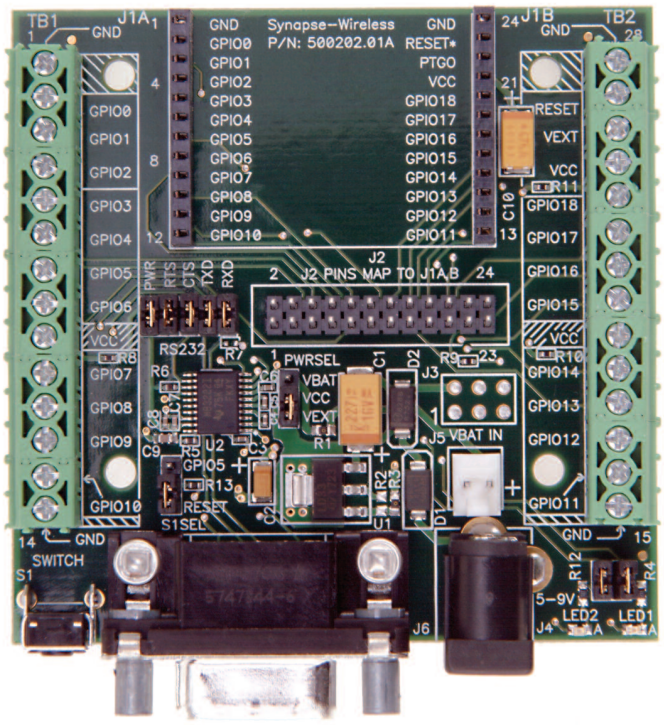
Wireless Technology to Control and Monitor Anything from Anywhere™

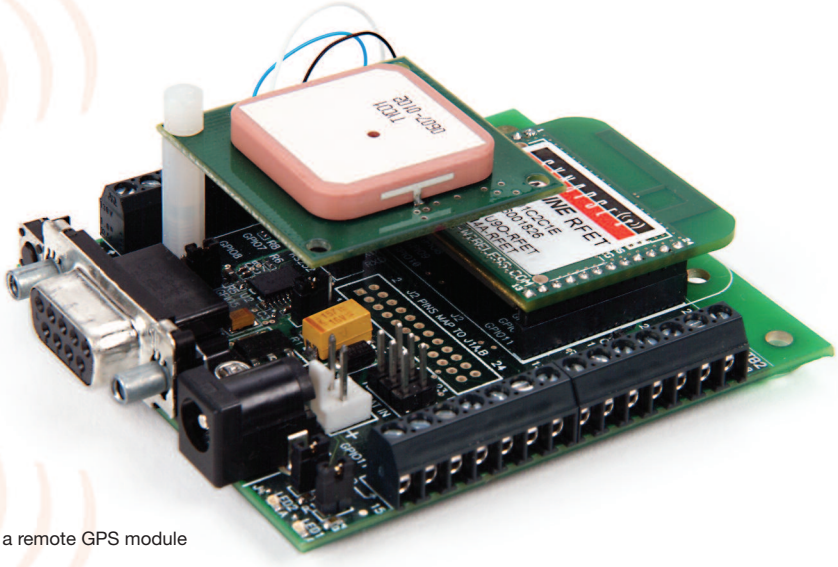
SNAP Node ProtoBoard SN171

Prototyping Board

With the **SN171 – ProtoBoard**™, Synapse makes it even easier to put the RF Engine™ to work in your application. Whether you're developing rapid prototypes or building a sophisticated finished assembly, the ProtoBoard provides a solid platform for embedded SNAP wireless applications. Our intent with the ProtoBoard is to not get in your way. To that end, the ProtoBoard has jumpers which enable all peripherals to be fully disabled – freeing all pins of the RF Engine for complete access by your application. Like all SNAP Nodes, the ProtoBoard may serve as the SNAP Bridge for connection to Portal® or a SNAP® Gateway™. It is also capable of true low-power operation, achieving a 2.5uA sleep state.



- Compatible with all Synapse RF Engine modules.
- RS-232 port with full hardware flow control (UART1) fully jumper selectable, can be completely "removed" from system.
- 2 status LEDs, yellow and green— can be disabled by jumper.
- Push-button switch, can be jumpered to Reset, GPIO, or disabled.
- Battery connector or power regulator option.
- Terminal blocks bring out all RF Engine pins and Vext (supply power).
- 2x12, 2mm pitch header for ribbon-cable access to all RF Engine pins.



Typical Application: Prototyping a remote GPS module

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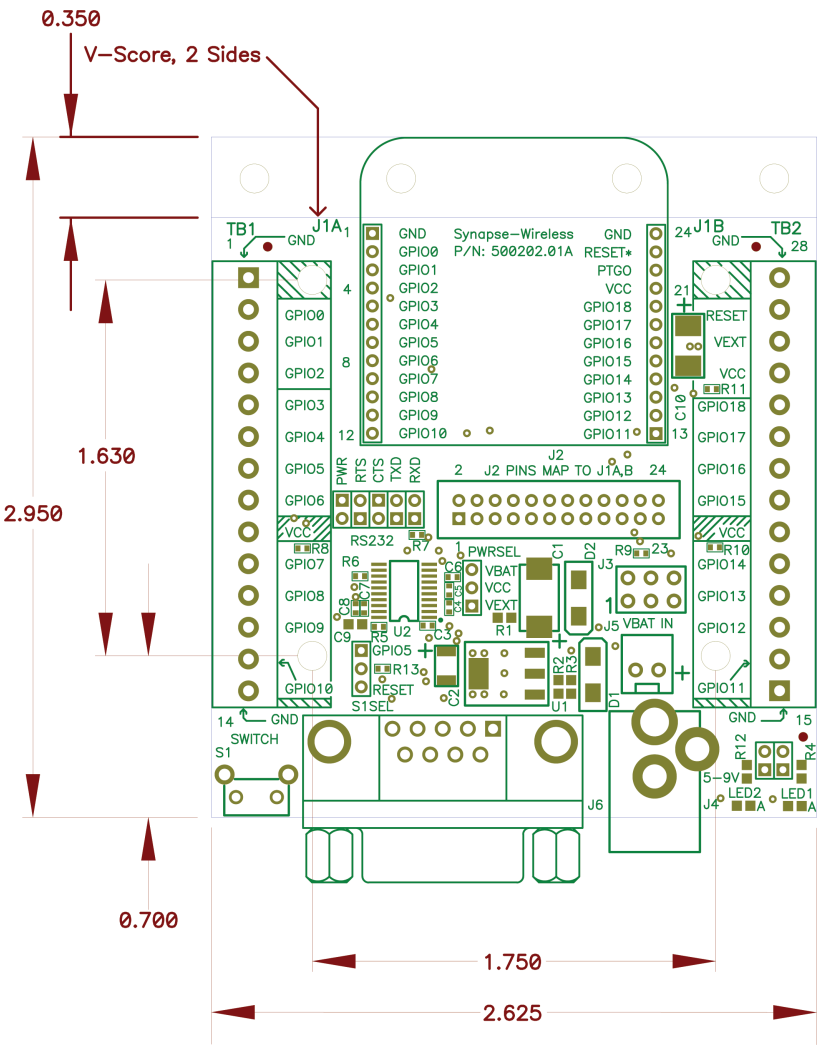

Terminal Blocks (XXX - XXX AWG)

1	TB1-1	GND
2	TB1-2	GPIO-0
3	TB1-3	GPIO-1
4	TB1-4	GPIO-2
5	TB1-5	GPIO-3
6	TB1-6	GPIO-4
7	TB1-7	GPIO-5
8	TB1-8	GPIO-6
9	TB1-9	Vcc
10	TB1-10	GPIO-7
11	TB1-11	GPIO-8
12	TB1-12	GPIO-9
13	TB1-13	GPIO-10
14	TB1-14	GND
15	TB2-1	GND
16	TB2-2	GPIO-11
17	TB2-3	GPIO-12
18	TB2-4	GPIO-13
19	TB2-5	GPIO-14
20	TB2-6	Vcc
21	TB2-7	GPIO-15
22	TB2-8	GPIO-16
23	TB2-9	GPIO-17
24	TB2-10	GPIO-18
25	TB2-11	Vcc
26	TB2-12	Vext
27	TB2-13	Reset
28	TB2-14	GND

Vcc = regulated 3.3v · ***Vext*** = external power (5v - 9v)

ProtoBoard Jumpers

RS-232

PWR .....Power to the RS232 Line Driver (UART 1)
CTS .....Flow control output (GPIO 9)
RTS .....Flow control input (GPIO 10)
TXD .....Transmit output (GPIO 8)
RXD .....Receive input (GPIO 7)

Power Supply

VBAT .....Powered using battery pack (2.7-3.4V)
VEXT .....Powered with external supply (5-9V)

Switch

GPIO5 .....Pushbutton connected to GPIO5
RESET .....Pushbutton connected to RFE reset

LEDs

LED1 .....Enable green LED (GPIO 1)
LED2 .....Enable yellow LED (GPIO 2)

External 5v - 9v DC power jack (2.1 mm)

Part Selection

Part No. SN171GG-NR

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