



RF Wi-SUN Module

The **Wi-SUN RF Mesh** Communication Module provides utilities with a reliable and scalable solution for advanced metering and smart grid applications. Fully compliant with standards, it ensures interoperability with multi-vendor devices while delivering secure, future-proof connectivity.

Designed for seamless integration with EDMP smart meters and related equipment, the module enables real-time communication across meters, relays, access points, and distribution automation systems. Its self-forming, self-healing mesh architecture guarantees resilient performance even in challenging environments, while wide-area coverage supports deployment in urban, suburban, and rural networks.

By combining strong security features with robust networking capabilities, the Wi-SUN Communication Module enhances operational efficiency, improves data reliability, and accelerates the digital transformation of utility networks.



RF-WiSUN Module

Features & Benefits:

| | |
|----------------------------|--|
| Frequency Bands | 902–907.5 MHz, 915–928 MHz (BZ) with configurable PHY operational modes |
| Security | Certificate-based authentication for highly secure communication |
| Self-Diagnostics | Integrated watchdog program monitors internal status |
| Installation & Maintenance | Self-forming, self-healing mesh network with upgrade capability |
| Longevity | Based on open standards, ensuring upgradeability and long-term support |
| Range | Sub-GHz operation with extended mesh network coverage |
| Latency | Low latency through high data rates and efficient channel utilization |
| Energy Efficiency | Short transmission times and optimized performance for long battery life in leaf nodes |
| Cost Efficiency | Open standards and support for multiple silicon vendors reduce costs |
| Communication | Bidirectional communication supporting both passive and active modes |
| FAN Support | Fully compliant with Wi-SUN FAN 1.1 specification |
| High Data Rates | OFDM modulation supports up to 2400 kbps, exceeding traditional FSK |
| Compatibility | OFDM technology remains backward-compatible with existing FSK modulation |



RF-WiSUN Module

Specification:

| | |
|------------------------------|--|
| Frequency Range | 902–907.5 MHz, 915–928 MHz (BZ) |
| Spreading Technique | Frequency Hopping |
| Transmitter Output Power | Up to 30 dBm / 1 W |
| Receive Sensitivity | -110 dBm |
| Modulation | FSK / OFDM |
| Data Rate | FSK: 50 / 150 kbps OFDM: 150 / 200 / 300 / 400 / 600 / 800 / 1200 / 1600 / 2400 kbps |
| NAN Network Addressing | 8-byte MAC Address |
| Protocol | UDP / IPv6 |
| Confidentiality | AES-256 Encryption |
| Authentication | ECDSA & RSA Signatures |
| Application Security | DLMS Greenbook 7, Suite 0/1 |
| Last Gasp Function | Backup power supports 45 or 90 seconds |
| Firmware Upgrade | Over-the-Air (OTA) supported |
| Protections | Impulse Voltage: 6 kV (per meter spec) Applied Voltage: 2 kV (per meter spec) |
| Weight | 30 g |
| Operating Temperature | -40°C to +70°C |
| Operating Humidity | 5% to 95%, non-condensing |
| Supply Voltage (Unregulated) | 12.0 ~ 13.0 V |
| Ripple | ±120 mV |
| Transient Response | ±200 mV |

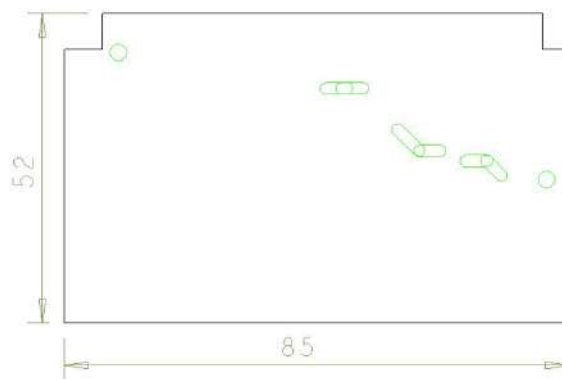


CELLULAR MODULE

LED Indicators:

| LED | Colour | Description |
|-------------------|----------------------------|--|
| Power | Red | Red LED on, indicates power is normal |
| Net | Green | Green Led flashes, indicate module is connecting to the network |
| RXD | Red | Red LED flashes, Receive data from cellular station |
| TXD | Green | Green LED flashes, Sent data to cellular station |
| Connection Status | RX/TX LED Flashing slowly | Indicates that the module is searching for the network; |
| | RX/TX LED Flashing Quickly | Indicates that the module has located Signal and is trying to connect |
| | RX/TX LED Off | Indicates that the connection has been stabilized and the module is traveling on the network |

Dimensions:



EDMP

PO Box 125428, Plot No. MO0147C, Junction of N400 & N406 Streets,
Jebel Ali Free Zone, Dubai, United Arab Emirates

✉ info@edmpco.com 🌐 www.edmpco.com

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