



Introduction



About Us

SparkLAN Communications
Wifi solutions provider

Start: 2002

Group of Ampak, Gemtek

Capital: USD 3.6 million

Annual Sales: USD 11.3 million (2021)

Employee number: under 50

Location: Taipei, Taiwan

Why SparkLAN?



Technology

Time to
Market
Technology



Product

Rich Product
Variety



Support

From
Software to
Hardware



Logistic

No MOQ with
Fast Delivery



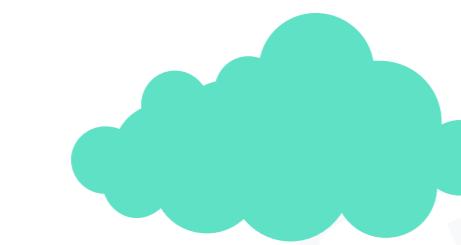
Simplicity

Friendly
Integration to
reduce
Development

What Services can SparkLAN offer

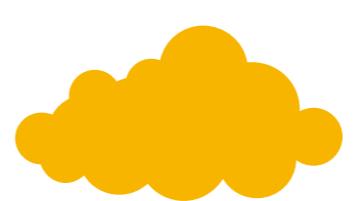
New projects in

1. Define project potential.
2. Clarify customer's technical requirements.
3. Identify potential effort via customer's technical spec.
4. Decide which solution to proceed.



Designing

1. Sample out and follow up customer's testing status.
2. Technical support during testing & verification.
3. **Clarify customer's certification plan**
4. Identify how we proceed customer's certification.
5. In this stage, three-way contacting will be more efficiency.



Certification

Multiple countries pre-certification on modules.
(mostly with CE/FCC/IC/MIC)

By Sparklan:

1. Customer provide Sparklan samples & SW to verify the feasibility.
2. After verification, Sparklan will proceed the certification.



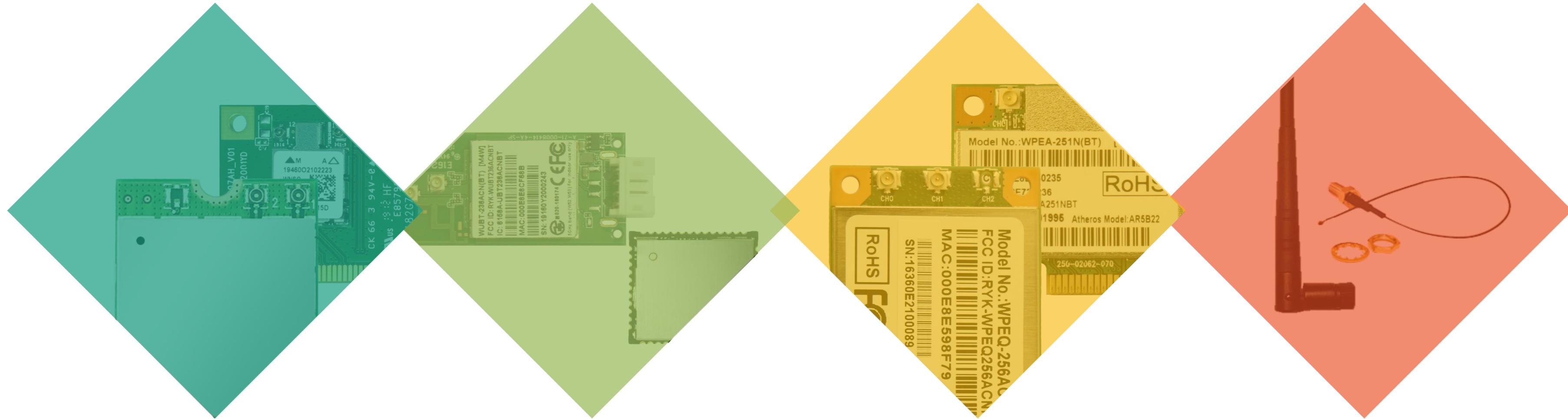
Delivery

1. No MOQ, but the pricing is based on the order quantity, so if customer is price sensitive, frame order may be a way to solve their concern.
2. Considering current long lead time issue, this would be our chances to discuss with customer frame contract.



Product Portfolio

Various Interface & Formfactors



PCIe Interface

M.2 / Full / Half Mini PCIe
Wi-Fi & Bluetooth
Special Design

USB & SDIO

Wi-Fi & Bluetooth
Industrial Temperature
Special Design

Industrial Grade

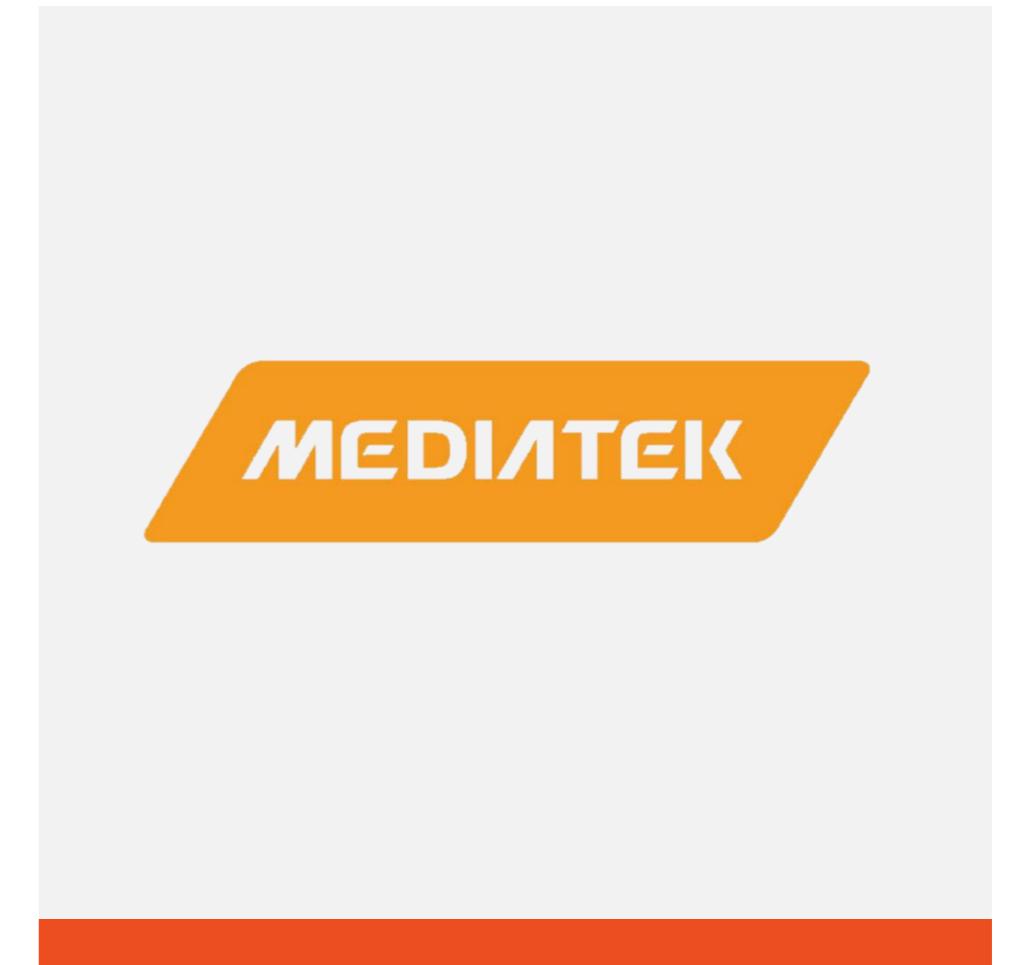
Wide Temperature (-20~70)
Industrial Grade (-40~80)
In All Formfactors

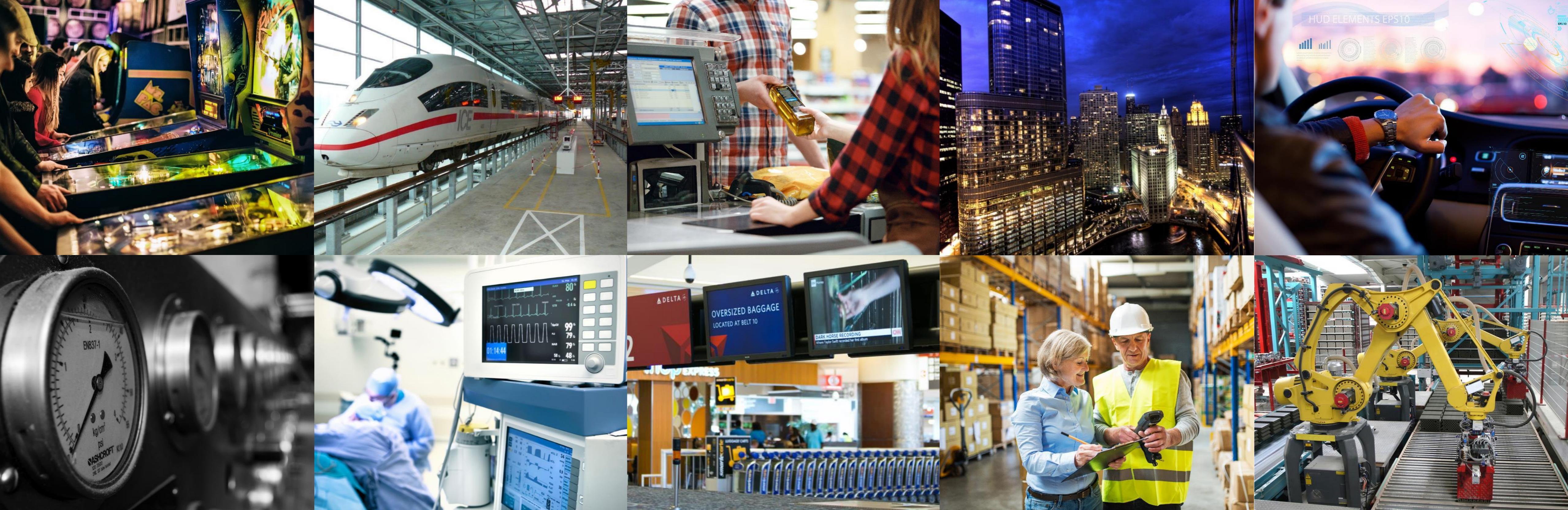
Accessories

Multiple type
Antennas
Antenna Cables

Chipset Solutions

Tier 1 Chipset Manufacturers





Application Footprint

Your Industry, Our Coverage

Medical

Automation

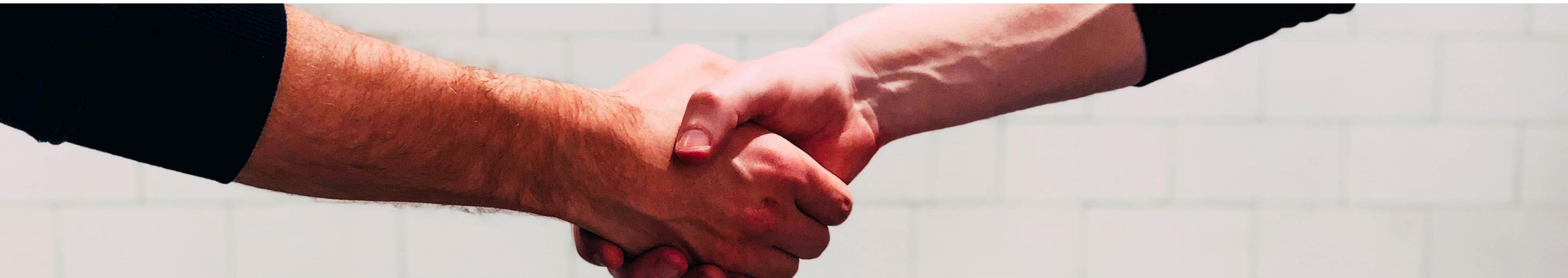
Transportation

Industrial
Environment

POS

Gaming &
Entertainment

Our Client List



Honeywell

 **GE Healthcare**

 **kontron**

 **PerkinElmer®**
For the Better

ADVANTECH
研華科技

 **aruba**
a Hewlett Packard
Enterprise company

NEC

SHARP

RICOH

 **SoftBank**



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SparkLAN
Connections Made Easy



Product Roadmap

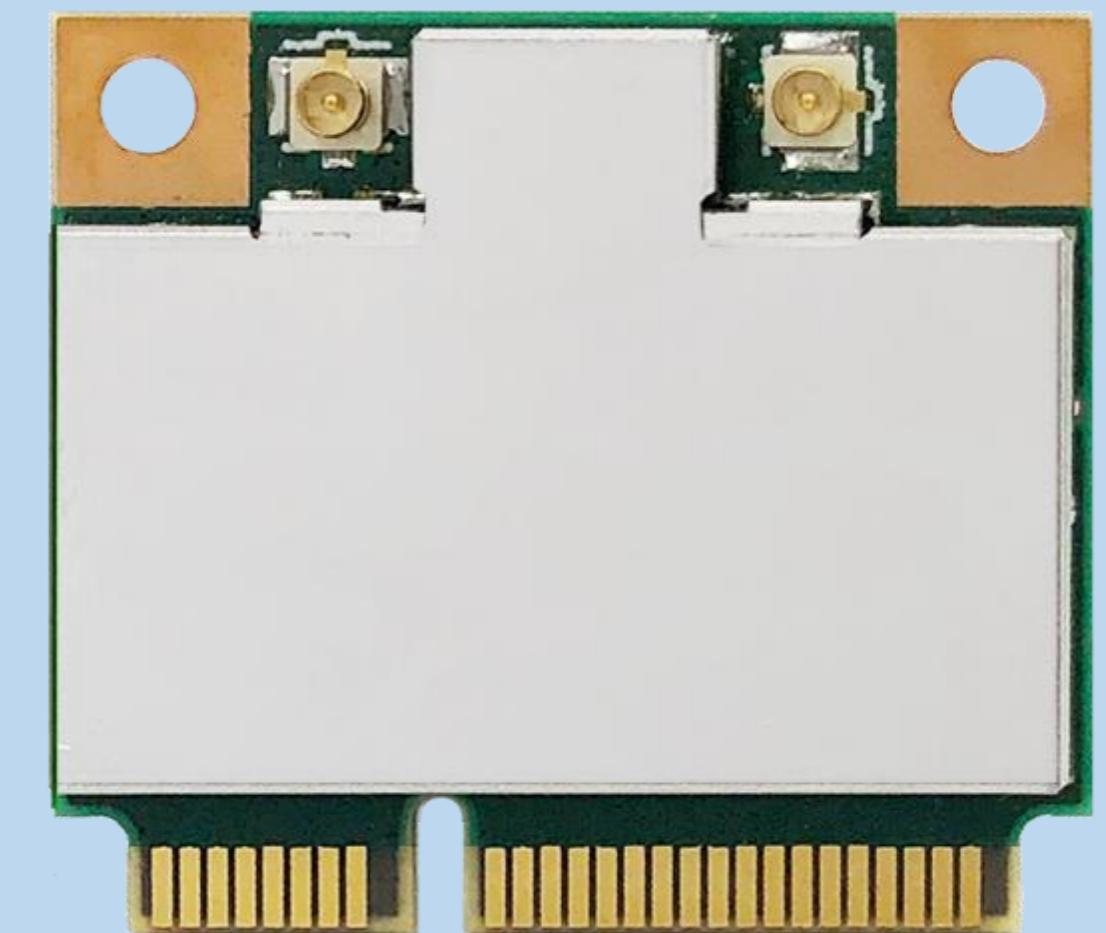
New WiFi 6 solutions in 2022

QCA Wi-Fi 6 & 6E Tri-band Solution

2X2

WNFQ-268AXI (BT) / WPEQ-268AXI(BT)

- Qualcomm Atheros WCN6856
- 802.11ax Tri-Band (Dual Band Concurrent, DBDC) 2x2 + BT 5.2
- Interface: Wi-Fi: PCIE, BT:USB
- Form factor: M.2 E Key 2230 / half mini PCIe
- Antenna Connector: 2x IPEX MHF4
- Support Windows 10, Linux (kernel 5.14 or newer)
- Operating temp.: -40°C~+75°C (TBD)
- Dimension: 22x30mm
- SoftAP support



*Bluetooth Version Support is Subject to Official Announcement

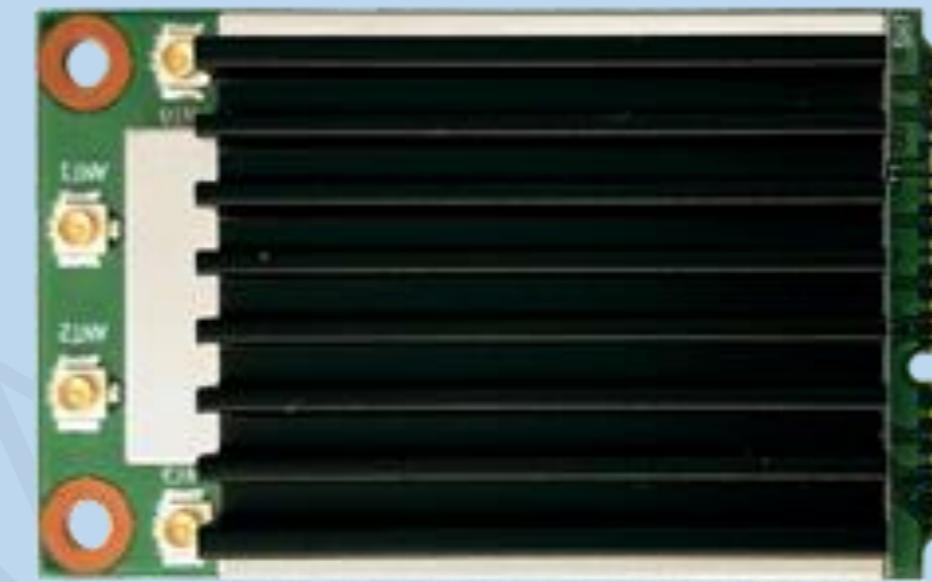
QCA Wi-Fi 6 & 6E AP Solution

4 X 4



WPEQ-402AX

- Qualcomm Atheros QCN9074
- 802.11ax Single-Band 4x4 2.4G Mini PCIe Full size Card
- Antenna Connector: 4 x IPEX MHF1
- Support Linux
- Suitable for AP Application
- In plan



WPEQ-405AX

- Qualcomm Atheros QCN9074
- 802.11ax Single-Band 4x4 **5Ghz** Mini PCIe Full size Card
- Antenna Connector: 4 x IPEX MHF1
- Support Linux **kernel 5.14**
- **Suitable for AP Application**
- **Operating temp.:- -20~70°C**



WPEQ-276AX

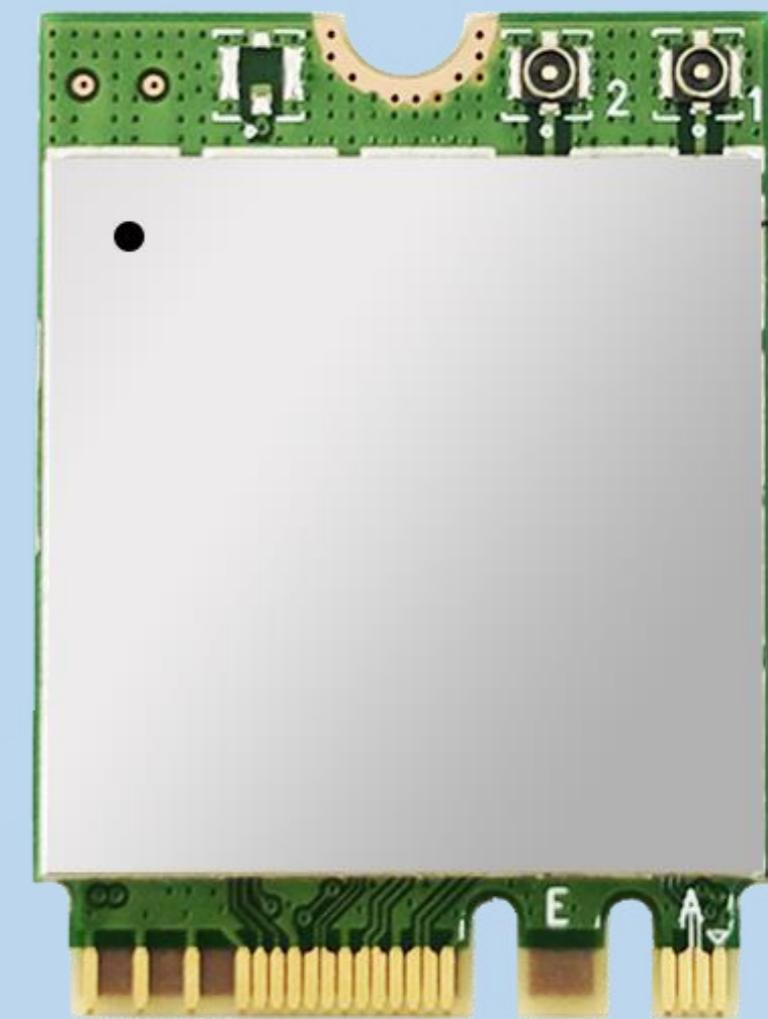
- Qualcomm Atheros QCN9072
- 802.11ax Single-Band 2x2 **6Ghz** Mini PCIe Full size Card
- Antenna Connector: 2 x IPEX MHF1
- Support Linux **kernel 5.14**
- Suitable for AP Application
- **Operating temp.:- -20~70°C**
- **MP: Q3 2022**

RTL Wi-Fi 6 Solution

2 X 2

WNFT-238AX (BT)

- Realtek RTL8852AE
- 802.11ax Dual-Band 2x2 + BT 5.2
- Interface: Wi-Fi: PCIE, BT:USB
- Form factor: M.2 A/E Key 2230
- Antenna Connector: 2x IPEX MHF4
- Support Windows, Linux (recommended kernel 5.4)
- Operating temp.: 0°C~+70°C
- Entry Level Module



*Android Support is Subject to Official Announcement

Broadcom Wi-Fi 6 Solutions

2 X 2

Suitable Situation

- Project EAU> 2K
- Or projects using AMlogic/Rockchip/allwinner CPU
→ BCM driver is hard to use, don't support small projects

- BCM43752
- 802.11ax Dual-Band 2x2 +BT5.0
- Support Linux, Android
- Support SoftAP/STA
- Operating temp.: -40°C~+85°C

WPEB-265AXI(BT)

- WiFi: PCIE, BT:USB / UART
- Form factor: Half Mini PCIe
- Antenna Connector: 2x IPEX MHF1



WNFB-265AXI(BT)

- WiFi: PCIE, BT:UART/PCM
- Form factor: M.2 2230 E key
- Antenna Connector: 2x IPEX MHF4



WNFB-266AXI(BT)

- WiFi: SDIO V3.0/2.0, BT:UART/PCM
- Form factor: M.2 2230 E key
- Antenna Connector: 2x IPEX MHF4



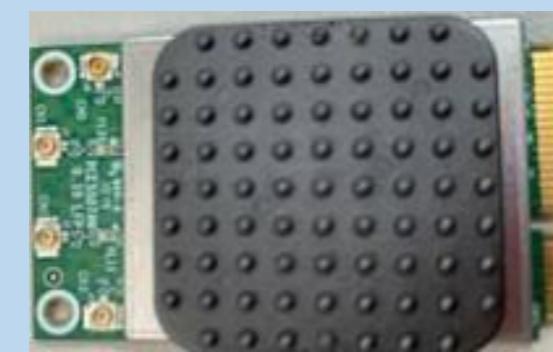
Wi-Fi 5 Solutions

QCA AP Solution

4 x 4

WPEQ-450AC

- QCA9984
- 11ac Wave 2 4x4 HMC
- Support Linux Ath 10K
- Antenna Connector: 4 x IPEX
- Operating temp.: -20°C ~ +70 °C
- Certification: FCC/CE/IC/MIC



3 x 3

WPEA-352ACNRBI

- QCA9890-BR4B
- 11ac Dual-Band 3x3 Mini PCIe
- Support Linux
- 3 x IPEX Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC



WPEA-352ACNRB

- QCA9880-BR4A
- 11ac Dual-Band 3x3 Mini PCIe
- Support Linux
- 3 x IPEX Connector
- Operating temp.: -20°C ~ 65°C
- Certification: FCC/CE/IC/MIC



2 x 2

WPEQ-256ACNRBI

- QCA9892-BR4B
- 11ac Dual-Band 2x2 Mini PCIe
- Support Linux
- 2 x IPEX Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/MIC



WPEQ-256ACNI

- QCA9892-BR4B
- 11ac Dual-Band 2x2 Mini PCIe
- Support Linux
- 2 x IPEX Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE



WPEQ-256ACN

- QCA9882-BR4A
- 11ac Dual-Band 2x2 Mini PCIe
- Support Linux
- 2 x IPEX Connector
- Operating temp.: -20°C ~ 60°C
- Certification: FCC/CE/MIC



QCA6174A-5 Mini PCIe Series

WPEA-251ACNI(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 HMC
- Support Linux, Windows
- 2 x IPEX MHF1 Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC
- **Cost-effective for I-Grade solution**



WPEQ-261ACN(BT) V1/V2

- QCA6174A-5
- 11ac Dual-Band 2x2 HMC
- Support Linux, Windows
- 2 x IPEX MHF4 Connector
- Operating temp.: -40°C ~ 70°C
- Certification: FCC/CE/IC/MIC/NCC/RCM





WPEQ-261ACNI(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 HMC
- Support Linux, Windows
- 2 x IPEX MHF1 Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC



WPEA-262ACNI(BT)

High Power

- QCA6174A-5
- 11ac Dual-Band 2x2 mPCIe
- Support Linux, Windows
- 2 x IPEX MHF1 Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC
- **High Power**



QCA6174A-5 M.2 Series

2 x 2

WNFQ-258ACN(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 M.2 2230
- Support Linux, Windows
- 2 x IPEX MHF4 Connector
- Operating temp.: -10°C ~ 70°C
- Certification: FCC/CE/IC/MIC



WNFQ-261ACNI(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 M.2 2230
- Support Linux, Windows
- 2 x IPEX MHF4 Connector
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC



WNFQ-262ACNI(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 +BT5.0
- M.2 2230 **B Key**
- Support Windows, Linux
- 2 x IPEX Connector
- Operating temp.:(-40°C ~+85 °C)
- Certification: FCC/CE/IC/MIC

2 x 2

WNSQ-261ACN(BT)

- QCA6174A-5
- 11ac Dual-Band 2x2 M.2 1216
- Support Linux, Windows
- 2 x IPEX MHF4 Connector
- Interface: WiFi: PCIe , BT: USB
- Operating temp.: -40°C ~ 85°C
- Certification: FCC/CE/IC/MIC



Realtek USB Series

2 x 2

WUBT-239ACN(BT) Series

- Realtek RTL8822CU
- 11ac Dual-Band 2x2 USB
- Support Linux, Android
- 2 x IPEX connector or printed antenna
- Operating temp.: TBD
- Certification: FCC/CE/IC/MIC



WPET-239ACN(BT)

- Realtek RTL8822CU
- 11ac Dual-Band 2x2 USB
- Support Linux, Android
- 2 x IPEX connector
- Interface: USB
- Form factor: HMC
- Operating temp.: TBD
- Certification: FCC/CE/IC/MIC



Newly Launched, recommended
for new projects & replacement
of WUBR-508N.

2 x 2

WUBT-236ACN(BT) Series

- Realtek RTL8822BU
- 11ac Dual-Band 2x2 USB
- Support Windows, Linux, Android
- 2 x IPEX connector or printed antenna
- Operating temp.: -20°C ~ 70°C
- Certification: FCC/CE/IC/MIC



WPET-236ACN(BT)

- Realtek RTL8822BU
- 11ac Dual-Band 2x2 USB
- Support Windows, Linux, Android
- 2 x IPEX connector
- Interface: USB
- Form factor: HMC
- Operating temp.: -20°C ~ 70°C
- Certification: FCC/CE/IC/MIC



Realtek M.2 Series

2 x 2

WNFT-234ACN(BT)

- Realtek RTL8822BE
- 11ac Dual-Band 2x2 M.2 2230 +BT
- Support windows, Linux, Android
- 2 x IPEX MHF4 Connector
- Operating temp.: 0°C~+70°C
- Certification: FCC/CE/IC/MIC



WNFT-237ACN(BT)

- Realtek RTL8822CE
- 11ac Dual-Band 2x2 M.2 2230 +BT5.0
- Support windows, Linux, Android
- 2 x IPEX MHF4 Connector
- Operating temp.: 0°C~+70°C
- Certification: FCC/CE/IC/MIC



New projects recommend WNFT-238AX(BT)



Let's Connect

