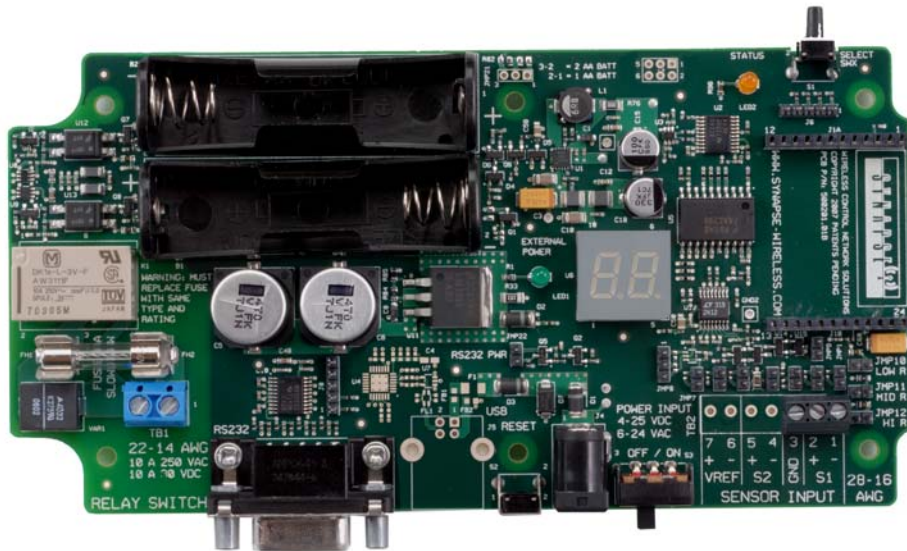


## Synapse End Device (ED)



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

All specifications are subject to change without notice. All Synapse products are patent pending.

