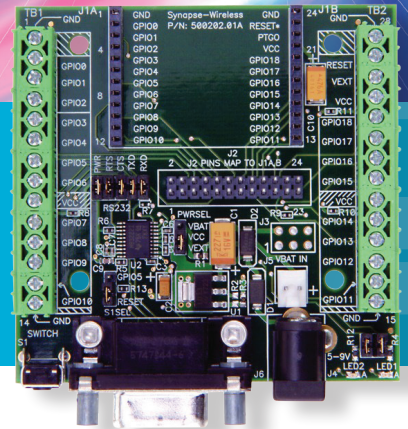# SNAP Node ProtoBoard SN171
Prototyping Board

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 that enable all peripherals to be fully disabled — freeing all pins of the RF Engine for complete access by your application. Like all SNAP Nodes, an RF Engine on the ProtoBoard may serve as the SNAP Bridge for connection to Portal® or a SNAPconnect.

It is also capable of true low-power operation, achieving sleep states as low as 0.3 μA.

- 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 the RF Engine pins and Vext (supply power).

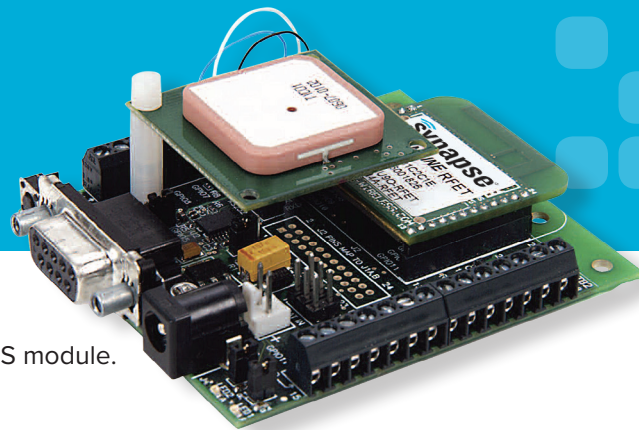- 2x12, 2mm pitch header for ribbon — cable access to all RF Engine pins.

For more information call or visit:
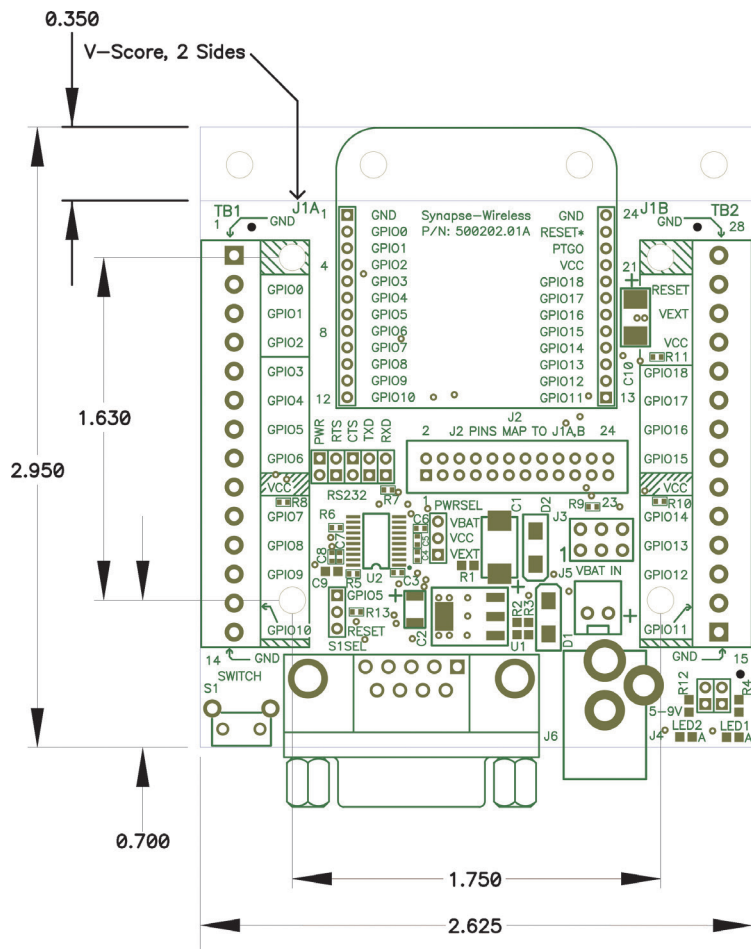
(877) 982-7888 // synapse-wireless.com

synapse®

SNAP Node ProtoBoard SN171

Typical Application:
Prototyping a remote GPS module.

Part Selection

Part No.	SN171GG-NR

Terminal Blocks (16–26 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

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 using 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)

POSITIVE
NEGATIVE