User Manual

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M530S
LTE/EVDO Module

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Introduction

Thank you for your purchase of the M530S LTE/EVDO Module. This device is designed to access the Internet via 4G technology.

Features

- LTE/EVDO
- Uplink speeds up to 50 Mbps
- Downlink speeds up to 100 Mbps
- Operating Frequency Bands
    - LTE: Band 25/26/41
    - EVDO: BC0/BC1/BC10

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Getting Started

This chapter will provide a hardware overview of the M530S LTE/EVDO Module.
The module is operated with defined voltage and pin assignments according to the specification in the next page.

Package Contents

1.

1：M530S LTE/EVDO Module

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Specifications

Note: Specifications are subject to change without notice.

Form Factor	PCI Express Mini Card
Dimension (LxWxH, mm)	50.95 x 36 x 3.9 mm
Weight (g)	10.6 g
Chipset	Qualcomm MDM9615
Connectivity and Data Speed	
LTE Band	FDD: B25/B26, TDD: B41
LTE Data Rate	FDD: Downlink up to 100Mbps, Uplink up to 50Mbps TDD: Downlink up to 68Mbps, Uplink up to 17Mbps (in configuration 3)
3GPP Protocol Support	Release 9, UE Category 3
CDMA 1xRTT/EV-DO	BC0/BC1/BC10
EVDO version	Rev. 0, Rev. A
eHRPD	Yes
Location solution	Standalone GPS, A-GPS, GPS XTRA, Composite Glonass and GPS GNSS systems
Antenna port	
RF Antenna Port	Main, Aux and GNSS
LTE MIMO	B25/B26/B41, DL 2x2 SU-MIMO
EVDO/CDMA Diversity Support	Yes
GPS	Yes, Supports Passive GPS antenna
RF Antenna Connector Type	IPEX 20279
Interface	
USB	USB 2.0 HS
SIM Connector	Interface to SIM Connector as PIN assignment.
UART	Yes
LED Control	Yes, x 3 PINs for LED control signal
GPIOs	Yes, these pins can be optionally configured for UIM, SPI, I2C, or LED use.
Power Info	
Voltage	3.7 V typical, 3.5V ~ 4.2V voltage swing
Power consumption	Max. 3.5W in worst conditions, Typical 2W
Power save mode	Supported and with 28nm Qualcomm Chipset for lower power consumption.
Environment	
Operation Temperature	-30°C to 60°C
Storage Temperature	-30°C to 85°C
Operating System supported	
	Linux, MAC OS X, Windows
Other Supporting Features	
AT Commands	Yes
OMA-DM	Yes, OMA-DM is an optional feature
FW Upgrade Support	Yes, support FW upgrade by DM platform or proprietary auto-checking method
Certifications	
	GCF, CCF, FCC, ALU IOT, Ericsson IOT, Samsung IOT, Sprint certification
Conformance of Environmental Regulation	
Environmental Regulation	RoHS

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Federal Communication Commission Interference Statement

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules.   These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications.   However, there is no guarantee that interference will not occur in a particular installation.   If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

- **Radiation Exposure Statement:**
   This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

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This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm is maintained between the antenna and users, and
2. The transmitter module may not be co-located with any other transmitter or antenna.

As long as 2 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed

*   **IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

*   **End Product Labeling**
    This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: "Contains FCC ID: UZI-M30S58". The grantee's FCC ID can be used only when all FCC compliance requirements are met.

*   **Manual Information To the End User**
    The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.
    The end user manual shall include all required regulatory information/warning as show in this manual.

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