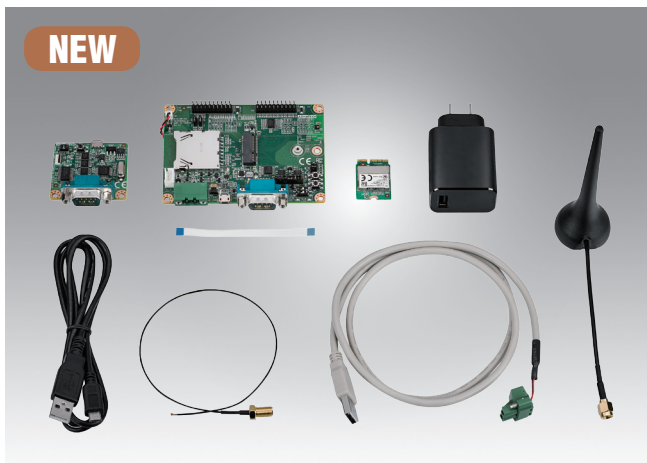# WISE-DK1520 Starter Kit

**Development Kit for Low Power Wi-Fi M2.COM Module WISE-1520**
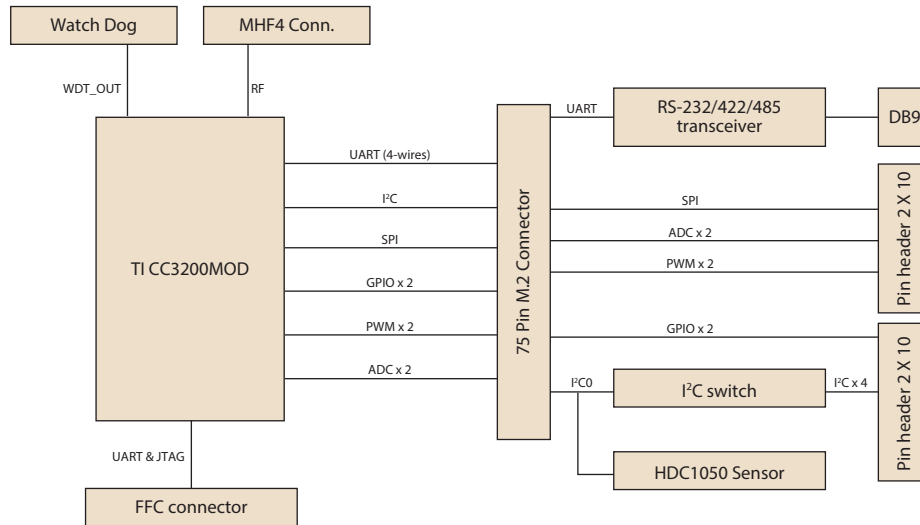
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m2.COM

CE FCC RoHS COMPLIANT 2002/95/EC

## Features

- Development kit for WISE-1520
- ARM Cortex-M4 processor
- RAM 256 KB memory / 1MB Serial Flash
- Built-in Low-power Wi-Fi connectivity
- Support 1 UART, 1 I2C , 1 SPI, 2 GPIO, 2 PWM, 2 ADC
- 22 x 30 mm M.2 key E
- Build-in temperature and humidity sensor
- Cable & antenna included
- WISE-Agent built-in
- WISE-PaaS/RMM cloud solution ready
- SDK for development

## Specifications

| | | |
|---|---|---|
| Processor System | CPU/MCU | TI ARM Cotec-M4 Processor |
| | RAM | 256KB |
| | Flash | 1MB |
| Form Factor | | WISE-1520 Starter Kit |
| Wireless Network | Standard | IEEE802.11 b/g/n |
| | Frequency Band | 2.412~2.472 GHz |
| | Channels | World Wide 13<br>Channels 1-11 with active scan,<br>Channels 12,13 with passive scan |
| | Topology | Star network |
| | Transmit Power | 17 dBm at 1 DSSS<br>17.25 dBm at 11 CCK<br>13.5 dBm at 54 OFDM |
| | Receiver Sensitivity | -94.7 dBm at 1 DSSS<br>-87 dBm at 11 CCK<br>-73 dBm at 54 OFDM |
| | RF Data Rate | UDP:16Mbps<br>TCP: 13Mbps |
| | Function | End node |
| | Antenna connector | MHF4 connector |
| Ethernet | | - |
| Cellular | | - |
| GPS | | - |
| Programing Port | | - |
| Debug Port | | 1  develop and debug with WISE-ED20 |
| Watchdog Timer | | 1 TPS3820 WDT, 900ms time-out |
| Indicator and Button | LED | 2, Power LED, CB_PWR_ON LED |
| | Button | 2, Reset, Wake Up |
| | Serial Port | - |
| | Switch | 2, Re-configuration, RF disable |
| I/O | RS-232/422/485 | 1 (by jumper setting) |
| | SPI | 1 |
| | ADC | 2 |
| | PWM | 2 |
| | GPIO | 2 |
| | I²C | 1 (with 1 to 4 port switch) |
| | Sensor | 1 Humidity/Temperature sensor |
| Expansion | SIM Socket | - |
| | Mini PCIe Socket | - |
| Power | Power Supply Voltage | 5V |
| | Power Consumption | - |

## Block Diagram



## Specifications Cont.

| Environment | Operational Temperature | -20 ~ 70° C |
|---|---|---|
| | Operating Humidity | 5% ~ 95% Relative Humidity, non-condensing |
| Mechanical | Dimensions (W x D) | 100 x 72 mm |
| Operating System | | TI RTOS/mbed OS |
| Certification | | CE/FCC Class B |

## Ordering Information

| Part No. | Description |
|---|---|
| WISE-DK1520-TB00E | WISE-1520 M2.COM quick starter kit with TI-RTOS -20 ~ 70° C |

## Packing List

| Part Number | Part Description |
|---|---|
| 9696150000E | ASS'Y WISE-DB1500 A101-1 M2.COM CARRIER |
| 9696152000E | ASS'Y WISE-1520 A101-1 CC3200MOD M2.COM MODUAL |
| 9696WED200E | ASS'Y WISE-ED20 A101-1 M2.COM Daughter Board |
| XRISC-ADP-10HW-AG | ADP A/D 100-240V 10W 5V WM |
| 1653300100 | MINI JUMPER 2P 2.54mm 180D(F) 1132-040-02 |
| 1700015038 | FPC Cable 10P-0.5mm 7.9cm for DCU2.0 |
| 1700023619-01 | A cable USB-A 4P(M)/micro USB 5P(M) 1m ADAM-T212 |
| 1700025875-01 | A cable 1P-2.54*20/1P-2.54*20 20cm |
| 1700025876-01 | M cable USB-A 4P(M)/Plug-in 2P-5.0 90CM |
| 1750007965-01 | Antenna Cable R/P SMA (M) to MHF4, 300mm |
| 1750008314-01 | Antenna 2.4GHz 2dBi SMA Male Reverse L=100mm |
| 1931000590 | Screw M2.5x5L F/S D=5.3 H=0.8 (1+) ST Ni |
| 193A231540 | POST F=M3*6L M=M3*6L D=5 d=2.88 B=5 H=15 Cu |
| 968EMLSAP1 | SUSIAccess Pro V2.0 Package download card/flyer/ |