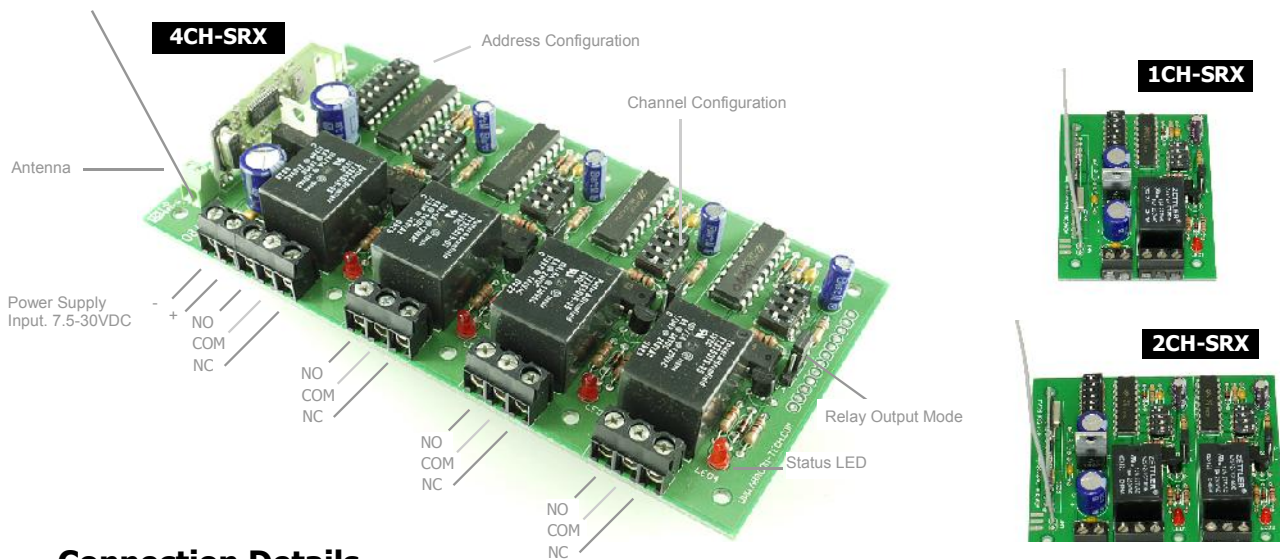




1/2/4CH-SRX RF Remote Control Receiver Module

The SRX series remote control receiver is extremely versatile with one, two or four *independently* configurable output channels. Each channel may be configured to either latch or to pulse, in response to a valid received command from the companion transmitter. The -SRX series receiver modules are also available with 8 relay outputs, which is essentially 2 stacked 4CH-SRX receivers.

Two additional revisions, the 4CH-SRX-ACT and the 4CH-SRX-ACR are designed for use with the ShadowTX asset tracking and RFID wireless access control transmitters. These revisions are also covered in this manual.



Connection Details

Power supply connection and relay outputs are all via the screw terminal blocks. The designation of each terminal is marked on the underside of the printed circuit board. The external power supply may be 7.5 VDC - 30 VDC, and be must be capable of supplying at least 500mA if all relays are to be energized simultaneously.

The relays are capable of switching up to 16A resistive loads at voltages up to 28VDC and 300VAC. Maximum relay switching power is 480W

Configuration

The system is supplied pre-configured and therefore reconfiguration may only be necessary to suite the user's preferences.

System Address:

The 8 position address DIP switch configures the system address and must match that of the transmitter. We do not recommend address settings of *all* switches set to ON or *all* switches set to OFF. The units are supplied with default configuration of switch 2 and 4 set to ON position and switches 1, 3, 5-9 OFF.

Channel Configuration:

The 4 position channel DIP switch configures its channel to respond to particular switch on the companion transmitter. Refer to the transmitter data sheet for matching switch code details.

Latched Mode / Pulsed Mode Configuration

Each channel may be independently configured to operate in latched mode or pulsed mode with the appropriate positioning of the 'mode' jumper.

Latched mode: Upon momentary activation of the associated transmitter key, the channel output relay will energize and remain energized until the next momentary activation of the transmitter, at which time the associated relay will de-energize.

Pulsed Mode: Upon momentary activation of the associated transmitter key, the channel output relay will energize briefly (~0.5sec) and then de-energize automatically. If the transmitter key is held down, the relay will remain energized for 0.5s after the key is released.

Antenna

The 1/2/4CH-SRX is supplied as standard with a 1/4 wave wire antenna attached to the board. An external (off-board) antenna may be used via an optional RPSMA board edge connector (Digi-Key # CONREVSMA003.062).

Enclosure

The 1/2/4CH-SRX is designed to drop into Hammond enclosure model 1599EBK which is available separately.

Technical Characteristics

Supply Voltage	7.5VDC-30VDC
Operating Current (standby)	10mA
Operating Current	
<i>One relay energized</i>	20mA
<i>Two relays Energized</i>	40mA
<i>Three relays energized</i>	60mA
<i>Four relays energized</i>	80mA
Relay Contact Rating (resistive)	16A (@28VDC) 480W
Relay Contact (1 Form C)	NO/COM/NC
Relay Output Mode	Individually Configurable: Latch or Pulse
RF Receiver Section	
Operating Frequency Options	433.92MHz , 868MHz, 315MHz or 914.5MHz
Sensitivity	-107dBm typical
RF bandwidth	+ - 200KHz typical
FM Deviation	+ - 25KHz typical

Disclaimer:

Technical specifications are subject to change without notice. Whilst every effort has been made to ensure the accuracy of the information contained in this document, ABACOM Technologies Inc. does not assume responsibility for any errors or omissions that may exist. ABACOM Technologies Inc. does not assume responsibility for any damage caused through use or misuse of their products and the onus lies entirely with the end user in determining the suitability of, and use of the product for any particular application. ABACOM Technologies Inc. products are not recommended for applications where human life may be at risk.

ShadowTX Applications

This section applies to applications using the ShadowTX RFID & access control transmitters only.

ShadowTX Compatibility: 4CH-SRX-ACT and 4CH-SRX-ACR receivers

The 4CH-SRX RF remote control receivers are compatible with the ShadowTX asset tracking, RFID, access control transmitters. Either the **ACT** or the **ACR** revisions of the 4CH-SRX, namely 4CH-SRX-ACT or 4CH-SRX-ACR are required when used with the ShadowTX transmitters. Care should be taken to ensure that either of these revisions are ordered for applications implementing with the ShadowTX. The standard 4CH-SRX will not operate correctly with the ShadowTX transmitters.

The 4CH-SRX-ACT and 4CH-SRX-ACR revisions operate slightly differently to the standard 4CH-SRX receivers as described below:

4CH-SRX 4 Position DIP switch setting:

Each channel must be configured to respond to a particular ShadowTX. The 4 position DIP switch of a channel on the receiver must be configured to the same setting as the associated Shadow TX SIP switch setting in order for the receiver channel and the associated ShadowTX to be paired. Refer to the ShadowTX manual for the correct settings.

8 Position Address DIP switch setting:

The ShadowTX have a default internal address preprogrammed in production, prior to shipping. This translates to DIP switches 2 and 4 set to ON of the 4CH-SRX-AC with the remaining switches set to OFF. This configuration is essential for the 4CH-SRX to respond to any ShadowTX. Custom address configurations may be customer requested prior to shipping.

Latch/Pulse mode:

For ShadowTX applications, the 4CH-SRX-AC channels output mode jumper should always be set in the "P" pulse position.

Relay Output Activation: (4CH-SRX-ACT)

When a ShadowTX signal is within range of the 4CH-SRX-ACT receiver, the associated channel relay will be de-energized.

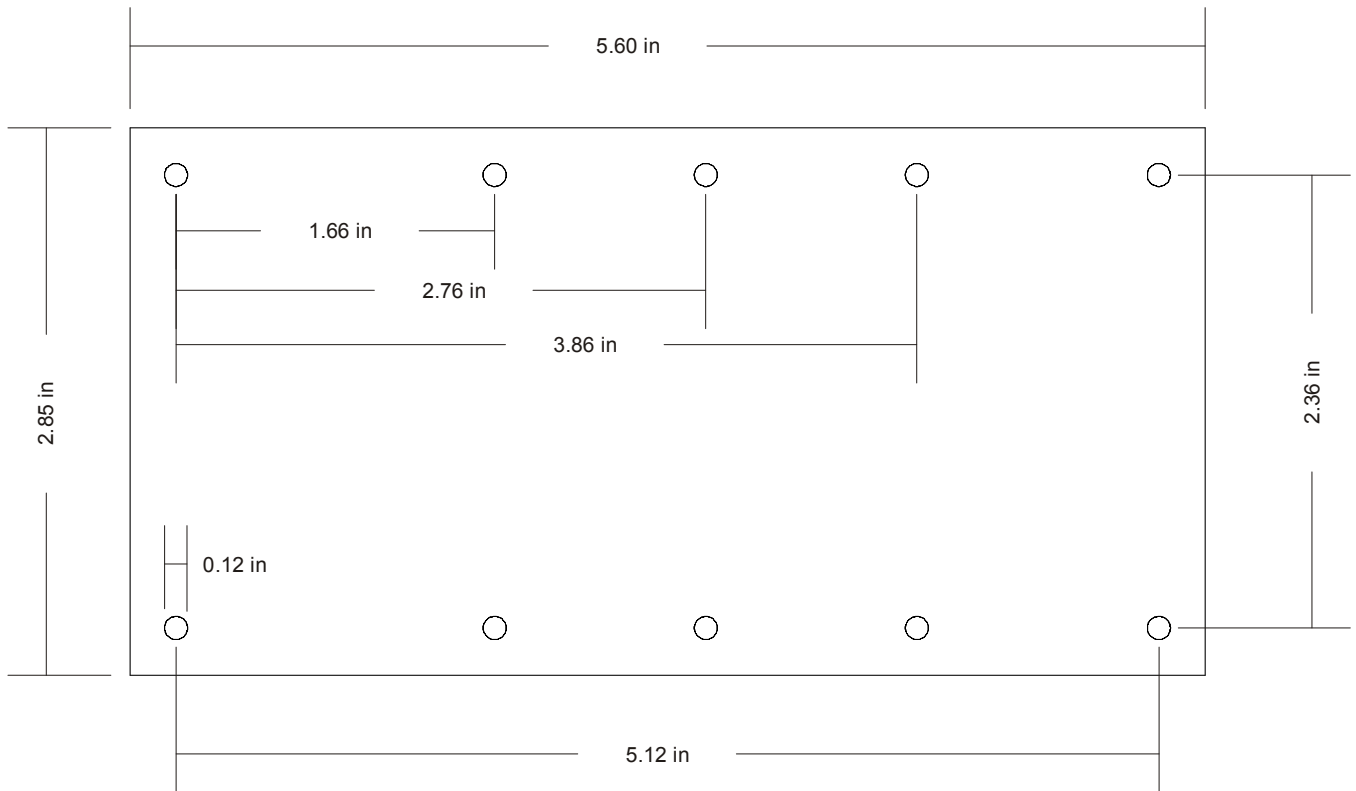
Conversely, when the ShadowTX is out of receiving range, the associated channel relay will energize and the LED will be lit to indicate this state.

The channels have an internal time delay of about 16 seconds from the time the ShadowTX goes out of range before the activation of the relay. However, when the transmitter comes back into receiving range the de-energizing of the relay will be instant.

Reversal of the relay output function: (4CH-SRX-ACR)

Some applications may require the reversed (opposite) relay output activation to that described above. Such applications require the 4CH-SRX-ACR version.

Mechanical Outline / Hole Dimensions



Notes:

1. The mechanical outline above shows all mounting holes and dimensions for the 4CH-SRX receiver
2. The leftmost 4 mounting holes apply to the 1CH-SRX receiver
3. The leftmost 6 mounting holes are for the 2CH-SRX receiver
4. The leftmost 8 mounting holes are for the 3CH-SRX receiver