



# WIRELESS COMMUNICATION SOLUTIONS



# Wi-Fi 7



### 320 MHz Ultra-wide Channel

Double the Bandwidth, Significantly Increase Throughput

### MLO

Allows Devices to Simultaneously Use Multiple Frequency Bands, Enhancing Stability and Speed

### 16x16 MU-MIMO

Supports more Antennas and Further Enhances Concurrent Capabilities

### 4K-QAM Modulation

Enhance Data Transmission Density and Boost Throughput Rate

| Wi-Fi 7          |  |  |  |
|------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| IC Solution      | RTL8922D Series                                                                   | RTL8922C Series                                                                   | MT7927 Series                                                                       |
| Protocol         | 802.11b/g/n/a/ac/ax/be, 2T2R                                                      |                                                                                   |                                                                                     |
| Frequency        | 2.4/5/6GHz, BW160MHz                                                              | 2.4/5GHz, BW80MHz                                                                 | 2.4/5/6GHz, BW320MHz                                                                |
| Wi-Fi Interface  | PCIE                                                                              | SDIO      PCIE                                                                    | USB/SDIO/PCIE                                                                       |
| Thread Interface | USB<br>(share with BT)                                                            | UART      USB<br>(share with BT)                                                  | USB/UART                                                                            |
| BT Interface     | USB                                                                               | SDIO<br>(share with Wi-Fi)      USB                                               | USB/UART                                                                            |
| BT Version       | BT6.0/LE Audio/Thread<br>BT5.4/LE Audio/Thread                                    | BT5.4/LE Audio/Thread                                                             | BT5.3/LE Audio                                                                      |

## Key features of Wi-Fi 7

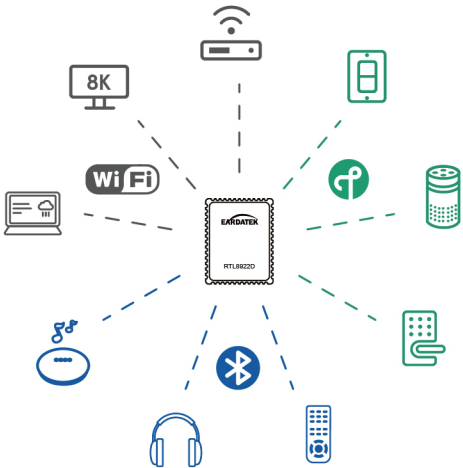
  
Higher Efficiency

  
Less Latency

  
Higher Speed and Throughput

  
Stronger Anti-Jamming

## Wi-Fi + BT + Thread 3 in 1



# Wi-Fi 6 | 6E



## OFDMA

Improves Concurrent Efficiency of Multiple Devices and Reduces Latency

## MU-MIMO

Support Simultaneous Communication for Multiple Users in Both Downlink and Uplink Directions

## TWT

Extend the Battery Life of Devices

## 6G Band (6E only)

New 6G Frequency Band Added

| Wi-Fi 6         |  |  |  |  |
|-----------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| IC Solution     | AML265x Series                                                                    | RTL8852Bx Series                                                                  | SWT6652 Series                                                                    | MT7920 Series                                                                       |
| Protocol        | 802.11ax, 2T2R                                                                    |                                                                                   |                                                                                   |                                                                                     |
| Frequency       | 2.4/5GHz, BW80MHz                                                                 |                                                                                   |                                                                                   |                                                                                     |
| Wi-Fi Interface | USB/SDIO/PCIE                                                                     |                                                                                   |                                                                                   |                                                                                     |
| BT Interface    | USB/UART                                                                          |                                                                                   | USB/SDIO/PCIE/UART                                                                | USB/UART                                                                            |
| BT Version      | BT5.4/LE Audio/Thread                                                             | BT5.4/LE Audio                                                                    | BT5.4/LE Audio                                                                    | BT5.2/LE Audio                                                                      |

|                 |                                                                                     |                                                                                     |                                                                                     |                                                                                       |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| Wi-Fi 6         |  |  |  |  |
| IC Solution     | RTL8851Bx Series                                                                    | SWT6621 Series                                                                      | RTL8862B Series                                                                     | SCM2625A Series                                                                       |
| Protocol        | 802.11ax, 1T1R                                                                      |                                                                                     | 802.11ax, 2T2R                                                                      |                                                                                       |
| Frequency       | 2.4/5GHz, BW80MHz                                                                   |                                                                                     |                                                                                     |                                                                                       |
| Wi-Fi Interface | USB/SDIO                                                                            |                                                                                     | PCIE/SDIO                                                                           | PCIE/USB                                                                              |
| BT Interface    | USB/UART                                                                            | SDIO/USB                                                                            | USB/SDIO                                                                            | USB/UART                                                                              |
| BT Version      | BT5.3                                                                               | BT5.4                                                                               | BT5.4/LE Audio/Thread                                                               | BT5.2                                                                                 |

| Wi-Fi 6E        |  |  |  |  |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| IC Solution     | RTL8852BPx Series                                                                   | MT7921K Series                                                                      | RTL8852C Series                                                                     | RTL8862A Series                                                                       |
| Protocol        | 802.11ax, 2T2R                                                                      |                                                                                     |                                                                                     |                                                                                       |
| Frequency       | 2.4/5/6GHz, BW80MHz                                                                 |                                                                                     | 2.4/5/6GHz, BW160MHz                                                                |                                                                                       |
| Wi-Fi Interface | SDIO/PCIE                                                                           | PCIE                                                                                | USB/PCIE                                                                            | PCIE                                                                                  |
| BT Interface    | USB/UART                                                                            |                                                                                     |                                                                                     | USB                                                                                   |
| BT Version      | BT5.2/LE Audio CIS                                                                  | BT5.2/LE Audio                                                                      | BT5.3/LE Audio                                                                      | BT5.4/LE Audio/Thread                                                                 |

# Wi-Fi 4 | 5



11n Dual Bands 2.4 / 5GHz,  
Special 802.11a



Sport



POS



Drone



Visual  
Doorbell

## Wi-Fi 4



|                 |                     |                  |               |               |                   |
|-----------------|---------------------|------------------|---------------|---------------|-------------------|
| IC Solution     | RTL8188/8189 Series | RTL8723Dx Series | 8731Bx Series | 8733Bx Series | RTL8192 Series    |
| Protocol        | 802.11b/g/n         | 802.11b/g/n      | 802.11a/b/g/n | 802.11a/b/g/n | 802.11b/g/n, 2T2R |
| Frequency       | 2.4GHz              | 2.4GHz           | 2.4/5GHz      | 2.4/5GHz      | 2.4GHz            |
| Wi-Fi Interface | USB/SDIO            | USB/SDIO/PCIE    | USB/SDIO      | USB/SDIO      | USB/SDIO          |
| BT Interface    | /                   | USB/Uart         | /             | USB/Uart      | /                 |
| BT Version      | /                   | BT4.2            | /             | BT5.2         | /                 |

## Wi-Fi 5



|                 |                        |                    |                     |              |                |
|-----------------|------------------------|--------------------|---------------------|--------------|----------------|
| IC Solution     | RTL8821/8822 Series    | MT7661/7663 Series | UWE5621/5622 Series | W155x Series | Hi1102A Series |
| Protocol        | 802.11b/g/n/a/ac       |                    |                     |              |                |
| Frequency       | 2.4/5GHz               |                    |                     |              |                |
| Wi-Fi Interface | USB/SDIO/PCIE          | USB/SDIO           | SDIO                |              |                |
| BT Interface    | USB/UART               | USB/SDIO           | UART                |              |                |
| BT Version      | BT4.2/5.0/5.3/LE Audio |                    | BT5.0               |              | BT5.1          |

# Bluetooth | Tuner



Connect various external devices.



Mouse



Keyboard



Camera

| BT/BLE       |  |  |  |  |  |
|--------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| IC Solution  | RTL8761x Series                                                                   | BR805xA01 Series                                                                  | BK3298                                                                            | BK3515Nx                                                                          | RTL8761BTv-V3D                                                                      |
| BT Version   | BT5.0/5.4+LE Audio                                                                | BT5.2                                                                             | BT5.4+LE Audio                                                                    | BT5.1                                                                             | BT5.0+3DSP                                                                          |
| Frequency    | 2.4G                                                                              |                                                                                   |                                                                                   |                                                                                   |                                                                                     |
| BT Interface | USB/UART                                                                          | UART                                                                              | UART/SPI/USB/IIC/IIS                                                              |                                                                                   | UART                                                                                |

| Dongle          |  |  |  |  |
|-----------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| IC Solution     | RTL8188FTVx                                                                         | RTL8822CU                                                                           | RTL8761BU                                                                           | MXL608+AVL6762+LME2510C                                                               |
| Protocol        | 802.11n,1T1R                                                                        | 802.11ac,2T2R                                                                       | /                                                                                   | 170MHz-862MHz                                                                         |
| Frequency       | 2.4G                                                                                | 2.4G/5G                                                                             | 2.4G                                                                                | DVB-T2                                                                                |
| Wi-Fi Interface | USB 2.0                                                                             | USB 2.0                                                                             | /                                                                                   | USB 2.0                                                                               |
| BT Interface    | /                                                                                   | USB 2.0                                                                             | USB 2.0                                                                             | /                                                                                     |
| BT Version      | /                                                                                   | BT5.0                                                                               | BT5.0                                                                               | /                                                                                     |

| Tuner       |  |  |  |  |
|-------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
| IC Solution | RDA5815M+AVL6261A                                                                   | RDA5815M/RT720                                                                      | MXL608/R842/R836/<br>Si2151/MXL661                                                  | Si2151*2+RDA5815M*2                                                                   |
| Frequency   | 950-2150MHz                                                                         | 950-2150MHz                                                                         | 45-862MHz/44-1004MHz                                                                | 90-770MHz & 950-2150MHz                                                               |
| Features    | DVB-S2X NIM Tuner<br>QPSK/8PSK/16APSK/<br>32APSK                                    | DVB-S2/S Half NIM<br>Tuner                                                          | DVB-C/T2/T/ATSC/<br>ISDB-T Half NIM Tuner                                           | ISDB-T Half NIM Tuner<br>and<br>DVB-S2 Half NIM Tuner                                 |

# IoT



Wi-Fi / LoRa / BLE Mesh / ZigBee  
Matter / Thread/ Nearlink

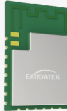


- Smart Control
- Program-mable
- Voice Control
- Low Energy
- Cloud Access

| IoT Wi-Fi   |                   |               |                |                   |                   |
|-------------|-------------------|---------------|----------------|-------------------|-------------------|
| IC Solution | RTL8711F          | Hi3861L       | GD32VW553      | BK7239N           | TXW8301           |
| Protocol    | 802.11b/g/n/ax    | 802.11b/g/n   | 802.11b/g/n/ax | 802.11b/g/n/ax    | IEEE 802.11ah     |
| Frequency   | 2.4G/5GHz         | 2.4GHz        | 2.4GHz         | 2.4G/5GHz         | 902MHz~928MHz     |
| Interface   | SDIO/USB/IIC/UART | SDIO/UART/SPI | UART/IIC/SPI   | SDIO/UART/IIC/IIS | SDIO/UART/SPI/USB |
| Bandwidth   | 20MHz             | 20MHz         | 20MHz          | 20MHz             | 1/2/4/8MHz        |
| BT Version  | BLE5.0            | /             | BLE5.2         | BLE5.4            | /                 |

| LoRa        |                        |                                           |
|-------------|------------------------|-------------------------------------------|
| IC Solution | STM32WLE5 (ST)         | LR1110 (Semtech)                          |
| Protocol    | LoRa/Sigfox/<br>W-MBus | LoRa/GNSS/Wi-Fi AP<br>MAC Address Scanner |
| Frequency   | 150-960MHz             | 150-2700MHz                               |
| Interface   | UART                   | SDIO                                      |

|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                  |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|------------------|
|  |  |  |  |  |  |                  |
|                                                                                   | IC Solution                                                                       | RTL8771GUV                                                                        | RTL8777X                                                                          | EFR 32MG24                                                                        | nRF54Lxx                                                                            | TL321x           |
|                                                                                   | Protocol                                                                          | Thread V 1.3.0                                                                    | Thread V 1.3.0                                                                    | Thread V 1.3.0                                                                    | Thread V 1.3.0                                                                      | Thread V 1.3.0   |
|                                                                                   | Frequency                                                                         | 2.4GHz                                                                            | 2.4GHz                                                                            | 2.4GHz                                                                            | 2.4GHz                                                                              | 2.4GHz           |
|                                                                                   | Interface                                                                         | USB                                                                               | UART/USB/MIC/SPI                                                                  | UART/IIC/SPI                                                                      | UART/IIC/IIS/SPI                                                                    | UART/IIC/IIS/SPI |
|                                                                                   | BT Version                                                                        | BLE5.3                                                                            | BLE5.3                                                                            | BLE5.3                                                                            | BLE6.0                                                                              | BLE5.4           |

|                    |                                                                                   |                                                                                   |                                                                                   |                                                                                     |                   |
|--------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------|
| ZigBee<br>BLE Mesh |  |  |  |  |                   |
|                    | IC Solution                                                                       | TLSR825x                                                                          | EFR32MG21                                                                         | RTL8762Cx                                                                           | TLSR9228          |
|                    | Interface                                                                         | UART/PWM/<br>SPI/IIC                                                              |                                                                                   |                                                                                     | UART/PWM/ADC/GPIO |
|                    | BLE SIG Mesh                                                                      | BLE5.4                                                                            | BLE5.1                                                                            | BLE5.0                                                                              | BT5.2             |
|                    | ZigBee                                                                            | ZigBee3.0                                                                         |                                                                                   | /                                                                                   | ZigBee3.0         |

|          |                                                                                     |                                                                                     |                                                                                     |                                                                                       |         |
|----------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|---------|
| Nearlink |  |  |  |  |         |
|          | IC Solution                                                                         | WS73x101Series                                                                      | TR5330x Series                                                                      | WS73E101 Series                                                                       | TR5330E |
|          | Protocol                                                                            | 802.11ax, 1T1R                                                                      |                                                                                     | /                                                                                     |         |
|          | Frequency                                                                           | 2.4GHz,BW40MHz                                                                      |                                                                                     | /                                                                                     |         |
|          | Interface                                                                           | SDIO/USB                                                                            |                                                                                     | /                                                                                     |         |
|          | BT Interface                                                                        | SDIO/USB                                                                            |                                                                                     | UART                                                                                  |         |
|          | BT Version                                                                          | BLE5.2/SLE1.0                                                                       |                                                                                     |                                                                                       |         |



## About Us

Earda Technologies Co., Ltd was established in 2007, is a national high-tech enterprise integrating R&D, manufacturing and sales of IoT communication modules and sensing modules. The company was successfully listed on the New OTC market in 2017, has been serving many of the world's leading customers and operators, and has developed into one of the world's well-known IoT module suppliers.

Annual Shipments

**60** M+

Automatic Testing

**30** Lines +

SMT

**10** Lines

Empolyees

**330** +

## Partners

Skyworth

ZTE 中兴



CVTE

vantiva   
reshaping the edge

TOSHIBA

 LEDVANCE

FSL



SDMC

arcadyan

SERCOM

airtel

 Prime

innopia  
Better Life with Smart media & things



Telink



REALTEK

POSSUMIC  
正和微芯

ST  
life.augmented

ASR

MEDIATEK



SEMTECH

UNISOC

 SILICON LABS

NORDIC  
SEMICONDUCTOR

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