

The graphic features a stylized network of interconnected nodes and lines, overlaid on a background of overlapping triangles in shades of blue and purple. The word "VANET" is prominently displayed in the center in a white, bold, sans-serif font, with a registered trademark symbol (®) to its upper right.

VANET®

iVANET's VA Router_VTO-be7000

- VANET Inc. has developed its own Wi-Fi routers by integrating its proprietary protocol (iStack) into a thin layer of the TCP/IP stack.
- VANET's proprietary protocols enable the routers to form a Wi-Fi-based WAN with mobility and provide congestion control to ensure wired internet quality.
- **VTO-be7000** is equipped with Wi-Fi 7 as the most advanced Wi-Fi standard and is designed for outdoor mesh and backbone/access networks installed at the road-side units, rooftops, or building walls.

Product Overview (VTO-be7000)

1. System

2.4GHz Wi-Fi SoC	Qualcomm IPQ5018 (Maple)
5GHz 802.11ax Wi-Fi 6 PCIe Radio	Qualcomm QCN6102 (Spruce)
6GHz 802.11ax Wi-Fi 6E PCIe Radio	Qualcomm QCN6112 (Spruce)
1Gbps Ethernet	Qualcomm IPQ5018
2.5Gbps Ethernet PHY IC	Qualcomm QCA8081 (Napa)
RAM	DDR3 SDRAM 256MB x 2
FLASH RAM	SPI NOR Flash 16MB eMMC 4GB

2. Mechanical Dimensions

Chassis Size (L * H * D) mm	226 x 226 x 93.1 mm	
Chassis Type	Multi-Mount options	
PCB Dimensions	Wi-Fi board: 180 x 180 x 1.6 mm 6 Layers FR4	
Chassis material	Front panel	ABS
	Back panel and body	Metal and colling fin

3. Supports Standard

- IEEE 802.11 a/b/g/n/ac/ax/be
- WPA2, WPA3
- Wi-Fi Mesh
- 10BASE-T_e/100BASE-T_x/1000BASE-T/2.5GBASE-T/10GBASE-T, IEEE 802.3, IEEE 802.3u, IEEE 802.3ab, IEEE 802.3bz, IEEE 802.3an compliant
- GPS

4. Features

- **AP-MCU : Quad-core ARM Cortex A73 @ 2.2 GHz**
- **NEON processing engine with Advanced SIMD and Floating-point Extension**
- **Cryptography Extension**
- **Security:**
- **CPU-Crypto engine**
- **CPU-Trust Zone**
- **Wi-Fi:**
- **Supports 20/40 MHz in 2.4 GHz**
- **Supports 20/40/80/160 MHz in 5 GHz**

4. Feature (continues)

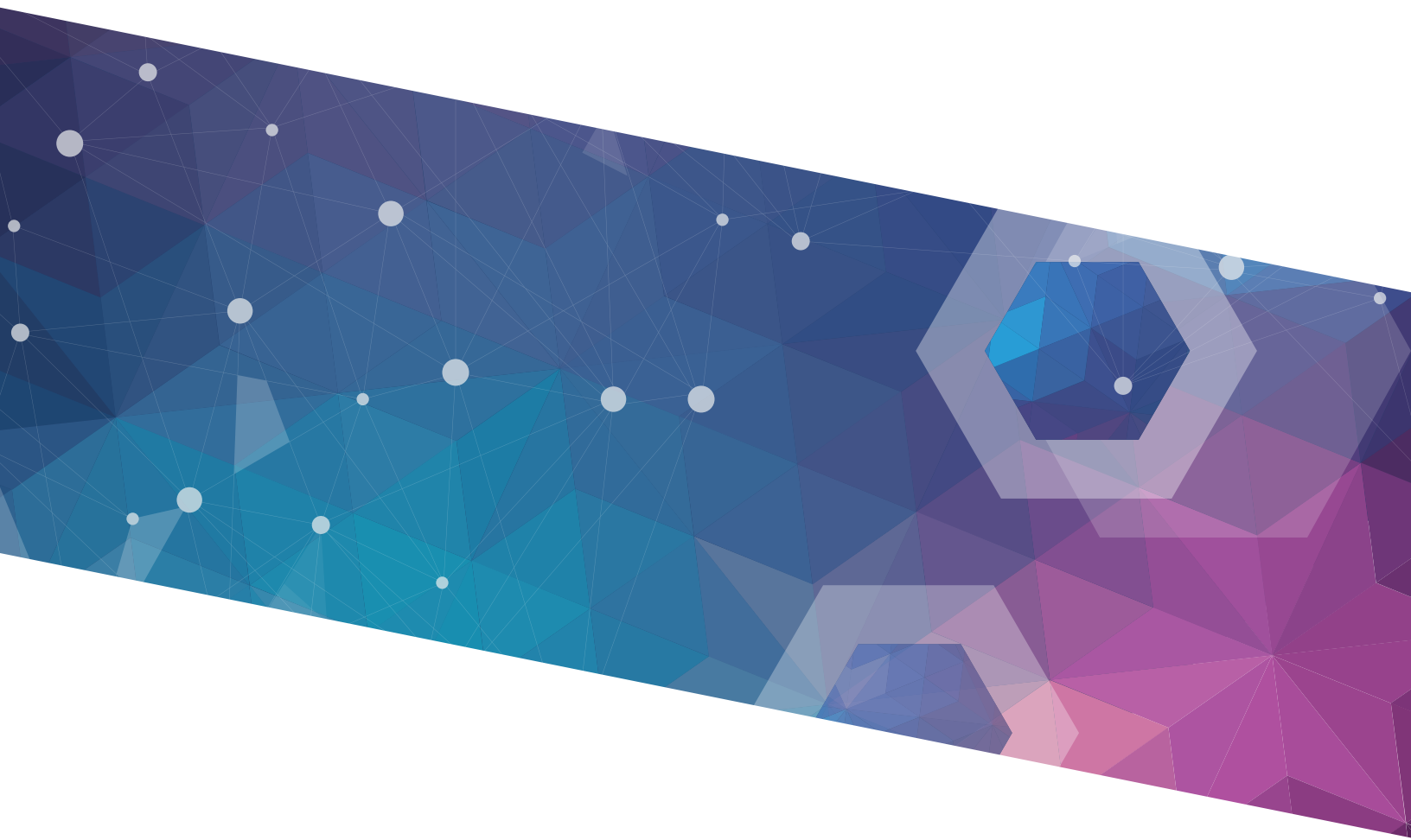
- 2.4 GHz data rate up to 1147 Mbps in 802.11ax 40 MHz mode
- 5 GHz data rates of up to 5764 Mbps in 802.11be 160 MHz channels
- 6 GHz data rates of up to 11530 Mbps in 802.11be 320 MHz channels
- UL OFDMA / MU-MIMO, DL OFDMA / MU-MIMO
- Tx Beamformer (Explicit/Implicit) and Rx Beamforming
- TxBF, MU-MIMO, MU-OFDMA/TxBF, STBC, LDPC
- DFS (Dynamic Frequency Selection)
- AMPDU/AMSDU RX (de-aggregation) and TX (aggregation) support
- AFC (Automated Frequency Coordination) for 6 GHz Wi-Fi

5. Temperature

Ambient Operating temperature	-30°C~+60°C
Ambient Storage temperature	-30°C~+70°C

6. ID Concept (VTO-be7000)





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VANET Inc. is one-of-a-kind wireless infrastructure and Application Company. Insisting on supreme technologies, VANET Inc. sets out to create the best Internet Solution Technologies to enable transparent and non-disruptive convergence for the next-generation-Internet.