



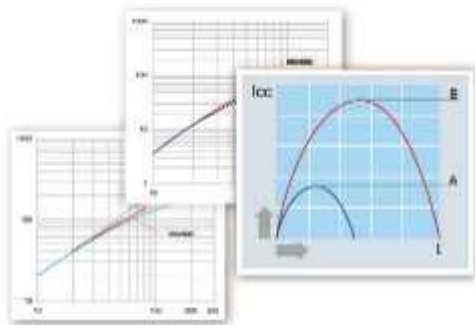
The world's first  
Circuit Breaker comes  
from ABB in Italy and it is  
connected to a handheld (PDA) via  
Bluetooth technology.

## Reference Application

### Wireless control of Electrical Circuit Breaker

ABB is a leader in power and automation technologies operating in more than 100 countries through out the world. They develop control systems, high/low voltage products, instruments, motors, drives, and robots.

In Italy, the world's first Bluetooth® enabled circuit breaker is jointly developed by ABB Corporate Research and ABB Sace. The product, called Emax, is a low voltage circuit breaker used to protect low voltage distribution systems and equipments.



#### Key features of Emax

From the front panel of the circuit breaker the operator configures parameters such as;

- Current limits
- Over current timers
- Diagnostics
- Event logging

#### Wireless access

All the parameters are also accessible using short-range Bluetooth wireless technology. Bluetooth technology is used to connect to a handheld computer, a PDA, running Windows Mobile 2003 with the circuit breaker.

This wireless access enables the operator to conveniently reach the circuit breaker even when installed in harsh environments where computers and cables wouldn't be functional.

The Bluetooth integration made by ABB Corporate Research is also made available for other ABB product divisions as the implementation is based on standard modules and is easily modified for similar requirements.

#### Bluetooth requirements

ABB Corporate Research and ABB Sace have used the OEM Serial Port Adapter provided by connectBlue as this module is developed for industrial application requiring high reliability. The module is being used in combination with an external Bluetooth antenna for mounting in the metallic casing. In addition, the module provides full Bluetooth Qualification and Type Approval minimizing certification cost and time to market for ABB.



*connectBlue's Bluetooth module enables the operator to control the Circuit Breaker wirelessly via his/her handheld (PDA).*

#### About connectBlue

*connectBlue is a leading provider of wireless solutions for demanding applications in segments like industrial automation, medical, instrumentation, diagnostics, logistics / transportation, vehicles and point of sales. Based on Bluetooth technology WLAN and ZigBee, connectBlue provides ready-to-use products and modules as well as custom design solutions in both hardware and software. [www.connectblue.se](http://www.connectblue.se)*

# connectBlue

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