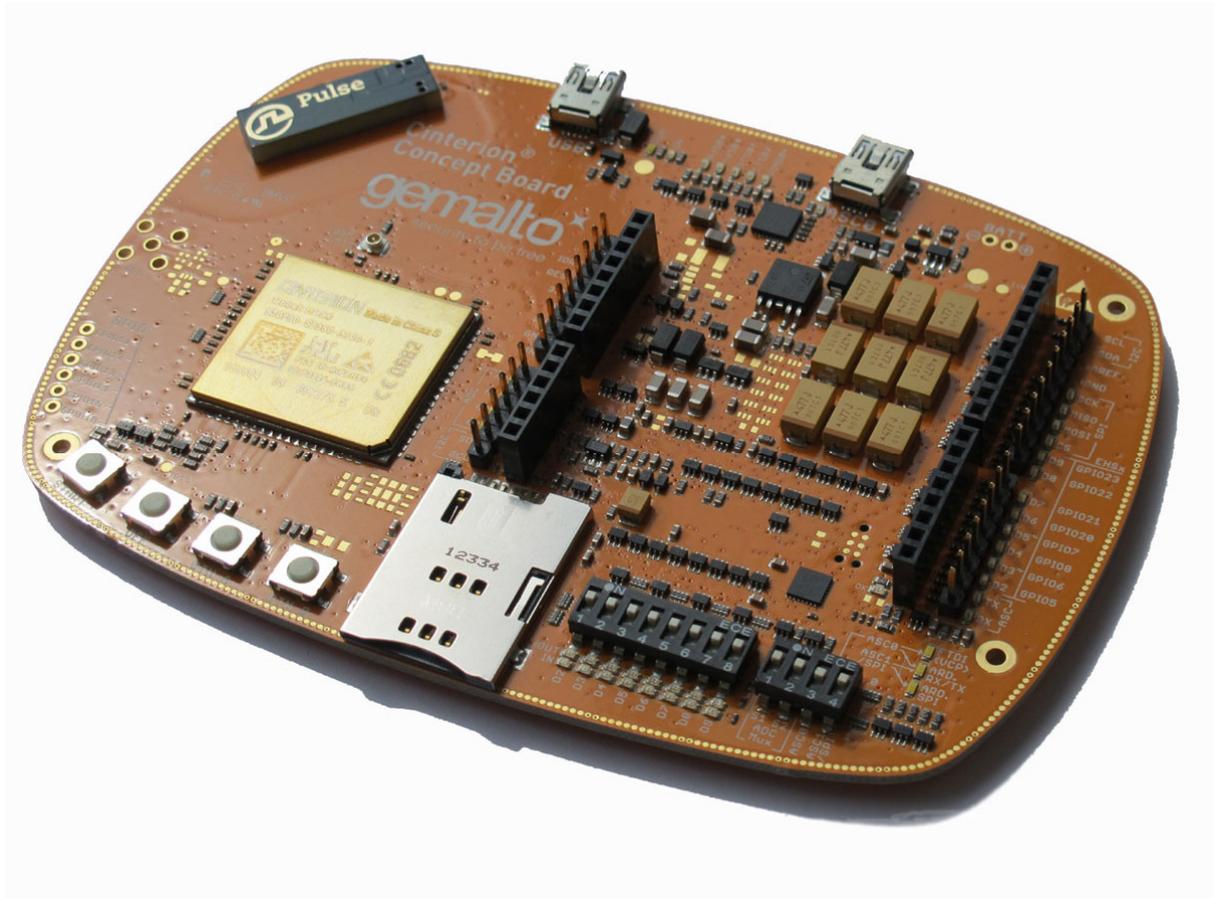


Gemalto (Cinterion) EHS6 Concept Board

Product Overview



The Gemalto (Cinterion) EHS6 Concept Board - a valuable tool for both embedded hardware designers and software developers wishing to explore the potential of adding 3G cellular connectivity to systems.

Introduction

Hardware designers requiring an off-the-shelf development platform for fast evaluation & system development can connect the Concept Board to Arduino-style sensor boards. The on-board EHS6 Java module with global 2G and 3G cellular connectivity can be used to host the application or as a wireless sub-system. Demonstration systems can be easily created for a fast track to prototyping.

Software developers wishing to create applications in Java with embedded wireless capability can quickly develop and evaluate concepts without focussing on the wireless hardware interfacing.

Key Features

As well as providing easy access to all of the EHS6 module interfaces, the Concept Board has a Shield Interface (following Arduino). Little to no hardware expertise is needed to connect all kinds of sensors and actuators. Wireless connectivity is provided by the Cinterion® EHS6 module and the on-board penta-band antenna.

Module & Frequency Bands	Cinterion EHS6 penta-band 3G (UMTS) + quad-band 2G (GPRS) UMTS/HSPA+: 800/850/900/1900/2100MHz GSM/GPRS/EDGE: 850/900/1800/1900MHz
SIM Cards / Interface	Mini SIM Card (standard GSM / 2FF): 3.0V, 1.8V
Antenna interface	Penta-band GSM/UMTS RF antenna on-board
Power Supply	Via USB interface Supports Li+ battery pack through 2-pin connector
Serial Interface	ASC0 via Virtual COM Port (VCP) Maximum baud rate 921kbps
USB Interface	Yes, EHS6 Windows Drivers also available.
User Buttons	- START - OFF - User button BTN-A - User button BTN-B
LEDS	Current configuration is displayed via on board LEDs.
Configuration	Two switch banks allow manual configuration of GPIO signal direction, ATC multiplexing and SPI/ASC sharing
External Interfacing	Shield Interface 8 GPIO lines with level shifters, 4 ADC inputs Access to all serial interfaces of EHS6 module

Applications

The EHS6 Concept Board can be used out-of-the-box without programming simply by connecting a USB cable from the board to a PC. The board is powered from via the USB cable from the PC and a terminal emulator program may be used to communicate with the EHS6 module via AT commands. The USB interface is also available for communications.

A quick-start guide is available which covers the initial set-up and a step-by-step walk-through of the following to allow users to quickly become familiar and start using the board:

- How to connect the Concept Board to your PC
- How to communicate with the EHS6 module through AT commands
- How to turn LEDs on and off
- How to make a phone call

Applications can be written in Java using an SDK available free of charge from Gemalto, based upon widely known tools such as Eclipse and NetBeans. Java offers easy and fast application development, high code reusability, easy maintenance, a proven security concept, on-device debugging as well as multi-threading programming and program execution.

The Java application can manage all radio, input/output interfaces and RTC features of the EHS6 module. Further information can be found in the Java Users Guide, available on the Gemalto Developer Zone – see <https://developer.gemalto.com/>

Further documentation regarding the Concept Board and other devices which support Java is available on the Gemalto M2M web-site <http://m2m.gemalto.com/>

