

## DATASHEET

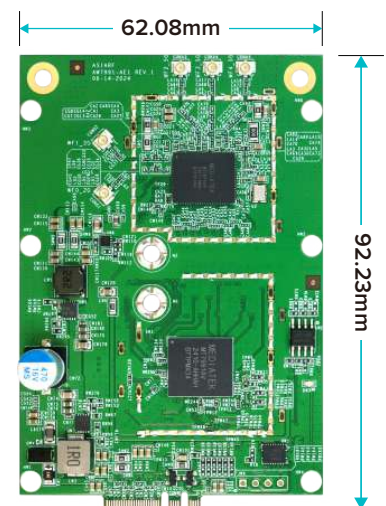
# Wi-Fi 7 M.2 AE Key Module AW7991-AE1



## Description

AW7991-AE1 is an Wi-Fi7 BE5000 module with MediaTek MT7991 chipset supports Wi-Fi7 technology and feature IEEE802.11a/b/g/n/ac/ax/be compliant, 2.4GHz 2x2 2ss, 5GHz 3x3 3ss BE5000 Wi-Fi subsystem. The MT7991 offers feature-rich wireless connectivity at high standards and delivers reliable, cost-effective throughput from an extended distance.

The optimized Wi-Fi baseband algorithms provide superb performance. The intelligent MAC design deploys a highly efficient offload engine and hardware data processing accelerators, which fully offload Wi-Fi task of the host processor. The MT7996AV is designed to support standard-based features in the areas of security, quality of service, and international regulations, giving end users the greatest performance at any time and in any circumstances.



## Features

### WLAN

- IEEE802.11a/b/g/n/ac/ax/be compliant
- Supports up to 4096-QAM
- Frequency band\2.4GHz
  - Bandwidth:20/40MHz
  - 2T2R 2ss
- Data rate of up to 688Mbps for 40MHz channel in 2.4Ghz and 4323Mbps for 160MHz in 5GHz mode
- Frequency band\5GHz
  - Bandwidth:20/40/80/160MHz
  - 3T3R 3ss
- Integrated power detector to support per packet Tx power control
- Dual-Band Dual Concurrent (DBDC)
- Multi-user multiple input multiple output (MU-MIMO) for Tx and Rx
- Multi-user Orthogonal Frequency-Division Multiple Access (MU-OFDMA) for Tx and Rx
- Support STBC, LDPC, Tx beamformer and Rx beamformee
- Support greenfield mode, mixed mode, and legacy mode

**For more detailed information, please contact our sales team: [sales@asiarf.com](mailto:sales@asiarf.com) / +886 2 2940 7880**

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