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## **AirLink UltraSky 3/4G**

### **Outdoor Industrial Wireless Router**



## Application Fields :

- **Mobile Broadband,**
- **Industrial Routing**
- **Automotive and Transportation**
- **Green Energy**
- **Wireless Payment**
- **Smart Metering**
- **Personal Tracking**
- **Car-mounted DVR**
- **Smart Industry**
- **Medical Surveillance**
- **Charging Pile**
- **Video Surveillance etc.**



## Features

- 1、CPU : MTK7628 580MHz,FLASH:16MB (max32MB),DDR2:64MB;**
- 2、Support OpenWRT;**
- 3、Support 2.4GHz IEEE802.11bgn 300Mbps(2T2R) ;**
- 4、One \*PCI-E Port, Support 3G/4G module with PCIE interface**
- 5、Support one Port 10/100Mbps LAN / WAN Auto MDI/MDIX**
- 6、Support UART Port RS232**
- 7、Support Reset default**
- 8、Power 12V /2A Supports 5-16V wide voltage**
- 9、Support -20℃ ~ +70℃ , Non-operating temperature: -40℃ to 90℃**
- 10、Support VPN(PPTP/L2TP)**

## Specification

| Hardware     |                              |                                                                               |
|--------------|------------------------------|-------------------------------------------------------------------------------|
| H/W platform | CPU                          | MTK7628 580MHz                                                                |
|              | RAM                          | DDR2 64MB                                                                     |
|              | Flash                        | 16MB SPI Flash                                                                |
|              | 3G/4G                        | WCDMA/EVDO/TD-SCDMA/TDD-LTE/FDD-LTE<br>(*Refer to 3G/4G Module Specification) |
| WAN          | 1x100M Support Auto MDI/MDIX |                                                                               |
| LAN          | 1x100M Support Auto MDI/MDIX |                                                                               |
|              | Users                        | Max 30 users via Wireless, Max 120 users via wired                            |
|              | Modulation                   | OFDM: BPSK, QPSK, 16 QAM, 64QAM DSSS: DBPSK, DQPSK, CCK                       |
|              | Work mode                    | 4G/AP/Router/Repeater/Bridge /WISP mode                                       |
|              | Spectrum scanning            | Real-time                                                                     |
|              | Antenna                      | 2X2 MIMO                                                                      |
| Security     | Auth                         | WPA                                                                           |
|              | Security                     | Client filter , Disable SSID , VLAN , VMSSID ,                                |
|              | ACL                          | Mac filter                                                                    |
|              | QoS                          | Internet up to 10K/user(support setting)<br>Internet no limit                 |



|                             |                                |                                                                                                                                                                                                                                        |
|-----------------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                             | <b>URL filter</b>              | Support                                                                                                                                                                                                                                |
| <b>OS</b>                   | OpenWRT                        |                                                                                                                                                                                                                                        |
| <b>VPN client</b>           | <b>IPSEC</b>                   | \                                                                                                                                                                                                                                      |
|                             | <b>PPTP</b>                    | Support                                                                                                                                                                                                                                |
|                             | <b>L2TP</b>                    | Support                                                                                                                                                                                                                                |
|                             | <b>GRE</b>                     | Support                                                                                                                                                                                                                                |
| <b>VPN sever</b>            | VPN Sever                      | Support                                                                                                                                                                                                                                |
| <b>Network management</b>   | <b>Method</b>                  | WEB                                                                                                                                                                                                                                    |
|                             | <b>Upgrade</b>                 | Mac address copy<br>configuration file to import and export<br>Web upgrade software ...                                                                                                                                                |
|                             | <b>Online management</b>       | Customize                                                                                                                                                                                                                              |
| <b>Bandwidth Management</b> | <b>QoS</b>                     | Based on client IP or MAC                                                                                                                                                                                                              |
| <b>WIFI</b>                 | <b>Wi-Fi Standard</b>          | IEEE 802.11 b g n                                                                                                                                                                                                                      |
|                             | <b>WiFi Bands</b>              | 2.412-2.472GHz                                                                                                                                                                                                                         |
|                             | <b>Basic function</b>          | WiFi Enable/Disable;<br>SSID Enable/Disable;<br>SSID in Chinese<br>2.4GHz Channel: 1-13;<br>Bandwidth optional: 20MHz, 40MHz, Auto                                                                                                     |
|                             | <b>Data transmission rates</b> | 11n: 300/270/243/216/162/108/81/54/27Mbps;<br>135/121.5/108/81/54/40.5/27/13.5Mbps;<br>130/117/104/78/52/39/26/13Mbps;<br>65/58.5/52/39/26/19.5/13/6.5Mbps;<br>11g: 54/48/36/24/18/12/9/6M (adaptive) ;<br>11b: 11/5.5/2/1M (adaptive) |
|                             | <b>Distance</b>                | 200 meters (open area)                                                                                                                                                                                                                 |
|                             | <b>RF output</b>               | 802.11n:15dBm for OFDM mode<br>802.11g: 17dBm for OFDM mode<br>802.11b: 20dBm fro CCK mode                                                                                                                                             |
|                             | <b>Receiving sensitivity</b>   | 300M_2.4G: -67dBm;<br>270M_2.4G: -68dBm;<br>195M_2.4G: -68dBm;<br>130M_2.4G: -68dBm;                                                                                                                                                   |

|                              |                          |                                                                                                                                            |
|------------------------------|--------------------------|--------------------------------------------------------------------------------------------------------------------------------------------|
|                              |                          | 54M_2.4G: -69dBm;<br>6M_2.4G: -81dBm                                                                                                       |
|                              | <b>Working mode</b>      | Router mode , AP/Client mode, Repeater mode , WDS mode, WISP mode                                                                          |
|                              | <b>Security settings</b> | Wireless MAC address filter ;<br>Wireless safety function ;<br>64/128/152 bits WEP Encryption ;<br>WPA-PSK/WPA2-PSK, WPA/WPA2 ;<br>WPS QSS |
| <b>Interface</b>             | <b>Ethernet</b>          | 1 Port 10/100 Mbps RJ45 Port, Support Auto MDI/MDIX                                                                                        |
|                              | <b>Antennas</b>          | External WIFI N-Female antenna interface , 3G/4G antenna interface Main , AUX                                                              |
|                              | <b>Power</b>             | Standard                                                                                                                                   |
|                              | <b>LED</b>               | System indicator<br>4G/3G indicator                                                                                                        |
|                              | <b>Cellular</b>          | WCDMA/EVDO/TD-SCDMA/TDD-LTE/FDD-LTE<br>(*Refer to 3G/4G Module Specification)                                                              |
|                              | <b>SIM card slot</b>     | 1* SIM slot                                                                                                                                |
|                              | <b>Button</b>            | Reset                                                                                                                                      |
| <b>Power</b>                 | <b>Consumption</b>       | Max 8W                                                                                                                                     |
|                              | <b>Power</b>             | 5-16V/2A DC input                                                                                                                          |
| <b>Physical</b>              | <b>Size</b>              | 58*42*74mm (L×W×H)                                                                                                                         |
|                              | <b>Weight</b>            | TBD                                                                                                                                        |
|                              | <b>Material</b>          | PCBA                                                                                                                                       |
| <b>Operating environment</b> | <b>Temperature</b>       | Standard operating temperature: -20℃ to 70℃<br>Non-operating temperature: -40℃ to 90℃                                                      |
|                              | <b>Humidity</b>          | Standard operating humidity: 10% to 90%RH Non-condensing; Non-operating humidity: 5% to 90%RH Non-condensing;                              |
|                              |                          |                                                                                                                                            |
| <b>Accessories</b>           | <b>Antennas</b>          | 1 *3G/4G antennas<br>2 *WIFI antennas                                                                                                      |
|                              |                          |                                                                                                                                            |

## 3G/4G Module Specification

- **LTE-FDD: B1/B3/B5/B7/B8/B20**
- **LTE-TDD: B40**
- **WCDMA: B1/B5/B8**
- **GSM: 850/900/1800/1900**

|                                        |                                                                                                                                                                                                                                                                                                      |
|----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tx Frequency</b>                    | <b>GSM/GPRS/EDGE:</b><br>850: 824.2 MHz ~ 848.8 MHz<br>1900: 1850.2 MHz ~ 1909.8MHz<br><b>WCDMA:</b><br>Band V: 826.4 MHz ~ 846.6 MHz<br>Band II: 1852.4 MHz ~ 1907.6 MHz<br>Band IV: 1712.4 MHz ~ 1752.6 MHz<br><b>CDMA2000:</b><br>BC0: 824.70 MHz ~ 848.31 MHz<br>BC1: 1851.25 MHz ~ 1908.75 MHz  |
| <b>Rx Frequency</b>                    | <b>GSM/GPRS/EDGE:</b><br>850: 869.2 MHz ~ 893.8 MHz<br>1900: 1930.2 MHz ~ 1989.8 MHz<br><b>WCDMA:</b><br>Band V: 871.4 MHz ~ 891.6 MHz<br>Band II: 1932.4 MHz ~ 1987.6 MHz<br>Band IV: 2112.4 MHz ~ 2152.6 MHz<br><b>CDMA2000:</b><br>BC0: 869.70 MHz ~ 893.31 MHz<br>BC1: 1931.25 MHz ~ 1988.75 MHz |
| <b>Maximum Output Power to Antenna</b> | <b>GSM/GPRS/EDGE:</b><br>850: 31.94 dBm<br>1900: 29.62 dBm<br><b>WCDMA:</b><br>Band V: 22.70 dBm<br>Band II: 22.91 dBm<br>Band IV: 22.49 dBm<br><b>CDMA2000:</b><br>BC0: 23.59 dBm<br>BC1: 23.64 dBm                                                                                                 |

### PCB descriptions

