

# VRF System Controller UC722

*Milesight*



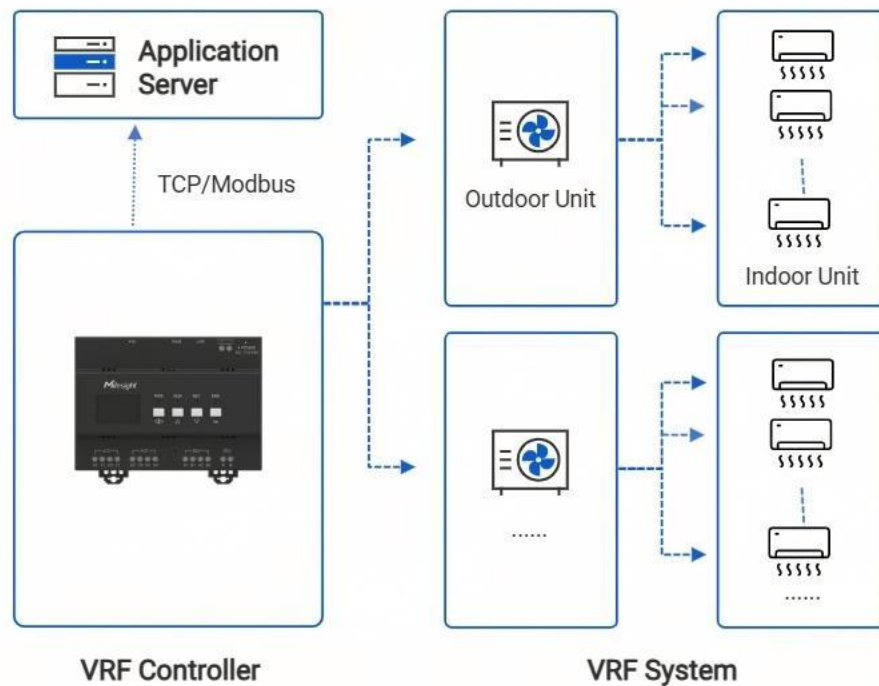
UC722 VRF System Controller is a centralized controller designed for VRF air conditioning systems. It enables unified management and monitoring of VRF systems from multiple brands in smart buildings, commercial facilities, and energy management applications. Equipped with four HVAC channels, the UC722 can connect to up to four independent VRF systems. Each channel supports non-polarized communication wiring and can be independently configured for the same or different VRF brands. The controller features a built-in web GUI for configuration and supports Modbus RTU, Modbus TCP, and JSON communication protocols for integration with various control and building management systems.

It can be deployed in applications such as buildings, campuses, commercial complexes, and centralized HVAC management scenarios.

## ◆ Features

- Compatible with mainstream VRF air conditioning brand
- 4-channel for the same/different brands VRF systems
- RS485 or Ethernet Ports for system control and integration
- LCD display for real-time controller status and information
- Supports multiple scheduled tasks to implement energy-saving strategies
- Support Firmware Update Over the Air (FUOTA) feature

## ◆ Application Example



## ◆ Specifications

### AC Control

|                          |                                                                                                                                                                                                                                                                                                    |
|--------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Compatibility            | Mainstream VRF/Central Air Conditioning Systems including Daikin, Mitsubishi Electric, Mitsubishi Heavy Industries, Hitachi, Toshiba, Panasonic, Samsung, LG, Fujitsu General, York (Qingdao, Guangzhou), Carrier, Trane, Bosch, McQuary, Hisense, Haier, Gree, TCL, Midea, AUX, Chigo, TICA, etc. |
| Air Conditioner Channels | 4 Outdoor Unit Channels, per Channel can add up to 160 Indoor Units                                                                                                                                                                                                                                |
| Control Functions        | Power On/Off, Mode, Temperature, Fan Speed, Airflow Direction, Lock/unlock, Schedule, Group Control                                                                                                                                                                                                |

### Communication

#### Ethernet Interface

|             |                                       |
|-------------|---------------------------------------|
| Port        | 2 × RJ45 10/100 Mbps                  |
| Property    | 1 × WAN + 1 × LAN                     |
| Server Type | MQTT, TCP                             |
| Protocol    | JSON, Modbus TCP, Modbus RTU over TCP |

#### Serial Port

|           |                                                                           |
|-----------|---------------------------------------------------------------------------|
| Port      | 1 × RS485 for Communication<br>(Reserved: 2 × RS485 for Meter Connection) |
| Baud Rate | 1200bps to 19200bps                                                       |

|                                 |                                                                     |
|---------------------------------|---------------------------------------------------------------------|
| Protocol                        | Modbus RTU                                                          |
| <b>Others</b>                   |                                                                     |
| Display                         | LCD Screen                                                          |
| Screen Buttons                  | 4 × Screen Control Buttons                                          |
| LED Indicator                   | 1 × PWR, 1 × RUN, 1 × NET, 1 × ERR                                  |
| USB                             | 1 × Type-C for Console (Reserved)                                   |
| Power Connector                 | 1 × DC Male Jack Connector (2.1 x 5.5 mm), 1 × 2-pin Screw Terminal |
| <b>Software</b>                 |                                                                     |
| Configuration                   | Web GUI                                                             |
| Advanced Feature                | FUOTA                                                               |
| <b>Physical Characteristics</b> |                                                                     |
| Power Supply                    | 12-24 VDC by DC Jack Connector or Screw Terminal                    |
| Operating Temperature           | -20°C ~ 60°C                                                        |
| Relative Humidity               | 0% to 90% (Non-condensing)                                          |
| Ingress Protection              | IP20                                                                |
| Material & Color                | ABS (UL94 V2), Black                                                |
| Weight                          | 280g                                                                |
| Dimension                       | 126 × 90 × 68 mm                                                    |
| Wire Connection                 | ≥ 0.75 mm <sup>2</sup>                                              |
| Installation                    | DIN Rail Mounting, Wall Screw Mounting                              |
| <b>Approvals</b>                |                                                                     |
| Regulatory                      | CE, TELEC                                                           |
| Environmental                   | RoHS                                                                |

## ◆ Dimensions (mm)

