

# VertexCom Participates in Development of Wi-SUN FAN 1.1 Spec, VC735X Certified by Wi-SUN Alliance as FAN 1.1 Ready CTBU

HSINCHU, TAIWAN, January 30, 2024

/EINPresswire.com/ -- [VertexCom](#), a leader in Wi-SUN SoC and networking software design, continues to participate in the [Wi-SUN Alliance](#) Working Group discussions and contributes to the development of Wi-SUN FAN 1.1 technical specification. VertexCom VC735X wireless SoC was certified by the Wi-SUN Alliance as one of the first FAN 1.1 Certified Test Bed Units (CTBU) as early as January 2023, successfully passing the PHY Layer for FAN 1.1 Profile certification. Recently, the VC735X has also obtained Wi-SUN Alliance's certification as the Wi-SUN FAN 1.1 Ready (PHY Layer only) CTBU and Product.

In the context of the Wi-SUN Alliance's certification program, CTBU stands for Certified Test Bed Unit, which is used for testing the interoperability of Wi-SUN radio equipment. This means that the VC735X SoC plays a demonstrative role in the Wi-SUN FAN 1.1 Ready (PHY Layer only) certification.

VertexCom VC735X is the next-generation Wi-SUN FAN RF Mesh Wireless SoC. It features OFDM/FSK concurrency, making it an ideal solution for IoT networking and sensing applications.

Wi-SUN FAN 1.1 protocol update includes the following directions:

## 1. Higher data rate

The new OFDM PHY specification supports a data rate increase from 150 kbps to 2.4 Mbps. VertexCom VC735X can support a data rate of up to 3.6 Mbps with 64-QAM proprietary data rate.

## 2. Multiple transmission rate switching



VC735X, CTBU, Wi-SUN FAN 1.1 Ready (PHY Layer only)

VertexCom VC735X can support selective switching between FSK, and OFDM, and different transmission rates.

VC735X features:

- Highest data rate Sub-GHz Wireless SoC
- FSK: 50/100/150/200/300/400/600 kbps
- OFDM: 2.4 Mbps with 16QAM on 802.15.4x.
- OFDM: 3.6 Mbps with 64QAM
- RF Parameters
- RF Bands: 850-960, 430-520, 300-330, 230 MHz
- Tx Power: FSK: 20 dBm. OFDM: 17 dBm
- Rx Sensitivity: FSK: -108 dBm/50Kbps. OFDM: -93 dBm /2.4Mbps
- Adaptive Modulation
- OFDM, FSK Concurrent & Co-existence
- MCU
- ARM Cortex M3 32-bit MCU (max. 120 MHz). 2 MB Flash, 256 KB SRAM.
- AES 128/192/256-bit
- Support Wi-SUN Protocol: FAN1.0 & FAN1.1



VC735X, Product Certificate, Wi-SUN FAN 1.1 Ready (PHY Layer only)

### About VertexCom

VertexCom is a brand of world-class communication chips and networking software for long-range, large-scale IoT, smart grids, and automotive applications. The offer includes a complete communication solution including Wi-SUN, HomePlug AV & GreenPHY, HPLC, G3-PLC, and hybrid dual-mode communication solutions. As a contributor to international communication specifications, VertexCom participates in the development of Wi-SUN FAN 1.1 as well as G3-PLC & RF hybrid dual-mode specification. For additional information, please visit:

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

### About Wi-SUN Alliance

Wi-SUN Alliance is a global non-profit member-based association made up of industry leading companies. Its mission is to drive the global proliferation of interoperable wireless solutions for use in smart cities, smart grids and other Internet of Things (IoT) applications using open global standards from organizations, such as IEEE, IETF, TIA, TTC and ETSI. With 300 members worldwide, membership of the Wi-SUN Alliance is open to all industry stakeholders and includes silicon vendors, product vendors, services providers, utilities, universities, enterprises and municipalities and local government organizations. For additional information, please visit:

<https://wi-sun.org>

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