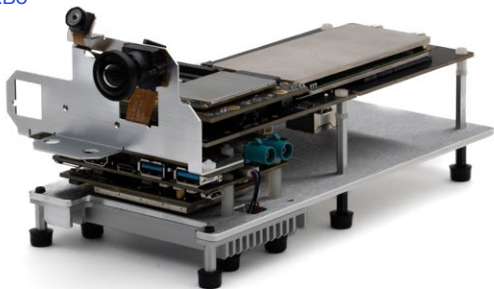**Qualcomm**
robotics RB6
platform

Qualcomm Robotics RB6
Development Kit

Advanced robotics platform featuring Qualcomm® QRB5165N processor with high-performance heterogeneous compute, artificial intelligence engine, computer vision, vault-like security, multimedia, and connectivity including Bluetooth®, Wi-Fi, and 4G/5G.

Setup Guide

RB6DK-SG-01

Qualcomm® Robotics RB6
Development Kit

Component list

01 Qualcomm Robotics RB6 Development Kit
A: QRB5165N SOM (system on module) board
B: Qualcomm Robotics RB6 mainboard
C: Vision mezzanine board
D: AI mezzanine board
E: Mezzanine expansion connectors
F: IMX577 main camera
G: OV9282 tracking camera
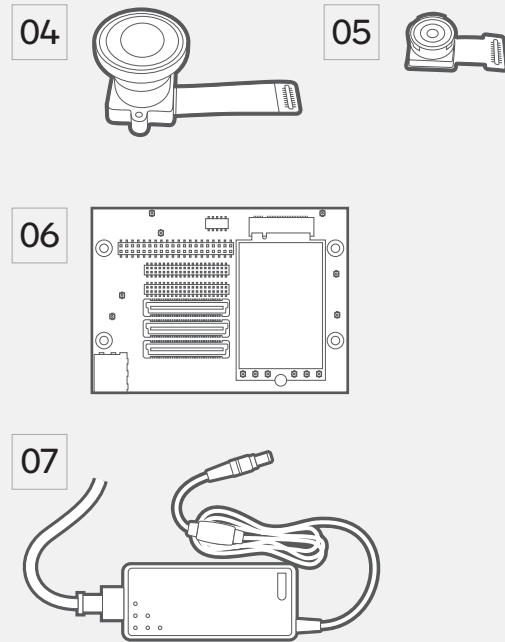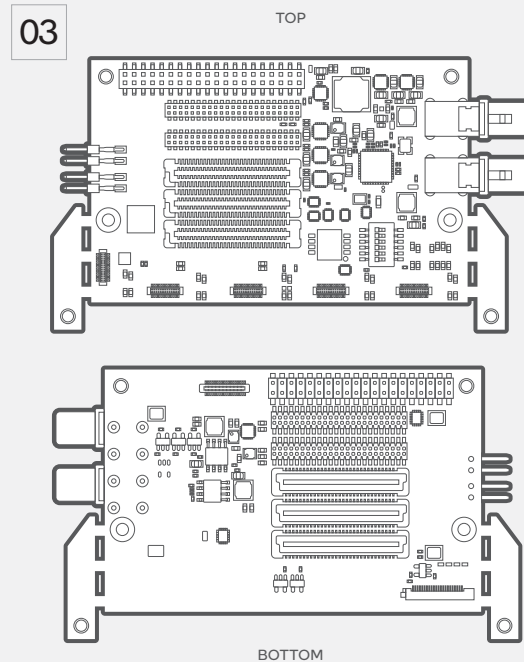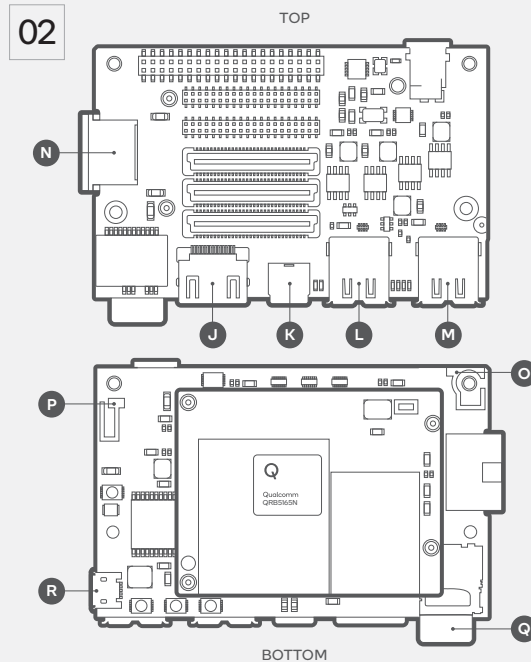H: Power supply input (12V)
I: AIC100 module

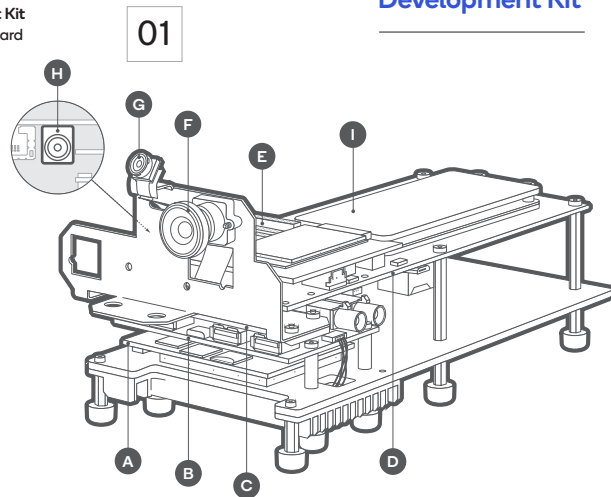**02 Qualcomm Robotics RB6 Mainboard**
J: HDMI type A
K: USB type C
L: USB type A (host mode)
M: USB type A (host mode)
N: RJ45 Ethernet connector
O: 2.4/5GHz Wi-Fi/BT Antenna 0
P: 2.4/5GHz Wi-Fi/BT Antenna 1
Q: MicroSD card
R: Micro USB debug connector

03 Vision Mezzanine board

04 IMX577 main camera

05 OV9282 tracking camera

06 5G mezzanine (optional accessory)

07 Power supply (12V)

01

02 TOP

BOTTOM

Qualcomm
QRB5165N
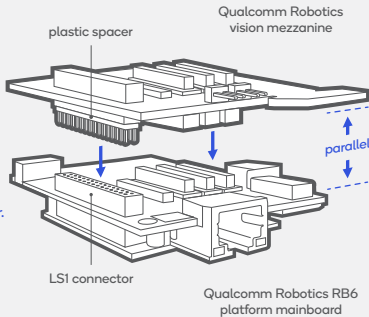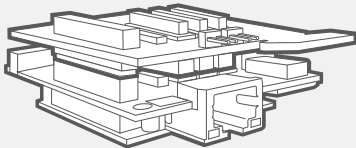
03 TOP

BOTTOM

04

05

06

07

Important!

To CONNECT mezzanine board to Qualcomm Robotics RB6 carrier board:

Ensure plastic spacer is present on LS1 connector.

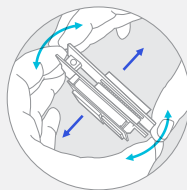*Ensure all connectors are properly aligned and boards are parallel with each other.*

plastic spacer

Qualcomm Robotics vision mezzanine

parallel

LS1 connector

Qualcomm Robotics RB6 platform mainboard

Press down firmly to squeeze boards together (avoid pressing in center of SOM board).

To REMOVE mezzanine board to Qualcomm Robotics RB6 carrier board:
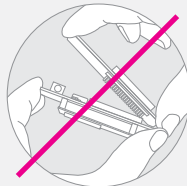
Grasp both boards firmly and wiggle up and down to gradually loosen the connectors (note boards are very tight).

Pull boards straight apart.

Do not pry boards apart.

This will result in damage to pins.

Downloading and installing Qualcomm Robotics RB6 Development Kit Tools and Resources

Product info

For resources to help you kickstart your robotics development, please visit:
https://developer.qualcomm.com/qualcomm-robotics-rb6-kit

Community forums

https://developer.qualcomm.com/forums/qdn-forums/hardware/robotics-rb6-dev-kit

Additional resources:

Robotics RB6 Development Kit
Quick Start Guide
Hardware Reference Guide
Software Reference Manual

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