Low-Power Long Range Weightless® Technology Base Station (Starter Kit)

General Features
• On-board Weightless™ protocol stack
• Ethernet
• Dimensions: 135 x 95 x 36 mm
• Environmentally friendly, RoHS compliant
• FCC, CE compliant
• Supports end-device firmware upgrade (OTA) over-the-air
• Dual core ARM Cortex-A9 @667MHz running Linux

Operational
• Power supply: AC Adaptor
• Temperature range:
Operating: -10°C to 50°C
Storage: -20°C to 60°C
• Uplink Data Rate: 100/50/12.5/6.25kbps single channel or 10/5/1.25/0.625kbps with 8 sub-channels
• Downlink Data Rate: 100/50/12.5/6.25kbps
• Memory: 1GB DDR3 SDRAM

RF/Analog Features
• Supports 868 MHz & 915 MHz frequency bands
• Sensitivity: 0.625kbps -128dbm
• Transmit Power: adjustable up to +30 dBm.
• PSK/GMSK modulation

Description
Ubiik's Weightless Base Station creates a low-power, long range network (LPWAN) suitable for IoT devices. The network can support bi-directional wireless communication of data between Weightless base station and high density of end-devices. The Base Station complies with the open, license-free Weightless protocol specifications defined by the Weightless SIG.

Applications
• Automated Meter Reading
• Home and Building Automation
• Wireless Alarm and Security Systems
• Industrial Monitoring and Control
• Machine to Machine (M2M)
• Internet of Things (IoT)

Revision History

Revision Code	Date	Description	Comments
1.1	Mar. 13, 2018	Initial Release	

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TO OUR VALUED CUSTOMERS AND PARTNERS
It is our intention to provide our valued customers with the best documentation possible to ensure successful use of your Ubiik products. We will strive to improve publications to better suit your needs. Our publications will be refined and enhanced as new volumes and updates are introduced. If you have any questions or comments regarding this publication, please contact the Marketing Communications Department via E-mail at info@ubiik.com. We welcome your feedback. For more information, please visit our website www.ubiik.com

1.0 Device Overview

Main Components
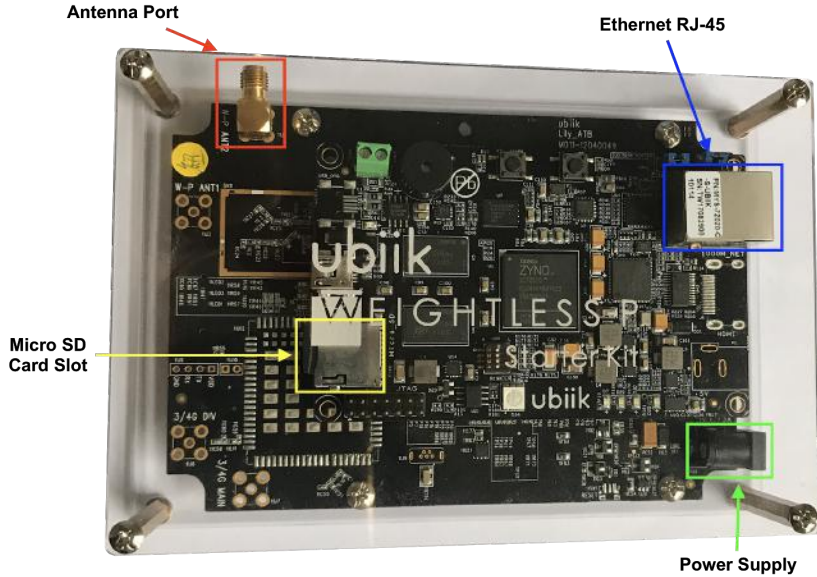
2.0 General Specifications

Table 2-1 General Specifications

Specification	
Dimension	150 x 102 x 36 mm
Processor	Dual core ARM Cortex-A9 @667MHz running Linux
Interface	USB, Ethernet
Memory	1GB DDR3 SDRAM
Power Supply	AC adaptor 5V/2A
Frequency	868/915MHz
UL Data rate	100/50/12.5/6.25kpbs single channel 10/5/1.25kbps for 8 sub-channels
DL Data Rate	100/50/12.5/6.25kpbs
Sensitivity	-128dBm @ 0.625kbps
TX power	Up to 30 dBm (adjustable)
Modulation	GMSK/PSK
Protocol	Weightless protocol stack

3.0 Notes on Antenna

Ubiik's standard base station antenna achieves a maximum peak gain of 0.7dBi . The antenna data sheet is available upon request. Please acquire the highest antenna gain to achieve optimal range (Note: max antenna gain regulations differ by region). If you have trouble sourcing the antennas locally, please contact your Ubiik representative.

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