

# RV-N55-3 RAZN Data Sheet

RV-N55-3 RAZN  
RV-N58 PAIRS

## Remote Controller for LIGHTS, VALVES, PUMPS ...

A Remote Autonomous Zone Node is an Automated Peripheral for controlling things in



remote areas with a compact, cost-effective, package.



Works over miles. Flexible inputs and outputs and secure communications. **Together: These are a complete Autonomous Solution. Depends on needs for solid state relays.**

## Product Overview

### Automated Irrigation Management

RAZN was created to optimize water use for agriculture, farms, campuses, and large areas. The RAZN system has a long-range wireless network of remote controllers and is useful in isolated areas of water-limited geographically areas.

### Long Range Wireless Operation

Many RF options, super long-range communication. 1/2W to 5W UHF, VHF; 50mW-1W ISM LoRa. Verify operation and quality of connection in the field from 1 to 50 miles.

### High Performance Interfaces

This product has a number of interface options.

- A. **Ethernet.** Connect to a LAN, the Internet, Cloud, or PC/Server. The device can be a TCP client or server.
- B. **Serial Port.** RS485.
- C. **WebGIU.** HTML website server built in to use a Web Browser to access statistics, settings, and control IOs.

### Turn Things On and Off

Use Buttons, Switches, or WEBGUI to turn things on and off. And the remote Servant outputs DC or AC power from Terminals on port A. Turn lights, pumps, valves, alarms, relays, or whatever you want to remotely control. Each **SV** Switched Voltage output is controlled in real-time by the **BI** Button inputs.

### Reliable Wireless Connection

This communicates wirelessly over many miles, and the RAZN confirms messages and shows the status of remote Servant on the LEDs of the master.

### 8 **SV** Switch Voltage Outputs,

Terminals to output voltages to control lights, valves, pumps,... in isolated areas. LEDs show output status on or off.



### 8 **BI** Button Inputs,

Most have 8 button inputs to connect buttons to to control the local **SV**



terminals or remote RAZNs with **SV** terminals in isolate areas.

### Autonomous Operation Also

Along with all remote control features, you can setup the RAZN to also run Autonomously, so this peripheral will reliably do what you want it to do, and if your computer, network, cell service, or whatever fails, the RAZN's autonomous features will keep working and save your isolated things.

### A Myriad of Ways to Use This:

Point-to-Point: Two RAZNs can work together by themselves and control what you want in isolated areas.

You can use 2-200 of these RAZNs to do what you need to control in isolated areas.

### Secure Data

Data encryption is in wireless communication that uses encrypt transmissions with AES128.

### STATUS LEDs

The RAZN has power LED and Communication LED to show that these are working. The master as LEDs to show the status of the remote RAZN, and the remote RAZN with SV outputs has LEDs to show its output status.

### Other Notes

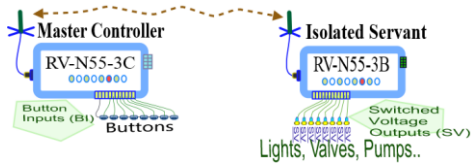
The IO pins have great ESD and over-voltage protection. DC power in is reverse and over-voltage protected. Very robust. Internal temperature and voltage monitoring for diagnostics. LEDs display the status of communications and power.

The next page shows the architecture of several ways to use the RAZN.

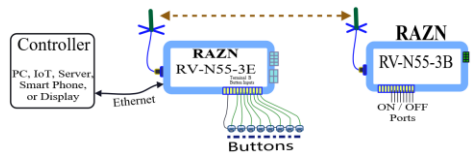
### RV-N55-3B RAZN With Masters

RV-N55-3B 3G has 8 switched power outputs  
RV-N55-3C Master controls the Servant in  
isolated area with long-range wireless link.

#### RV-N58-2CB Pair



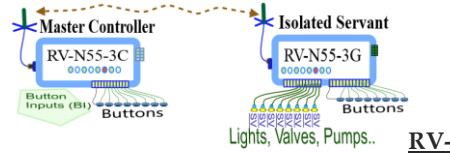
RV-N55-3B controlled by PC, IoT, Smart  
Phone... RV-N55-3E Ethernet interface connects  
to servers or IoT, to remote control the RAZN and  
buttons will work also.



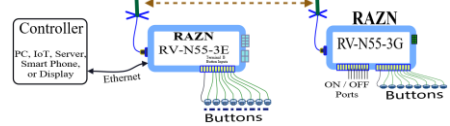
### RV-N55-3G RAZN Versions

RV-N55-3G has 8 switched power outputs and 8  
button inputs. Remotely control things and locally  
push buttons as needed. Master Controller  
connects to a RAZN in a remote Isolated area.

#### RV-N58-2CG Pair



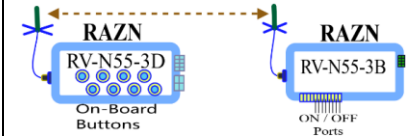
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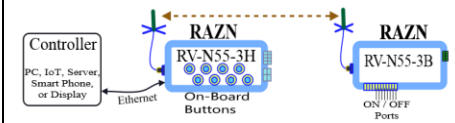
### Master Controller Versions

RV-N55-3D has 8 buttons on top the enclosure.  
To remotely control things, locally push buttons  
as needed to turn remote SV terminals on or off.

#### RV-N58-2DB Pair



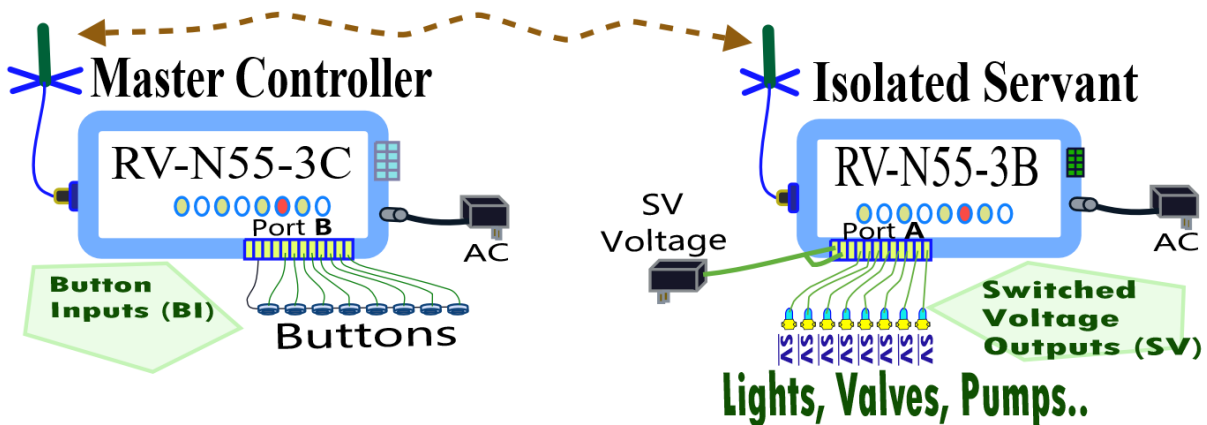
RV-N55-3H has 8 buttons built onto the  
enclosure. To remotely master control things,  
locally push buttons as needed. Your Controller  
and RAZN can connect to the RV-N55-3H via  
Ethernet to communicate to a RAZN in an  
isolated area.



Plug In Buttons to control what you want.

### Preset Features on All Versions of the RV-N55-3

A Master RAZN Controller has inputs for buttons or switches, and each one controls the SV outputs on the Isolated Servant RAZN using the long-range RF connection. Pressing a master Button Input (BI) turns on Switched Voltage (SV) terminal outputs in the Servant. The RAZN is powered by a 12V AC power supply, and the SV output terminals are whatever the SV voltage input is on Port B. Put AC or DC input voltage in



### Raveon Technologies Corporation



2320 Cousteau Court  
Vista, CA 92081  
760-444-5995  
sales@raveon.com



[www.raveon.com](http://www.raveon.com)