



Wireless Technology to Control and Monitor Anything from Anywhere™

# SYNAPSE Network Evaluation Kit

## EK2503 (900MHz)

Synapse proudly offers the EK2503 – the easiest way to experience the full power of our RF Engine™ hardware, SNAP® network firmware, and Portal® desktop software. Just power up the evaluation hardware and immediately you'll get a sense of the speed and simplicity of SNAP networking. Right out of the box, the devices are communicating in a full mesh network. Install the Synapse Portal software on your Windows PC (2K, XP, Vista), MAC or Linux and you'll begin to experience the true power of an end-to-end integrated system. More than just a diagnostic or commissioning tool, Portal is a complete wireless application development environment. You have everything you need to create and wirelessly deploy your embedded application.



### Hardware

SNAP Nodes: 2 Demo Boards  
1 SN171-ProtoBoard  
1 SN132-SNAP Stk  
1 SN111-DemoNode

*EK2503 SNAP Nodes come pre-loaded with SNAP, including a sample application ready-to-run out of the box, in a full mesh network.*

### Software

The evaluation kit includes Portal, Synapse's revolutionary wireless application development environment. This easy-to-use graphical interface provides everything you need for end-to-end control of your SNAP network.

- Interactively control and monitor all nodes on the network.
- Modify device behavior (embedded scripts) wirelessly.
- Design, test, verify and deploy your application in record time.

Portal includes a variety of sample applications demonstrating the power of Synapse's embedded Python engine, SNAPpy™.

- SNAP - Instant-ON mesh network stack.
- Complete end-to-end solution, hardware and software – device to desktop.
- Everything you need to interactively prototype your application.
- Portal Software – wireless application development environment.
- Instructive example scripts demonstrate the power of SNAP.
- Step-by-step User's Guide.
- Includes all required cables, power supplies and connectors.

**Comes with AES-128 encryption for secure applications.**



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### Portal

This easy-to-use graphical user interface gives you access to control and monitoring functions that deliver complete network visibility and management. With Portal®, you will see wireless devices graphically and control them individually or collectively, monitor activities, keep event logs, run scripts, and much more.

### SNAP

SNAP® is Synapse's revolutionary wireless mesh networking firmware. Representing a leap-forward in embedded intelligence, SNAP is built on a foundation of peer-to-peer networking and free-form RPC calls. The result is the first system in its class supporting the capability to interactively develop custom applications using a modern, dynamic programming language. Develop your application wirelessly, in minutes, right before your eyes.

### SNAP Nodes

The EK2503 kit includes 2 SNAP Demo Nodes and an SN171 - ProtoBoard that will provide a complete network and evaluation platform right out-of-the-box. Electrical specifications can be verified and examined under application specific conditions. And your own sensors or actuators can be connected to the SN171 ProtoBoard to evaluate real-time application performance.

### SNAP Demonstration Boards

Want to see a SNAP network in action right away? These boards have the on-board peripherals to demonstrate powerful monitoring and control capabilities right out of the box. You can, display link-quality or other parameters on the 7-segment LEDs, wake up with a button-press.

Several of Portal's sample scripts make specific use of these boards. Modify one of the sample scripts to make your own application and demonstrate for yourself the power of SNAP!

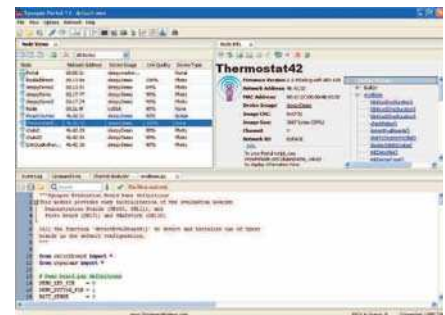
### SN171 SNAP Node ProtoBoard

With terminal blocks exposing all RF Engine pins, a jumper-selectable RS232 port, LEDs, and pushbutton, the ProtoBoard is a playground for your wireless imagination. A low-power device with so much digital and analog capability that's programmable in a modern high-level scripting language makes the ProtoBoard pretty unique. Doing all this with full-mesh wireless networking is truly amazing!

### RF Engines

So that you can fully evaluate the performance of Synapse RF Engines, we include three RF300PD1 modules with external (SMA) antennas.

Our primary objective at Synapse is to move our customers from concept to wireless network deployment as quickly as possible. With the Synapse Network Evaluation Kit, you can experience it for yourself!



Portal desktop software

### EK2500KitContents

Qty	Part No.	Description
1	SN111F5-NR	Demo Node Board with RF Engine
1	SN132H0-NR	SNAP Stick
3	RF300PD1	RF Engine SNAP Ext Ant. 915MHz
1	SN171GG-NR	ProtoBoard
1	AC11001	6 ft. Serial Cable
1	LinxANT-916-CW-RCL	Quarter-wave 4" Dipole Ant. w/RPSMA
2	AC13000	9V 350 ma DC Power Supply
1	AC13002	Battery Holder with on/off switch
2	AC13001	AA Alkaline Batteries
1	AC14002	Documentation – Downloaded from Customer Forum web site
1	SW24000	Portal Software – Downloaded from Customer Forum web site

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