# BT815 Car Dashboard Demonstration

The Car Dashboard application aims to demonstrate the usage of a BT815 chip to construct a menu with objects and widgets to form a graphics rich display using simple instructions. Bitmap assets and fonts are stored in external flash and rendered directly to the display.

The demo setup consists of a PC, MM900A1A module and BT815 demo boards. The car simulator application is run on PC and dashboard information is rendered to a display module via an RS232 cable. MM900A1A has an FT900 as a host controller, UART interface to receive car dashboard information and QSPI interface to instruct the BT815 for screenshot construction. The BT815 demo board consists of a BT815 graphics controller, external flash, WVGA LCD with 24 bit RGB parallel interface, Goodix touch controller with I2C interface and speaker for audio and synthesized sound.

The application on the FT900 constructs a menu by displaying car dashboard bitmaps in the background and needle animation in the foreground in accordance with the values received from PC car simulator. The bitmap assets are stored in external flash and rendered directly to the display using EVE instructions. A pre-recorded car game is run in a loop in the car simulator and car engine parameters such as rpm, speed, engine temperature, fuel etc are rendered to the display module via a virtual com port. The communication between the MM900EV1A and the car simulator is via a USB UART bridge cable, with a command line interface to render car dashboard parameters.
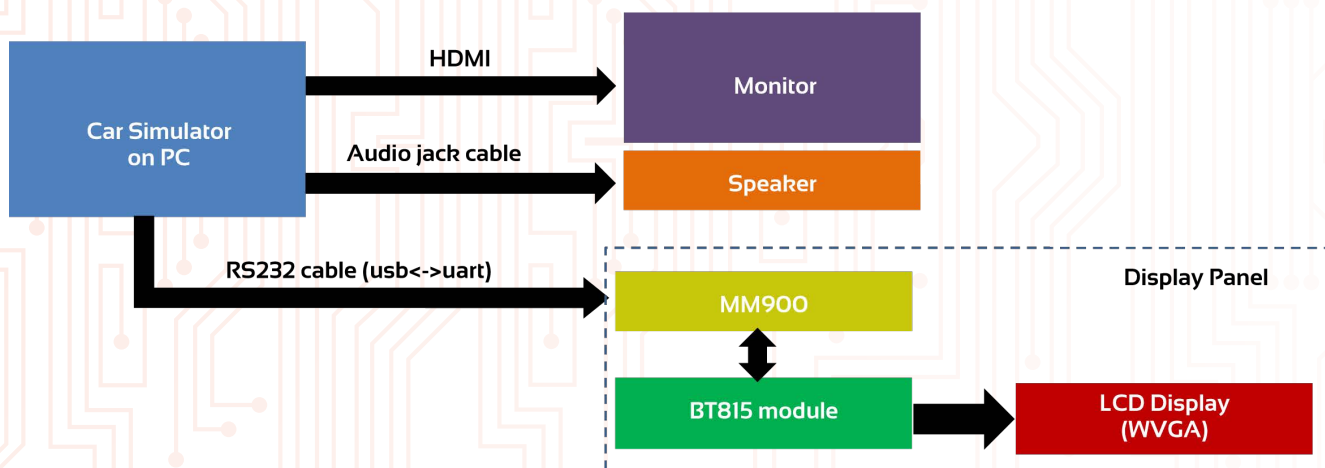
Modern Car Dashboard GUI

Retro Car Gaming GUI