

ARDUINO SHIELD SRF

1. Description

The Ciseco SRF shield instantly transforms any Arduino style board into a fully wireless device. There are no jumpers to worry about, no configuration to be done, simply plug in and begin coding.

The shield utilises the world's best value, secure wireless module, the SRF. You can securely exchange data with all other Ciseco radio devices, including the ultra-long range ARF.

Designed for ease of use, the shield uses normal ASCII when transferring data, requiring no library or complex software. This means all your memory space is for code, not to drive the radio. All settings can be accessed or changed via standard text based

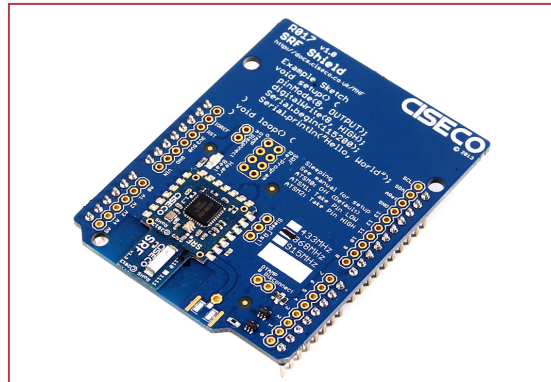
The shield has extra pads to allow for configurations such as; Over the Air Programming of your micro, low power sleep states and adding an external antenna to extend the range.

The SRF has flexible frequency and power settings, to cater for all global radio regulations; these are easily set in software.

The surface mount module used on the shield is available separately for those wishing to manufacture wireless products.

2. Features

- ETSI, FCC, CTick, CE compliant in all applicable ISM bands
- Long range, up to 5Km
- Plug 'n Play
- Supports "over the air programing" of the host Arduino (or other) microcontroller
- External antenna support for whip, SMA or u.FL connectors
- 2 low power sleep modes
- Fully supports Open LLAP IoT nodes via free to download source code
- Support for 65,000 networks (PANID)
- User control of duty cycle
- Heartbeat LED to indicate operation or digital RSSI level (software selectable)
- Supports point to point, point to multipoint, multipoint to point and multipoint to multipoint
- Veroboard friendly top layout



3. Applications

- Add wireless to any existing Arduino project
- Uploading programs from the Arduino IDE code editor "over the air"
- Remote Sensors
- Remote Actuators
- Remote controlled robots
- Remote Telemetry

4. Technical specs

Modulation:	GFSK
Encryption standard:	128 bit AES (pass phrase set via AT command)
Over the air data rate:	250Kbps (changeable via AT commands)
Serial baud rate:	115.2Kbps changeable via AT commands)
Operating Voltage:	3.3v (2v – 3.9v)
Power Consumption:	33mA 19mA (transmitting) 19mA (receiving)
Light sleep	0.147mA (147uA)
Deep sleep	0.002mA (0.2uA)
Tested range (actual will vary with environment)	
To a device with a chip antenna:	100-150m
To a device with a wire whip:	200-300m
Wire whip to wire whip:	700-1Km
9dB Yagi to wire whip:	1.2-1.6Km
9dB Yagi to 9dB Yagi:	3-5Km
Length:	68.6 mm
Width:	53.35 mm
Height:	12 mm
Weight:	16 grams