**RF Product Technical Information List**

**RF产品技术信息清单**

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| **General Technical Information**  **常规技术信息** | **Details / Supplied by the client**  **详细说明 / 由客户填写或提供** |
| **Hardware Version**  **硬件版本** | Hardware version硬件版本： ；  (Only required if testing SAR or applying for IC certification. / 如果有做SAR测试或者申请IC certification认证才需要填写.) |
| **Software Version**  **软件版本** | Software version软件版本： ；  (Only required if testing SAR or applying for IC certification. / 如果有做SAR测试或者申请IC certification认证才需要填写.) |
| **FVIN**  **(Firmware Version Identification Number)固件版本识别号** | FVIN固件版本识别号： ；  (Only required if applying for IC certification. / 如果申请IC certification认证才需要填写.) |
| **Highest Internal Frequency (Except RF)**  **最高内部频率(除射频之外)** | 1.2GHz 16MHz  Others: MHz |
| **Extreme Voltage**  **极限工作电压** | Normal voltage: V; Low voltage: V; High voltage: V |
| **Temperature Range**  **工作温度范围** | Low temperature: °C ~ High temperature: °C  (Shall be consistent with the user manual. / 需与说明书信息保持一致.) |

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| **有Bluetooth蓝牙功能(Required to fill if Bluetooth function is supported)** YesNo | |
| **Bluetooth Version**  **蓝牙版本** | 4.2 5.0 5.1 5.2 5.3 5.4  Classic (BR/EDR) mode only BLE mode only  Dual mode (Classic+ BLE) |
| **BLE Data Rate**  **BLE速率** | 1Mb/s (Default Support) 2Mb/s (Optional)  (Only required if BLE is supported. / 如果支持BLE才需要填写.) |
| **BLE(2M) Frequency Band BLE(2M) 频段** | 2402MHz- 2480MHz 2404MHz- 2478MHz |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率.) |

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| **有Wi-Fi功能(Required to fill if Wi-Fi function is supported)** YesNo | |
| **Frequency Range**  **频率范围** | 2.412-2.472GHz  2.484GHz only for Japan  5.15-5.25GHz  5.25-5.35GHz  5.47-5.725GHz  5.725-5.85GHz  5.850-5.895GHz  5.925-6.425GHz  6.425-6.525GHz  6.525-6.875GHz 6.875-7.125GHz |
| **Supported Bandwidth**  **支持带宽** | 20MHz  40MHz  80MHz  160MHz  320MHz |
| **Modulation Technique**  **调制技术** | For 2.4GHz Wi-Fi:  802.11b  802.11g  802.11n  802.11ax  802.11be  For 5GHz Wi-Fi:  802.11a  802.11n  802.11ac  802.11ax  802.11be  For 6GHz Wi-Fi:  802.11ax  802.11be |
| **Channel Puncturing**  **信道穿刺** | Support;  Not support  (Only required if 802.11be supported. / 如果支持802.11be才需要填写.) |
| **TPC Function**  **发射功率控制** | Support;  Not support  (Only required if band 5.25-5.35GHz and/or 5.47-5.725GHz supported. / 如果支持频段5.25-5.35GHz和或5.47-5.725GHz才需要填写.) |
| **DFS Function**  **动态频率选择** | Master;  Slave with Radar detection;  Slave without Radar detection  (Only required if band 5.25-5.35GHz and/or 5.47-5.725GHz supported. / 如果支持频段5.25-5.35GHz和或5.47-5.725GHz才需要填写.) |
| **Antenna Type天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain天线增益** | Antenna 1:\_\_\_\_\_dBi;  Antenna 2:\_\_\_\_\_\_dBi;  Antenna 3:\_\_\_\_\_dBi;  Antenna 4: \_\_\_\_\_ dBi;  Antenna 5:\_\_\_\_\_dBi;  Antenna 6: \_\_\_\_\_ dBi;  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **MIMO Mode多天线模式** | Support;  Not support  (Only required if there are 2 or more antennas. / 如果有2根或以上天线才需要填写.) |
| **RF Conducted Power**  **射频传导功率** | (Max. RF AV Conducted Power declared by the manufacture. / 厂商宣称最大射频平均传导功率)  For 2.4GHz Wi-Fi:  802.11b dBm; 802.11g dBm;  802.11n(HT20) dBm; 802.11n(HT40) dBm;  802.11ax(HE20) dBm; 802.11ax(HE40) dBm;  802.11be(EHT20) dBm; 802.11be(EHT40) dBm;  For 5GHz Wi-Fi:  802.11a dBm; 802.11n(HT20) dBm;  802.11n(HT40) dBm; 802.11ac(VHT20) dBm;  802.11ac(VHT40) dBm; 802.11ac(VHT80) dBm;  802.11ac(VHT160) dBm; 802.11ax(HEK20) dBm;  802.11ax(HE40) dBm; 802.11ax(HE80) dBm;  802.11ax(HE160) dBm; 802.11be(EHT20) dBm;  802.11be(EHT40) dBm; 802.11be(EHT80) dBm;  802.11be(EHT160) dBm;  For 6GHz Wi-Fi:  802.11ax(HE20) dBm; 802.11ax(HE40) dBm;  802.11ax(HE80) dBm; 802.11ax(HE160) dBm;  802.11be(EHT20) dBm; 802.11be(EHT40) dBm;  802.11be(EHT80) dBm; 802.11be(EHT160) dBm;  802.11be(EHT320) dBm; |

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| **有2.4GHz自定义功能(Required to fill if 2.4GHz proprietary function is supported)** YesNo | |
| **Frequency Range**  **频率范围** | Lowest Frequency: GHz  Highest Frequency: GHz |
| **Channel Number and List**  **信道数和信道列表** | Channel Number: ;  Channel List: ; ; ; ;  (Can be provided in the form of attachment. / 可以通过附件形式提供.) |
| **Communication Mode**  **通信模式** | Simplex单工 Half duplex半双工 |
| **Modulation Type**  **调制类型** | GFSK FSK QPSK Others\_\_\_\_\_\_\_\_\_\_; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率.) |

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| **有5.8GHz自定义功能(Required to fill if 5.8GHz proprietary function is supported)** YesNo | |
| **Frequency Range**  **频率范围** | Lowest Frequency: GHz  Highest Frequency: GHz |
| **Channel Number and List**  **信道数和信道列表** | Channel Number: ;  Channel List: ; ; ; ;  (Can be provided in the form of attachment. / 可以通过附件形式提供.) |
| **Communication Mode**  **通信模式** | Simplex单工 Half duplex半双工 |
| **Modulation Type**  **调制类型** | GFSK FSK QPSK Others ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率.) |

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| **有Zigbee功能(Required to fill if Zigbee function is supported)** YesNo | |
| **Frequency Range**  **频率范围** | 2.405-2.480GHz  Others: Lowest Frequency: GHz  Highest Frequency: GHz |
| **Modulation Type**  **调制类型** | O-QPSK BPSK Others ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ; (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率.) |

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| **有****ANT+功能(Required to fill if ANT+ function is supported)** YesNo | |
| **Frequency Range**  **频率范围** | 2.457GHz（For reference供参考）  Others: Lowest Frequency: GHz  Highest Frequency: GHz |
| **Modulation Type**  **调制类型** | FSK Others ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率) |

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| **有UWB功能(Required to fill if UWB function is supported)** YesNo | |
| **UWB Channels and Center Frequency with Bandwidth**  **UWB信道号和中心频率和带宽** | Channel 0: 399.36MHz; Bandwidth: 499.2MHz;  Channel 1: 3494.4MHz; Bandwidth: 499.2MHz;  Channel 2: 3993.6MHz; Bandwidth: 499.2MHz;  Channel 3: 4492.8MHz; Bandwidth: 499.2MHz;  Channel 4: 3993.6MHz; Bandwidth: 1331.2MHz;  Channel 5: 6489.6MHz; Bandwidth: 499.2MHz;  Channel 6: 6988.8MHz; Bandwidth: 499.2MHz;  Channel 7: 6489.6MHz; Bandwidth: 1081.6MHz;  Channel 8: 7488MHz; Bandwidth: 499.2MHz;  Channel 9: 7987.2MHz; Bandwidth: 499.2MHz;  Channel 10: 8486.4MHz; Bandwidth: 499.2MHz;  Channel 11: 7987.2MHz; Bandwidth: 1331.2MHz;  Channel 12: 8985.6MHz; Bandwidth: 499.2MHz;  Channel 13: 9484.8MHz; Bandwidth: 499.2MHz;  Channel 14: 9984MHz; Bandwidth: 499.2MHz;  Channel 15: 9484.8MHz; Bandwidth: 1354.97MHz; |
| **Modulation Type**  **调制类型** | BPM Others ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |

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| **有其他无线技术(Required to fill if other Wireless technologies are used)** YesNo | |
| **Technology Type**  **技术类型** | NFC;  Z-Wave;  LoRa;  RFID; Others ; |
| **Frequency Range**  **频率范围** | MHz（For reference供参考, Such as 125kHz, 13.56MHz, 27MHz, 40MHz, 49MHz, 315MHz, 433MHz, 868MHz, 915MHz, etc.）  Others: Lowest Frequency: MHz,  Highest Frequency: MHz |
| **Channel Number and List**  **信道数和信道列表** | Channel Number: ;  Channel List: ; ; ; ;  (Can be provided in the form of attachment. / 可以通过附件形式提供.) |
| **Modulation Type**  **调制类型** | GFSK FSK QPSK FM Others ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for FCC ID or MIC. / 如果申请FCC ID或者MIC则需提供天线报告或者规格书.) |
| **Antenna Gain**  **天线增益** | dBi  (It needs to be the highest Peak Gain in the operating frequency band. / 需要是操作频段内最高Peak Gain.) |
| **RF Conducted Power**  **射频传导功率** | dBm  (Max. RF Conducted Power declared by the manufacture. / 厂商宣称最大射频传导功率) |

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| **有全球导航卫星接收功能(Required to fill if GNSS receiver function is supported)** YesNo | | | | |
| **GNSS Constellations**  **GNSS星座** | BDS;  Galileo;  GLONASS;  GPS;  SBAS | | | |
| **GNSS Signals and RNSS Frequency Band Supported**  **支持的GNSS信号和无线电导航卫星服务频段** | **GNSS Constellations** | **GNSS Signals** | **RNSS Frequency Band (MHz)** | **Supported** |
| BDS | B1I | 1559 to 1610 |  |
| B1C | 1559 to 1610 |  |
| Galileo | E1 | 1559 to 1610 |  |
| E5a | 1164 to 1215 |  |
| E5b | 1164 to 1215 |  |
| E6 | 1215 to 1300 |  |
| GLONASS | G1 | 1559 to 1610 |  |
| G2 | 1215 to 1300 |  |
| GPS | L1 C/A | 1559 to 1610 |  |
| L1C | 1559 to 1610 |  |
| L2C | 1215 to 1300 |  |
| L5 | 1164 to 1215 |  |
| SBAS | L1 | 1559 to 1610 |  |
| L5 | 1164 to 1215 |  |
| **Antenna Type天线类型** | PCB PIFA Integral IPEX R-SMA Others ; | | | |

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| **有2G/3G/4G/5G功能(Required to fill if 2G/3G/4G/5G cellular function is supported)** YesNo | | |
| **GSM(2G)** | **Band** | 850MHz  900MHz  1800MHz  1900MHz |
| **UMTS(3G)** | **Band** | Band I (2100MHz)  Band II (1900MHz) Band III (1800MHz)  Band IV (1700MHz)  Band V (850MHz)  Band VIII (900MHz)  Others ; |
| **E-UTRA(4G)** | **Technology Type** | LTE;  Cat 1bis;  NB-IoT;  eMTC; |
| **Band** | 1;  2;  3;  4;  5;  6;  7;  8;  9;  10;  11;  12;  13;  14;  17;  18;  19;  20;  21;  22;  23;  24;  25;  26;  27;  28;  30;  31;  32;  33;  34;  35;  36;  37;  38;  39;  40;  41;  42;  43;  44;  45;  46;  47;  48;  50;  51;  65;  66;  68;  70;  71;  72;  74;  85;  Others ; |
| **CA Band**  Not support  support | Intra-Band contiguous ;  Intra-Band non-contiguous ;  Inter-Band ;  (Can be provided in the form of attachment if support. / 如果支持可以通过附件形式提供.) |
| **UE Power Class** | 3(23dBm);  5(20dBm); |
| **Release Version** | ; |
| **NR(5G)** | **Band** | Sub-6G Band (FR1)  n1;  n2;  n3;  n5;  n7;  n8;  n12;  n14;  n20;  n25;  n26;  n28;  n30;  n34;  n38;  n39;  n40;  n41;  n46;  n48;  n51;  n66;  n70;  n71;  n77;  n78;  n79;  n80;  Others ;  mmW Band (FR2)  n257;  n258;  n260;  n261;  Others ; |
| **CA Band**  Not support  support | Intra-Band contiguous ;  Intra-Band non-contiguous ;  Inter-Band ;  (Can be provided in the form of attachment if support. / 如果支持可以通过附件形式提供.) |
| **EN-DC Band**  Not support  support | EN-DC Band ;  (Can be provided in the form of attachment if support. / 如果支持可以通过附件形式提供.) |
| **SCS** | 15kHz, Band ;  30kHz, Band ;  60kHz, Band ;  120kHz, Band ;  240kHz, Band ;  (Can be provided in the form of attachment. / 可以通过附件形式提供.) |
| **Coding Technology** | DFT-s-OFDM Band ;  CP-OFDM Band ; |
| **Modulation** | Pi/2 BPSK, Band ;  QPSK, Band ;  16QAM, Band ;  64QAM, Band ;  256QAM, Band ; |
| **UE Power Class** | 2(26dBm);  5(23dBm); |
| **Release Version** | ; |
| **Antenna Type**  **天线类型** | PCB PIFA Integral IPEX R-SMA Others ;  (The antenna report/ specification is required if applying for MIC. / 如果申请MIC则需提供天线报告或者规格书.) | |
| **Antenna Gain**  **天线增益** | **2G** | GSM 850/900MHz: dBi; GSM 1800/1900MHz: dBi |
| **3G** | Band dBi |
| **4G** | Band dBi |
| **5G** | Band dBi |
| (It needs to be the highest Peak Gain in each band. / 需要每个频段内最高Peak Gain.) | |