

The logo features the word "VANET" in a bold, white, sans-serif font, followed by a registered trademark symbol (®). It is centered within a decorative banner that has a low-poly, geometric pattern in shades of blue and purple, with a network of white dots and lines overlaid.

VANET®

iVANET's VA Router_VTI-axe3100

- 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.
- **VTI-axe3100** is equipped with Wi-Fi 6E and is designed for home users.

Product Overview (VTI-axe3100)

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	158.5 x 161.2 x 121.2 mm	
Chassis Type	Tower type	
PCB Dimensions	130 x 130 x 1.6 mm 4 Layers FR4	
Chassis material	Front panel	ABS
	Back panel and body	ABS and fabric

3. Supports Standard

- IEEE 802.11 a/b/g/n/ac/ax
- 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

- **CPU : Dual-core ARM Cortex A53s @ 1.0 GHz**
 - 32 KB instruction cache and 32 KB data cache per core
 - 256 KB L2 cache (shared)
 - Each core has NEON and FPU
 - Secure boot
- **Security**
 - Crypto engine
 - Encryption algorithms AES (128-bit and 256-bit key support) and DES/3DES
 - Authentication algorithms SHA1, SHA224 (the result of supporting SHA256), SHA256, and HMAC-SHA1 and HMAC-SHA2
 - XTS/CTR/CCM/CMAC mode for AES

4. Feature (continues)

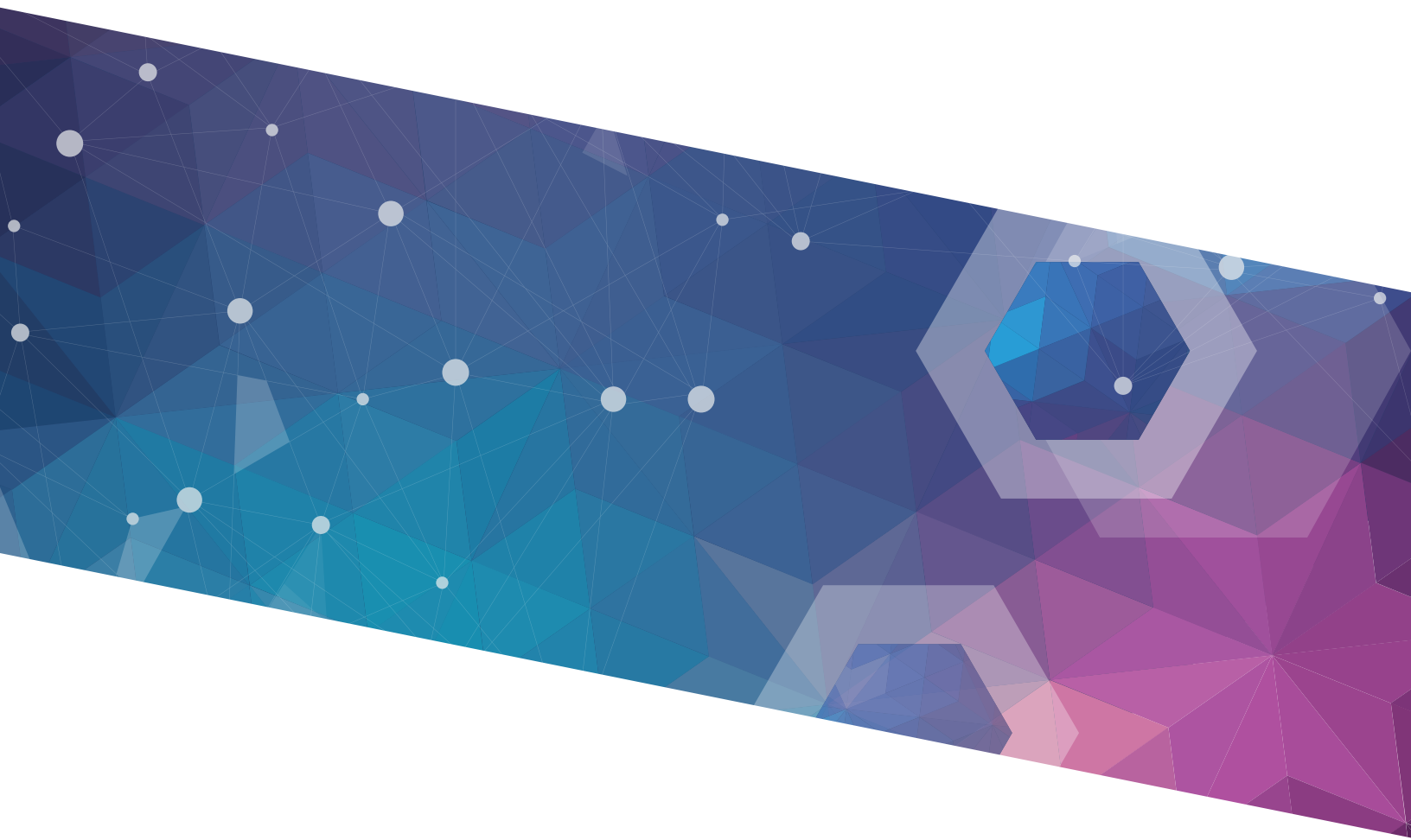
- CBC/ECB mode both for AES and DES/3DES
- TrustZone
- **Wi-Fi**
 - Supports 20/40 MHz in 2.4 GHz
 - Supports 20/40/80/160 MHz in 5 GHz
 - Supports 20/40/80/160 MHz in 6 GHz
 - 2.4 GHz data rate up to 573.5 Mbps in 802.11ax 40 MHz mode
 - 5 GHz data rates of up to 2402 Mbps in 802.11ax 160 MHz channels
 - 6 GHz data rates of up to 2402 Mbps in 802.11ax 160 MHz channels
 - 2.4 GHz : SU-MIMO (2ss, 1 user), DL/UL-OFDMA (4 users)
 - 5 GHz : DL MU-OFDMA, up to 8 users per PPDU; UL MU-OFDMA, up to 4 users per PPDU
 - 6 GHz : DL MU-OFDMA, up to 8 users per PPDU; UL MU-OFDMA, up to 4 users per PPDU
 - Tx Explicit Beamforming for 2.4 GHz, 5 GHz and 6 GHz
 - TxBF, MU-MIMO, MU-OFDMA/TxBF, ML, STBC
 - Spatial reuse through BSS color, OBSS-PD, SRG and SRP
 - Dynamic bandwidth switching

5. Temperature

Ambient Operating temperature	-0°C~+40°C
Ambient Storage temperature	-20°C~+70°C

6. ID Concept (VTI-axe3100)





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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.