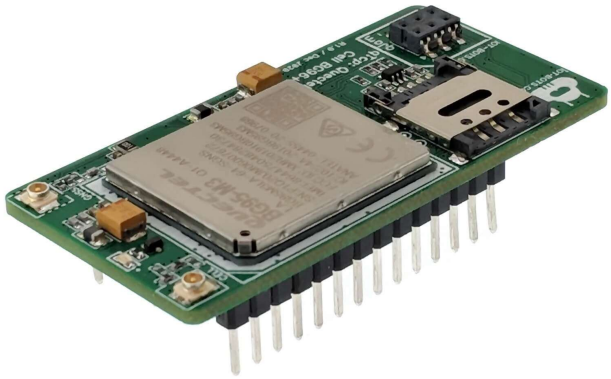


qTop Cell LTE GNSS BG95/BG96 AFC/AMC shield

Data Brief

Abstract

Data Brief gives information about the qTop Cell LTE GNSS BG95/BG96 AFC/AMC shield.
Features and device description.

IBT-QTC-AXC-BG9X-DB

www.iot-bots.com

Revision History

№№	Version	Date	Author	Description
1	1.0	03.01.2021	Iotbotscom	Initial
2				
3				

Overview

qTop BG95/BG96 (BG9x) LTE GNSS AFC/AMC Shields are the easiest way to bring the cellular wireless and GNSS location functionality to your Adafruit Feather Compatible or Arduino MKR Compatible board DIY IOT project.

BG95/BG96 Quectel LTE and GNSS modules based qTop shields to be used together with popular Adafruit Feather Compatible and Arduino MKR Compatible IOT boards to build various DIY IOT projects.

Features

- LTE Cellular and GNSS Navigation all-in-one: Multi-mode LPWA and GNSS Quectel BG95 module based shield;
- Reliable and Optimized Power Management: Integrated High Efficiency Single Inductor Buck-Boost TPS63020 Converter;
- Flexible and compatible interface: All modem UARTs pins are accessible through PCB jumpers and 3,3V translators;
- Flexible antenna options: Two built-in u.FL connectors for Cellular and GNSS antennas to be connected;
- Shield identification feature: Device ID EEPROM chip integrated allows to keep Shield info, version and unique ID of the product;
- Sensor Add-On capability: Built in qJam connector gives opportunity to bring to the system any qJam family device;
- Popular IOT board compatibility: pin-to-pin compatible with popular Arduino MKR / Adafruit Feather IOT boards;
- Shock & Vibration resistant SIM Card Holder: World's smallest hinged nano-SIM Card holder integrated.

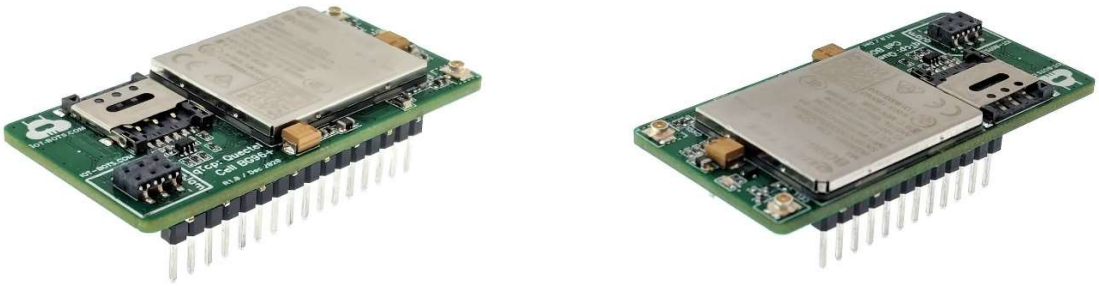
Description

qTop BG9x LTE/GNSS AXC Shields (Products) are Adafruit Feather Compatible / Arduino MKR Compatible PCB shields to be used for DIY IOT project together with

Adafruit Feather Compatible or Arduino MKR Compatible IOT board to get cellular connectivity and GNSS location info for the system to be developed.

Each BG9x Product has two modifications :

- AFC : Adafruit Feather Compatible, to be used with Adafruit Feather Compatible boards;

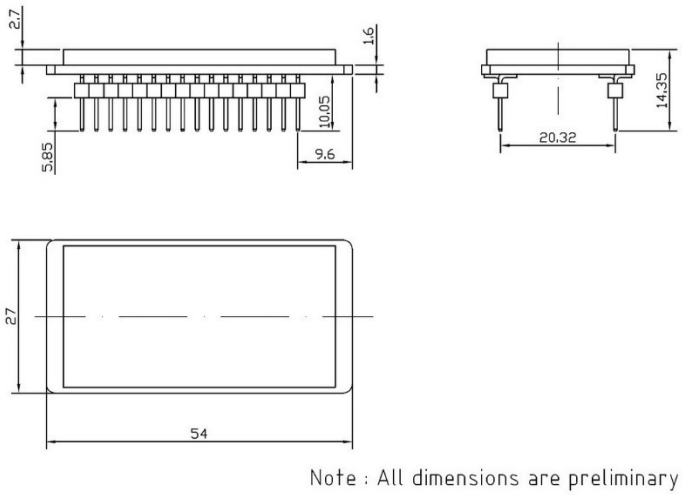


Pic.1. qTop BG96 LTE/GNSS AFC Shield (Adafruit Feather Compatible)

- AMC : Arduino MKR Compatible, to be used with Arduino MKR Compatible boards.

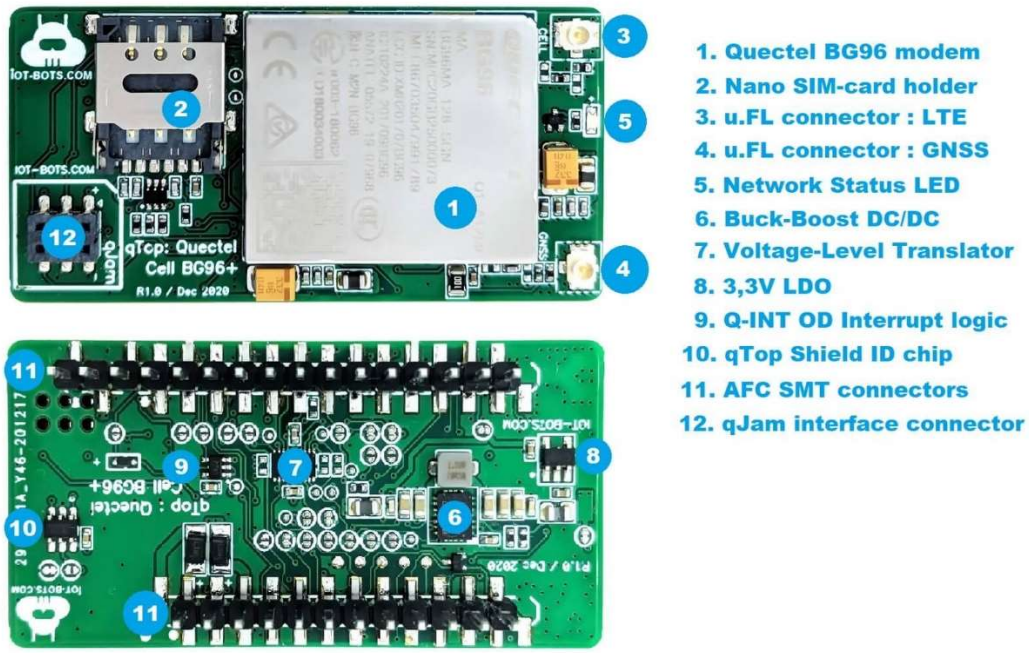
Pic.2. qTop BG95 LTE/GNSS AMC Shield (Arduino MKR Compatible)

High quality four layers FR-4 PCB is used to carry all product components placed at both PCB sides. The product dimensions are shown at picture below.



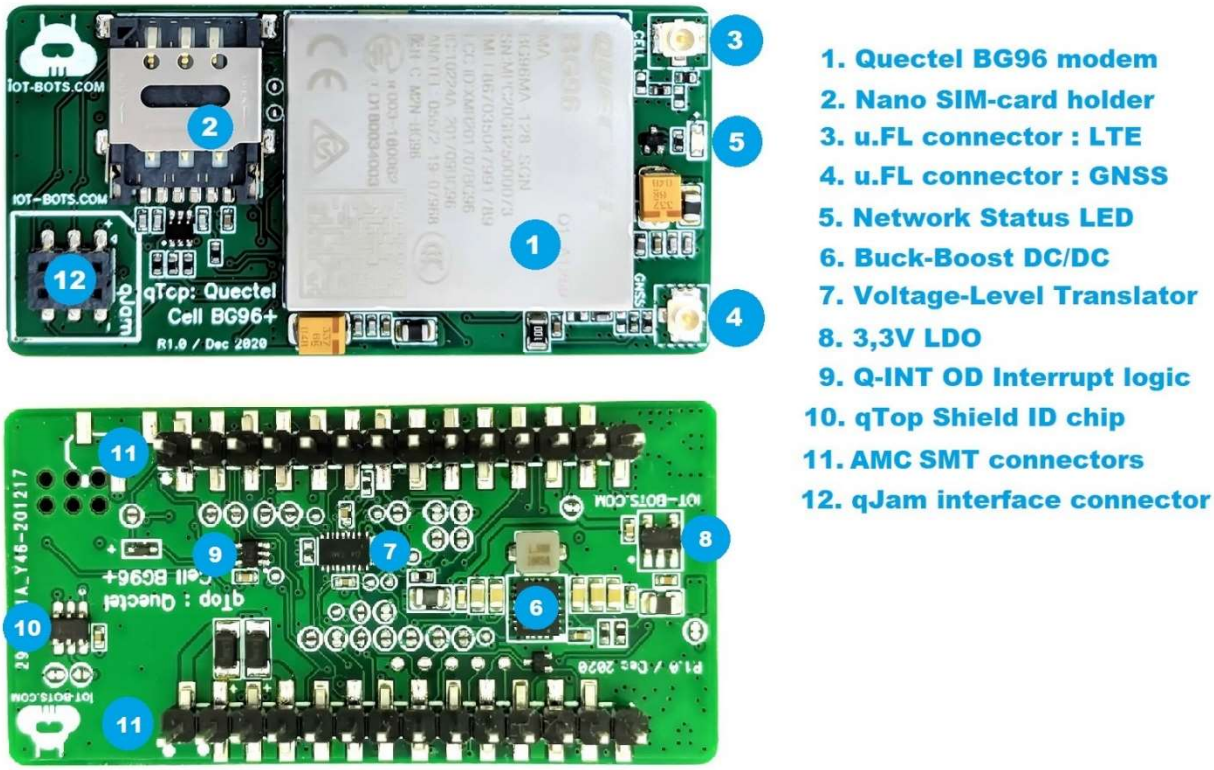
Pic.3. qTop Modem Shield dimensions (mm)

The main qTop BG9x LTE/GNSS AFC Shield components highlighted at picture below.



Pic.4. qTop BG9x LTE/GNSS AFC Shield components

The main qTop BG9x LTE/GNSS AMC Shield components highlighted at picture below.



Pic.5. qTop BG9x LTE/GNSS AMC Shield components

Abbreviations

№№	Abbreviation	Explanation
1	AFC	Adafruit Feather Compatible
2	AMC	Arduino MKR Compatible

Trademark notice

All referenced brands, product names, service names, and trademarks are the property of their respective owners.

Ordering info

№№	Item	SKU
1	qTop BG96 LTE/GNSS AFC Shield	IBT-QTC-AFC-BG96
2	qTop BG96 LTE/GNSS AMC Shield	IBT-QTC-AMC-BG96
3	qTop BG95 LTE/GNSS AFC Shield	IBT-QTC-AFC-BG95
4	qTop BG95 LTE/GNSS AMC Shield	IBT-QTC-AMC-BG95