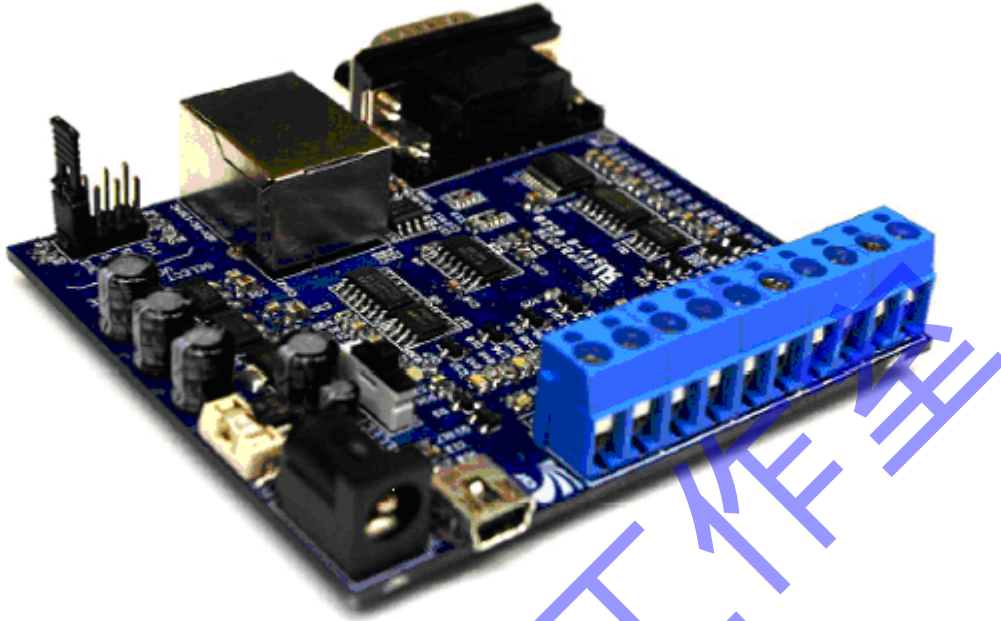


# CSR公司提供的 下载烧录器/仿真器

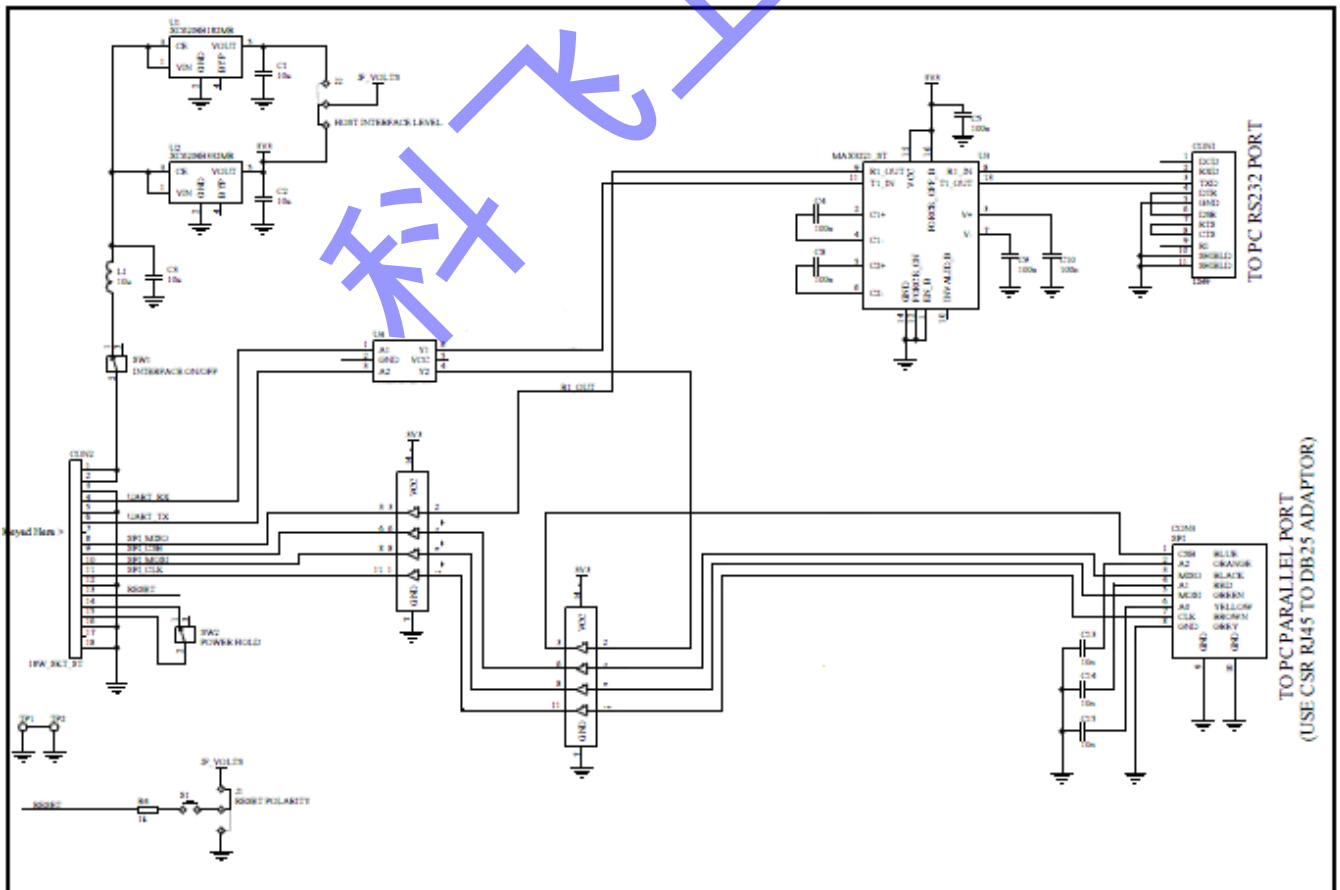
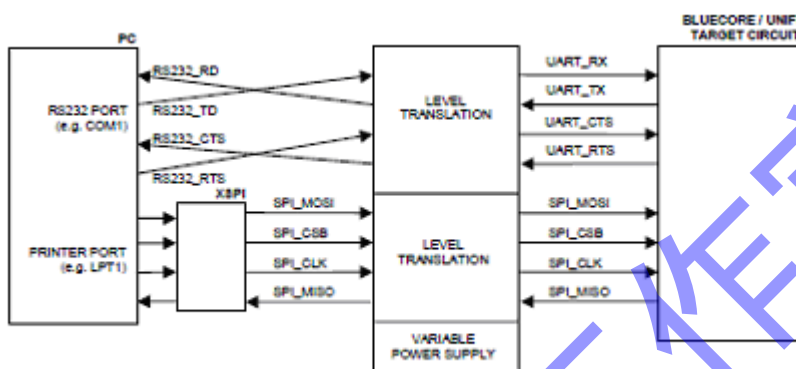
## 1 PLT to SPI interface.

The UART+SPI Level Shifter allows the UART and SPI interfaces of CSR BlueCore and UniFi ICs to be connected to a PC. The BlueCore or UniFi IC can be operated at I/O voltages of 1.2, 1.5, 1.8 or 3.3V whilst the PC sees +/-5.5V RS232 and 3.3V parallel port signals. The 1504 connects to the parallel port of a PC using an XSPI adapter (available from CSR).



The SPI channel is normally used for loading firmware (using `blueflash.exe`) or changing settings (using `pstool.exe`). The UART channel can be used to connect to PC software such as `btcli`, or `hyperterminal`. The 1504 is compatible with CSR's XIDE software development system.

## 2 LPT to SPI Converter



## 3 USB to SPI Converter



### Features:

- Programs and debugs all CSR ICs
- Provides SPI interface from PC USB to CSR IC
- SPI interface runs over CAT5 lead
- Compatible with CSR Casira development kits

Custom firmware, stored in flash memory, takes USB packets containing SPI commands and forwards the commands over SPI. The DSP:

- serialises the SPI commands
- uses the PIO pins to create the SPI\_MOSI, SPI\_CS and SPI\_CLK signals
- reads the SPI\_MISO line

USBSPI automatically reduces the SPI bit rate when it sees SPI data corruption.

Voltage level is set by default to 3.3V.

### Applications

- Program CSR IC flash memory via BlueFlash
- Change non-volatile settings in flash memory or EEPROM of CSR IC via PSTool
- Connect to CSR Casira via M1616 adaptor