEEE 802.15.4/ZigBee technology. With the acquisition of Figure 8 Wireless in January 2005, Chipcon now provides its customers with a true One-Stop-Shop ZigBee compliant solution including industry leading RF transceivers, ZigBee software, development tools and manufacturable reference designs.

Chipcon always considers our customer needs and reflects them in our product developments. As one of the ZigBee Alliance Promoters, Chipcon is committed to make ZigBee the common standard for residential, industrial and home automation applications.

### **OWHY ZIGBEE**

Other short-range standards such as Bluetooth and Wi-Fi are not designed for low power monitoring and control applications. With ZigBee, however, the case is different. ZigBee is the only standard that specifically addresses the typical requirements for wireless control and monitoring applications such as:

- O Large number of nodes/sensors
- O Very low system/node costs
- O Operation for years on inexpensive batteries
- O Reliable and secure links between network nodes
- Easy deployment and configuration
- O Global solutions

For end product companies it is much more cost effective to design applications based on the standardized ZigBee technology than creating a new proprietary solution from scratch. Furthermore, end product companies can obtain global solutions and independence of RF-ICs vendors, due to the 2.4 GHz standardized radio by IEEE 802.15.4.

Existing manufacturers of wired fieldbus technologies migrating to ZigBee will not only deliver installation cost savings to their customers, but also will reduce their product's bill of materials due to the cost effectiveness of ZigBee compliant solutions.

## True One-Stop-Shop Provider

Chipcon's strategy is to offer complete technology solutions including hardware, software, development tools, reference designs and support services.

The acquisition of Figure 8 Wireless, a leading provider of software, firmware and networking solutions focused on ZigBee, adds to our One-Stop-Shop strategy. Chipcon and Figure 8 Wireless creates the world's first true global One-Stop-Shop ZigBee solutions provider with the ability to offer complete, highly integrated and cost-effective solutions to customers worldwide.

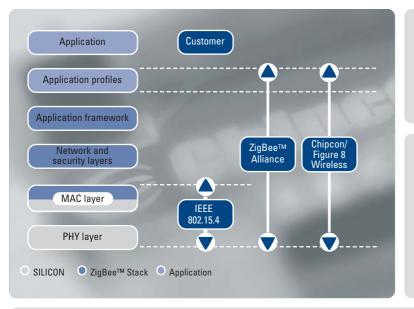
### **ZIGBEE SOFTWARE DEVELOPMENT SUITE**

- Z-Stack Industry leading ZigBee compliant protocol stack
- Z-Stack, protocol stack extensions
- Z-Stack Configurator
- Z-Stack Profile Builder
- Z-Trace (debug tool)
- Z-Tool (advanced test tool)
- ZigBee training
- Commissioning tools (Z- Commander)
- Gateways

### RF-ICs FOR IEEE 802.15.4/ZIGBEE

- CC2420 Industry leading IEEE 802.15.4/ZigBee RF transceiver
- CC2430 True System-on-Chip (SoC) solution for ZigBee with integrated 8051 microcontroller
- ZigBee hardware development kits
- High performance and robust reference designs
- IEEE 802.15.4 MAC software (free-of-charge)

Chipcon and Figure 8 Wireless – the # 1 ZigBee technology supplier.....work with the leader!



### **○** ZIGBEE CERTIFIED PLATFORM

Chipcon offers its customers a complete certified hardware and software ZigBee platform. The certification means that OEMs developing on this platform are ensured that their products are interoperable with other ZigBee certified platforms and customers will be able to form a single, cohesive ZigBee network capable of routing data for all applications on the network.

### **ABOUT CHIPCON**

Chipcon is a leading international semiconductor company that designs, produces and markets high-performance standard radio frequency integrated circuits (RF-ICs) for use in a variety of wireless applications. Chipcon's RF-IC products represent years of extensive research in the design of low-cost radios in standard CMOS and BiCMOS technologies. Chipcon Group ASA is the parent company and holding company that controls the activities of its wholly-owned subsidiaries Chipcon AS, Chipcon Inc. and Figure 8 Wireless Inc.



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