

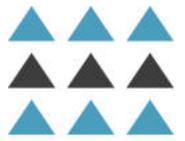
REBOTNIX<sup>®</sup>  
INDUSTRIAL A.I. SOLUTIONS

## ADDON - WLAN/GPS

DOCUMENT VERSION 1.0.2



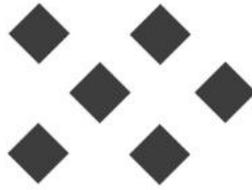
# ABOUT ADDON - SKU: RB\_AOWG8 WLAN/GPS (M8)



The WLAN/GPS Add-On by REBOTNIX combines high-precision RTK GPS with reliable Wi-Fi 6 connectivity in one compact module – delivering centimeter-accurate real-time positioning and stable wireless data transmission simultaneously.

The RTK GPS module supports GPS, GLONASS, Galileo, BeiDou, and QZSS, while the integrated Wi-Fi 6 module provides fast connectivity at up to 2.4 Gbps via 2×2 MU-MIMO on both 2.4 GHz and 5 GHz bands.

A secondary diversity antenna further improves wireless performance. The rugged black anodized aluminum housing is designed for demanding conditions while maintaining a clean, professional appearance. Energy-efficient, scalable, and ready for a wide range of applications.



# SPEZIFIKATIONS

## ELEKTRICAL SPECIFICATIONS

Input Voltage	5V DC via M8 Socket
Power Consumption	300 - 700mA

## ENVIRONMENTAL SPECIFICATIONS:

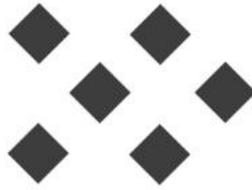
Operating Temperature	-20°C to 70°C
Humidity	Non-condensing

## INTERFACES & CONNECTORS

M8	M8 Socket, 4 Pin
ANT1	SMA connector
ANT2	SMA connector
ANT3	SMA connector

## WIRELESS COMMUNICATION – WLAN

WLAN	IEEE 802.11ax (Wi-Fi 6), 2,4/5 GHz, 2x2 MU-MIMO
Data Rate	Up to 2,4 Gbps



## POSITIONING – RTK GNSS

GNSS	GPS, GLONASS, Galileo, BeiDou, QZSS
Navigation Update Rate	Up to 30 Hz
Position Accuracy	RTK < 0.01 m

## SUPPORTED GNSS MODULES

### MODULE COMPARISON - ZED-F9P / ZED-F9R / ZED-X20P

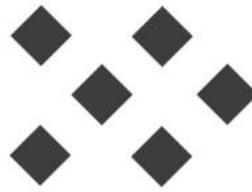
Feature	ZED-F9P	ZED-F9R	ZED-X20P
<b>Main Function</b>	High Precision RTK GNSS	High Precision RTK + Dead Reckoning	All-Band High Precision RTK
<b>Constellations</b>	GPS, GLONASS, Galileo, BeiDou, QZSS, NavIC	GPS, GLONASS, Galileo, BeiDou, QZSS	GPS, GLONASS, Galileo, BeiDou, QZSS, NavIC
<b>IMU/Sensor Fusion</b>	No	Yes (integrated IMU)	No
<b>RTK Accuracy</b>	0.01m + 1ppm CEP	0.01m + 1ppm CEP	0.01m + 1ppm CEP
<b>Update Rate (RTK)</b>	Up to 20 Hz	Up to 4 Hz (30 Hz IMU-only)	Up to 25 Hz
<b>Key Advantage</b>	Standard RTK positioning	Positioning without GPS signal	All GNSS bands supported

### MODULE SHORT DESCRIPTION

ZED-F9P - High-precision multi-band GNSS with RTK, centimeter-level accuracy

ZED-F9R - ZED-F9P with integrated IMU for dead-reckoning during GNSS outages

ZED-X20P - Next-generation multi-band GNSS supporting all major GNSS frequencies

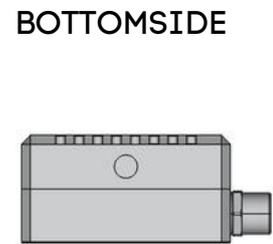
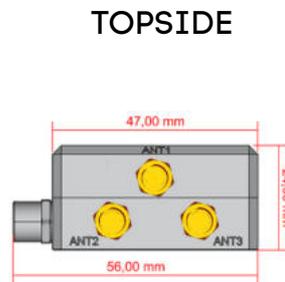
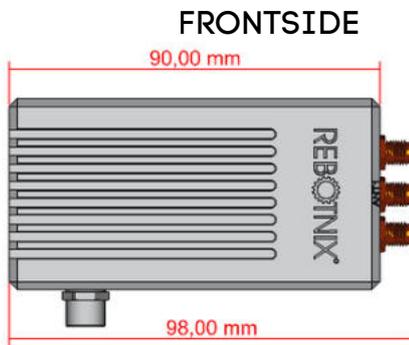


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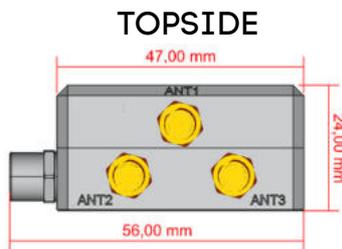
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## TECHNICAL SPECIFICATIONS

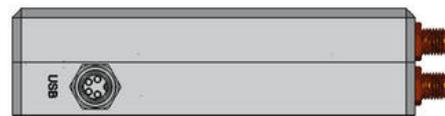
Dimensions	90 x 47 x 24mm (without Antennas)
Weight	150g
Housing	Black anodized aluminum



## CONNECTIVITY



**RIGHTSIDE**



### PORT CONFIGURATION

Feature	ZED-F9P	ZED-F9R	ZED-X20P
<b>Ant 1 (SMA Socket)</b>	RTK GNSS Antena	RTK GNSS Antena	RTK GNSS Antena
<b>Ant 2 (SMA Socket)</b>	WLAN Primary Antena	TimePulse Input (Odometer)	WLAN Primary Antena
<b>Ant 3 (SMA Socket)</b>	WLAN Secondary Antena	WLAN Primary Antena	WLAN Secondary Antena
<b>USB</b>	M8 socket used for power supply (5 V DC) and data transfer.		

PIN 1	PIN 2	PIN 3	GND
+ 5V	USB_D_N	GND	USB_D_P

