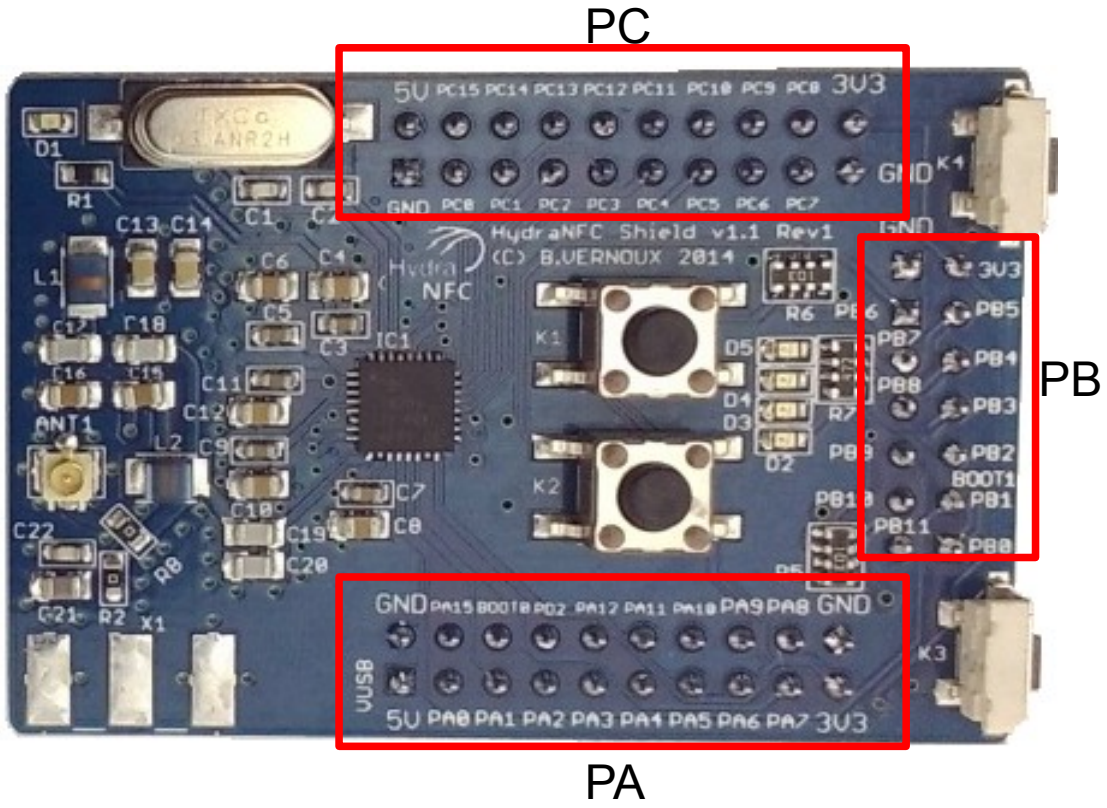
HydraNFC Modes & Pinout



Hydra NFC Pin	TRF7970A Pin	HydraBus Mode SPI With SS
PC0	IO2	+3V3 or Special Direct Mode
PC1	IO4_CS	SPI2 CS Master
PC2	IO6_MISO	SPI2 MISO Master
PC3	IO7_MOSI	SPI2 MOSI Master
PC4	IO5	Special Direct Mode
PC5	IO3	Special Direct Mode
PB1	ASK_OOK	Special Direct Mode
PB10	DATA_CLK	SPI2 CLK Master
PB11	EN (Chip Enable)	+3V3
PA1	IRQ	IRQ Input
PA2	IO1	+3V3
PA3	IO0	GND
PA5	SYS_CLK (Out)	SPI1 CLK Slave (sniffer mode)
PA7	MOD	SPI1 MOSI Slave (sniffer mode)

IO2: TX Enable (in Special Direct Mode)
IO3: TX Data (in Special Direct Mode)
IO5: Data clock output in Direct Mode 1 and Special Direct Mode
IO6: SPI MISO or Serial bit data OUT Direct Mode 1 or subcarrier signal Direct Mode 0
ASK/OOK: Selection between ASK and OOK modulation (0 = ASK, 1 = OOK) for Direct Mode 0 or 1. Can be configured as an output to provide the received analog signal output.
SYS_CLK: Options with 13.56-MHz crystal: Off, 3.39 MHz, 6.78 MHz, or 13.56 MHz

TRF7970A Pin 16 is used to supply the I/O interface pins (I/O_0 to I/O_7), IRQ, SYS_CLK, and DATA_CLK pins of the reader.