



E-Control Systems, Inc.

# IntelliMesh™ Mesh Router/Repeater

Mesh-11



Model Mesh-10 (above)

## Features

- Receives and Routes/Relays messages in an IntelliSense™ Network
- Extends the range and reliability of an IntelliSense™ network
- 2.4 GHz operating frequency for worldwide deployment
- High power radio to 50 mW (+17 dBm)
- Supports Zigbee® Wireless Standard
- Battery back-up
- Outdoor range up to 1 mile (1.6 km)
- Completely integrated solution with IntelliGate™, IntelliSensor™, and FusionLive™ Software
- No hardware configuration needed (IntelliMesh™ automatically join network)
- Firmware can be updated wirelessly (over-the-air)
- Conformal coated board for moisture rich operating environments
- Optional NEMA enclosure for harsher environments

## Product Description

E-Control Systems' IntelliSense™ Mesh Router, also called IntelliMesh™ is a wireless repeater used to extend the distance of an IntelliSense™ wireless sensor network. Its sole function in a normal wireless system is to relay wireless data between IntelliSensors™ (Sensors) and IntelliGates™ (Gateways). If no available gateway exists, the meshed router is smart enough to relay its data to another meshed router that is closer to an available gateway. As a result, IntelliMesh™ increases the distance, redundancy, and scalability of the wireless sensor network.

The IntelliMesh™ Router is a cost effective, wireless monitoring system using the Zigbee® standard. Combining the key components of the IntelliSense™ network (IntelliSensor™, IntelliGate™, IntelliMesh™, and FusionLive™) allows easy creation of a centrally managed monitoring application. Applications include, but are not limited to:

- Food Service (HACCP Compliance / NAFEM Data Protocol)
- Medical / Pharmaceutical (FDA 21 CFR Part 11 Compliance)
- Refrigeration (HVAC, Heating, Cooling)
- Industrial

General Specification	
<b>Radio</b>	802.15.4 Complaint, 2.4 GHz DSSS (Direct Sequence Spread Spectrum)
<b>Output Power</b>	50 mW (+17 dBm)
<b>Message Transmission</b>	xx mSec
<b>Antennae</b>	Wired Whip
<b>Range</b>	Up to 1 mile (1.6 km) Outdoor Up to 400 ft (120 m) Indoor
<b>Operating Temperature</b>	-40°C to 85°C
<b>Operating Humidity</b>	0 to 100%, non-condensing
<b>Dimensions</b>	3.290" x 2.420" x 1.000" 84mm x 61.5mm x 25.4mm
<b>Mounting</b>	2 screws or double-sided tape
<b>Power Terminal Connection</b>	12-26 AWG (Wire Size)



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