

# WISE-DK1510 Starter Kit

Development Kit for M2.COM LoRa IoT  
Node WISE-1510

NEW



## Features

- Development kit for WISE-1510
- ARM Cortex-M4 processor
- RAM 64 KB memory / 256 KB Flash
- Compatible to support public LoRaWAN or LoRa private networks
- Support 1 UART, 1 I<sup>2</sup>C , 1 SPI, 8 GPIO, 1 PWM, 4 ADC, 1 USB
- 22 x 30 mm M.2 key E
- Build-in temperature and humidity sensor
- Cable & antenna included
- WISE-PaaS/RMM cloud solution ready
- SDK for development

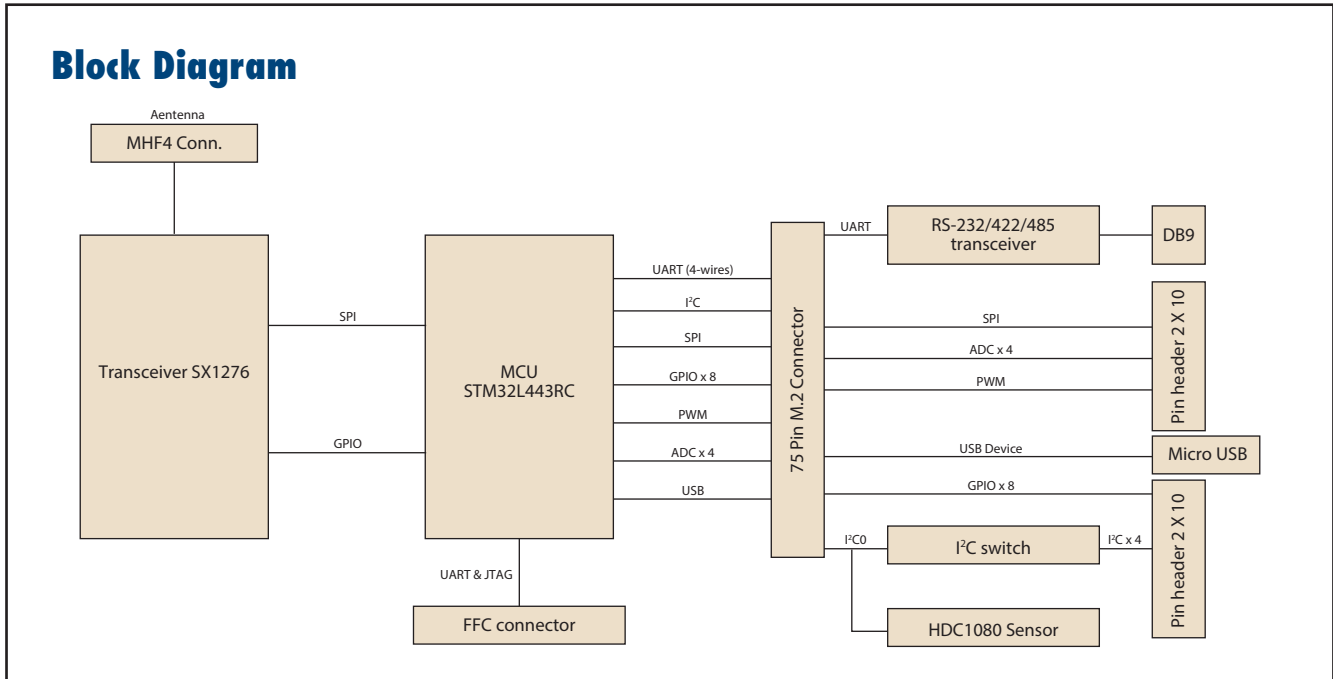
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## Specifications

Processor System	CPU/MCU	STM ARM Cortex-M4 Processor
	RAM	64KB
	Flash	256KB
Form Factor		WISE-1510 Starter Kit
Wireless Network	Standard	LoRaWAN / LoRa Private Network (WISE-Link)
	Frequency Band	863-870MHz for Europe (LoRaWAN / LoRa Private Network w/ WISE-3610) 902-928MHz for North America (LoRaWAN / LoRa Private Network w/ WISE-3610) 920-928MHz for Japan (LoRa Private Network w/ WISE-3610)
	Channels	Spreading Factor: 7 ~ 12
	Topology	Star network
	Transmit Power	Up to +18dBm
	Receiver Sensitivity	Up to -136dBm at SF = 12 / 125KHz
	RF Data Rate	50 kbps at FSK mode for Europe 21.9 kbps at SF7 mode for North America 5.47 kbps at SF7 mode for Japan
	Function	End node
	Antenna connector	MHF4 connector
Ethernet		-
Cellular		-
GPS		-
Programming Port		-
Debug Port		1 develop and debug with WISE-ED20
Watchdog Timer		-
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	UART	1 RS-232/422/485 (by JUMPER setting)
	SPI	1
	ADC	4
	PWM	1
	GPIO	8
	USB	1 USB micro Type B (device only)
	I <sup>2</sup> C	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		mbed OS
Certification		CE/IC/TELEC/FCC Class B

## Ordering Information

Part No.	Description
WISE-DK1510-MBNAE	WISE-1510 LoRaWAN Starter Kit-NA915
WISE-DK1510-MBEUE	WISE-1510 LoRaWAN Starter Kit-EU868
WISE-DK1510-MBJPE	WISE-1510 LoRaWAN Starter Kit-JP923

## Packing List

Part Number	Part Description
9696150000E	ASS'Y WISE-DB1500 A101-1 M2.COM CARRIER
9696151011E	ASS'Y WISE-1510 B101-1 M2.COM LoRa MODULE
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
1750008569-01	Antenna Cable SMA to MHF4 L=300mm
1750008598-01	Sub G antenna Dipole L=195mm, 1dBi 902~928 MHz
1750008599-01	Sub G antenna Dipole L=195mm, 1dBi 863~870 MHz
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/