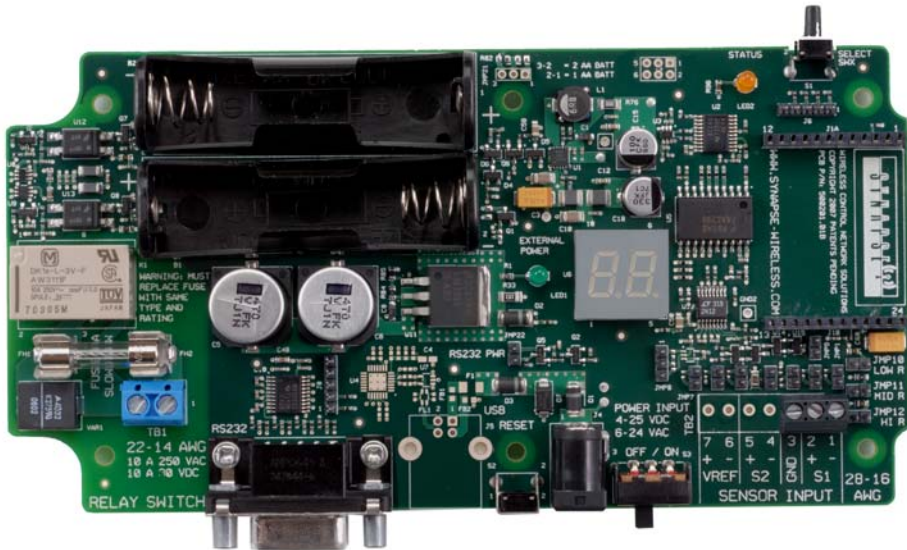# Synapse End Device (ED)

✔ 2.4 GHz 802.15.4 / ZigBee platform
✔ For SNAP, full ZigBee® or custom network applications
✔ Available with embedded or external antenna
✔ 200 ft to 3 miles Very low power, low system cost
✔ Very Low Power (as low as 47 uA)
✔ On board Signal strength indicator available
✔ RS-232 Input
✔ Fuse protected load Switching

The Synapse End Device™ is the workhorse of the Synapse® SNAP™ Network. The End Device comes standard with 1 sensor input and 1 relay for load switching. (10 Amp max at 120/220 V) Devices can be ordered with multiple sensor inputs, including a 24-bit A/D converter.

Devices are pre-loaded with Synapse Network Application Protocol™ (SNAP). SNAP-based networks are self-forming so when you power-up a SNAP-based device, it is automatically recognized by the Synapse Coordinator™ and incorporated into the network without any user intervention. In addition, devices can be configured via Synapse Portal Software

Synapse End Devices are used to acquire data from a variety of sensors and to control a variety of actuators. These End Devices are designed from the ground-up to be extremely efficient in terms of power. A SNAP-based End Device – including its plug-in Synapse RF Engine™ – can consume as little as 47uA, which means these units can actually run for the specified shelf-life of the battery used to power them!

Product Features:

Feature	Description
RS-232 Port	Full RS-232 with HW flow control (RTS/CTS) 9-pin D-sub
Display	2 Digit seven-segment LED
Input Power	4 to 25 VDC wall transformer 2 - AA batteries
Select Button	User function definable
Status LED	User function definable (Yellow)
External Power LED	Indicates when power from AC transformer or USB is present
Reset Button	Resets all functions
Voltage Sense	Intelligent SW control based on input power source Low battery indication, power savings if battery powered
Power Switch	ON/OFF switch for End Device
Expansion Header	A 5-pin header with 4GPIO and GND
Relay Output	Easy terminal block wire attach 120/240 VAC @ 10A Up to 30 VDC @ 10A Optically isolated Over current protection fuse
Sensor 1 Input	Easy terminal block wire attach Resistive type @ 10-bit ADC

Part Selection:

Part No.	Antenna	Flash Memory	A/D	ZigBee Mode
ED111F5-D5	External	32 KB	10-bit	End Device
ED111F5-85	F type	32 KB	10-bit	End Device
ED111F5-C5	F type	32 KB	10-bit	End Device

www.synapse-wireless.com