

## SONNET WIRELESS REPEATER ROUTER-SENSORS RF-RR SERIES

### DESCRIPTION

The **Sontay RF-RR Series** of SonNet wireless routers-sensors are used in conjunction with the SonNet **RF-RX20** or **RF-RX40** receiver units, and RF-RS series of battery powered wireless sensors, and are used to route signals from battery powered nodes and other routers to the receiver module, where the signal strength of a direct path is not sufficient for reliable communications.

Each repeater router can support a maximum of 16 'children', which can consist of a maximum of 8 battery powered nodes and 8 routers, or up to 16 routers if there are no battery powered nodes. Consideration should be given to network planning for redundancy in case of router failure or damage. Routers automatically find the best path back to the receiver, which may be directly to the receiver or via other 'parent' routers.

### FEATURES

- **Proven 802.15.4 low power network**
- **Complete range of sensor types**
- **Allows networks to be expanded**
- **Self-healing tree topology**
- **Lower installation costs**
- **Easy to install and commission**



Plant Housing  
Router-Sensor



Space Housing  
Router-Sensor



### SPECIFICATIONS

#### DEVICE OPERATION

Supply Voltage	24V AC/DC, 300mA
Sensor Type	Repeater only no sensor
Accuracy	No degradation of accuracy
Indication	Two, Power status LED & Network activity LED
Controls	Not Specified
A/D resolution	10 bit resolution
Mounting	
RF-RR-600	Two mounting holes for IP64 box
RF-RR-T-900	Wall mount, vertical, indoor use only
Wiring	Two terminals for power
Operating Temperature	14° to 122°F (-10° to 50°C)
Operating Humidity	0-90% RH non-condensing
Construction	ABS plastic, flame retardant, UL94-V-0
Enclosure Rating	
RF-RR-600	IP64 (IP65 when lid is secured w/screws)
RF-RR-T-900	IP30, Indoor use only
Dimensions	
RF-RR-600	4.6"H x 4.2"W x 2.0"D (11.6 x 10.6 x 5.2 cm)
RF-RR-T-900	3.3"W x 3.3"H x 0.9"D (8.5 x 8.5 x 2.3 cm)
Weight	
RF-RR-600	0.26 lb (0.12 Kg)
RF-RR-T-900	0.79 lb (0.36 Kg)
Warranty	3 year

#### RADIO TRANSCIEVER

Protocol	Proprietary Healing Mesh (Sontay), 128 encrypted
Frequency	2.4 GHz w/16 channels automatically selected
Modulation	Direct Sequence Spread Spectrum (DSSS)
Transmit Power	10 mW (10dB)
Receiver Sensitivity	-102dB
Open Air Range	328 ft. (100m) open air
Transmission time	5 ms turn around time
Transmission Interval	Transmits on every reception
Antenna	Internal board, 360° pattern
Channels	16 channels automatically selected
Device Addresses	50 transmitters per receiver
Programming	In field w/ laptop/Free SW and USB Cable
Repeater Capable	Yes
Compliance	FCC ID: OA3MRF24J0MA, IEEE 802.15.4-2006, CE, RoHS

### ORDERING INFORMATION

MODEL	DESCRIPTION	MODEL	DESCRIPTION
RF-RR-1000	Room temperature sensor/router, 24VAC	RF-RR-T-322	Duct temperature sensor/router, 150 MM probe, 24 VAC
RF-RR-1000-MS	Room temperature sensor/router, 24VAC, override button	RF-RR-T-331	Outside air temperature sensor/router, 24 VAC
RF-RR-1000-SP	Room temperature sensor/router, 24VAC, set point	RF-RR-T-332	Outside air temperature sensor/router, with rad. Shield, 24 VAC
RF-RR-1000-MS-SP	Room temperature sensor/router, 24VAC, override button, set point	RF-RR-T-341	Immersion temperature sensor/router, 150 MM probe, 24 VAC
RF-RR-RH-1000	Room humidity/temperature sensor/router, 24VAC	RF-RR-T-351	Clamp-on temperature sensor/router, 24 VAC
RF-RR-RH-1000-MS	Room humidity/temperature sensor/router, 24VAC, override button	RF-RR-T-555-2	Flying lead temperature sensor/router, 2M, 24 VAC
RF-RR-RH-1000-SP	Room humidity/temperature sensor/router, 24VAC, set point	RF-RR-T-555-5	Flying lead temperature sensor/router, 5M, 24 VAC
RF-RR-RH-1000-MS-SP	Room humidity/temperature sensor/router, 24VAC, override button, set point	RF-RR-R-622	Duct humidity and temperature sensor/router, 24 VAC
RF-RR-CO2-1000	Room CO2 sensor/router, 24VAC	RF-RR-R-631	Wall humidity and temperature sensor/router, 24 VAC
RF-RR-CO2-RH-1000	Room CO2/humidity/temperature sensor/router, 24VAC	RF-RR-R-632	Outside humidity and temperature sensor/router, 24 VAC

#### RELATED PRODUCTS

RF-RX20	Receiver with 20 x 0-10VDC outputs
RF-RX40	Receiver with 40 x 0-10VDC outputs