



# PLUG-CR95HF-B

## Daughter board for the CR95HF 13.56 MHz transceiver IC

Data brief – production data

### Features

- Ready-to-use printed circuit board including
  - CR95HF multi-protocol transceiver IC
  - 47 x 34 mm 13.56 MHz inductive etched antenna and tuning components
  - SPI or UART connector for communication with the host

### Description

The PLUG-CR95HF-B includes a CR95HF contactless transceiver, a 47 x 34 mm 13.56 MHz inductive etched antenna and its associated tuning components.

The user must connect a host to the board through the UART or the SPI connector. It allows

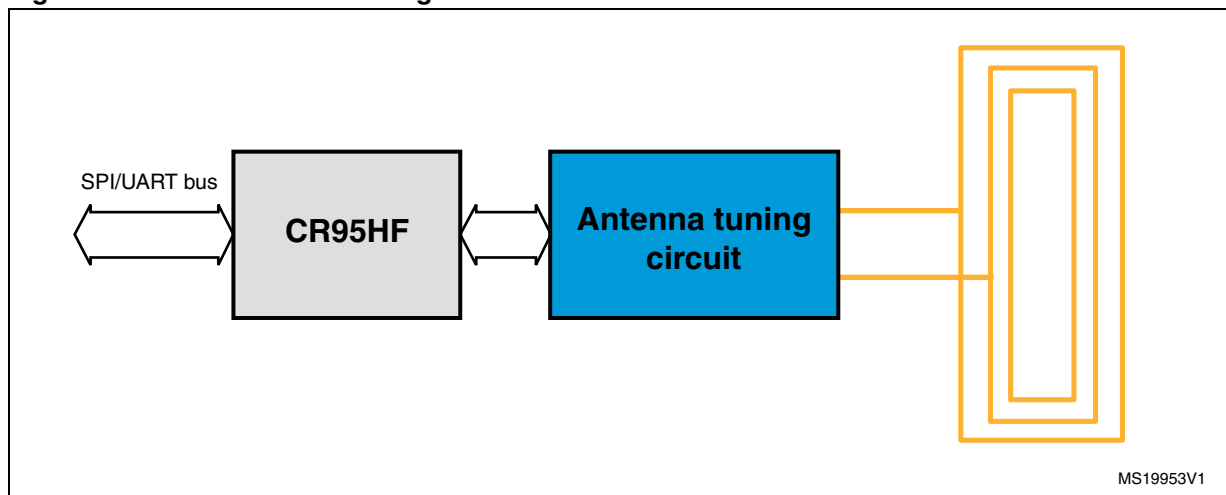


to control the 13.56 MHz CR95HF multi-protocol transceiver IC from the host.

The CR95HF acts as a slave. The host can configure the transceiver and send SPI or UART commands.

The PLUG-CR95HF-B board is powered through the VPS pin.

Figure 1. Functional block diagram

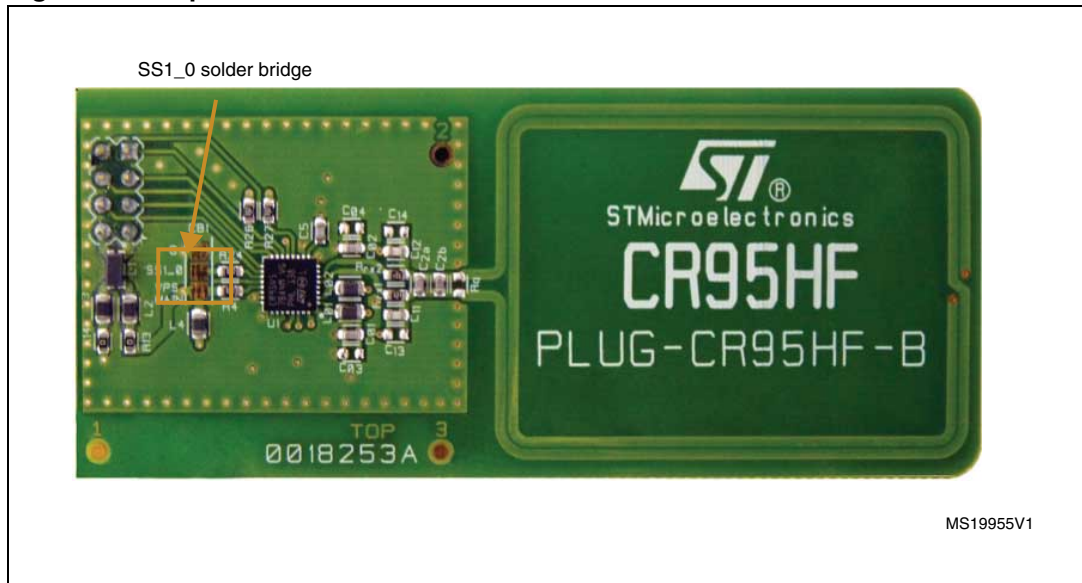


# 1 Hardware configuration

The PLUG-CR95HF-B daughter board can use either the UART or the SPI as external serial interface. SS1\_0 solder bridge allows to configure the CR95HF to use either the UART or the SPI serial interface (see [Figure 2](#), and [Table 1](#)).

Once the solder bridges are configured, the communication mode is automatically enabled by the CR95HF at power-on.

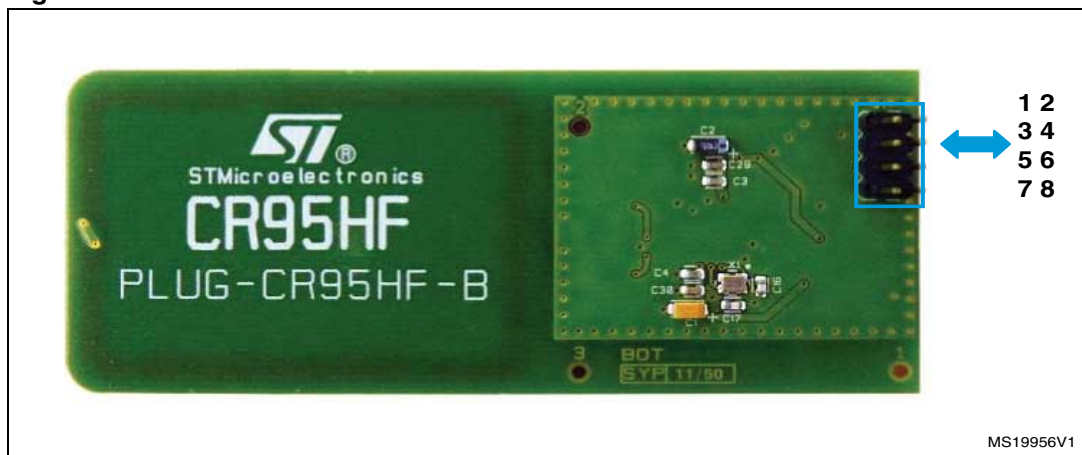
**Figure 2. Top view of the PLUG-CR95HF-B**



**Table 1. Solder bridge configuration**

Solder bridge	Communication mode between CR95HF and host	
	UART	SPI
SSI1_0	GND	VPS

**Figure 3. PLUG-CR95HF-B connector**



**Table 2. Description of connector signals**

Pin number	Signal	Description
1	UART_TX and $\overline{\text{IRQOUT}}$	UART transmit pin/interrupt output for CR95HF
2	UART_RX and $\overline{\text{IRQIN}}$	UART receive pin/interrupt input for CR95HF
3	$\overline{\text{SPI\_SS}}$ (NSS)	SPI slave select
4	SPI_MISO	SPI data, slave output
5	SPI_MOSI	SPI data, slave input
6	SPI_SCK	SPI serial clock
7	VPS and VPS_TX	Main power supply/power supply for RF drivers
8	GND	Ground

Refer to the CR95HF datasheet for a description of the signals.

## 2 Revision history

**Table 3. Document revision history**

Date	Revision	Changes
13-Feb-2012	1	Initial release.
15-Mar-2012	2	Swapped signal and description for pin 1 and 2 in <a href="#">Table 2: Description of connector signals</a> .

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