

## QBOX840-5S7-GEVK User's Manual

### Overview

QBOX840-5S7-GEVK is a Dual RGMII repeater with Quantenna® QT3840BD chipset. This repeater can provide up to 1.7 Gbps PHY/Data Link Speed in 80 MHz mode. It consists of one 11ac digital baseband chip and one 4 chain 5 GHz RFIC.

### Description

QBOX840-5S7-GEVK supports the 802.11ac/n/a standards and 4 streams in 4x4 MU-MIMO configuration. QBOX840-5S7-GEVK has dual RGMII ports, which support 1 Gbps/100 Mbps/10 Mbps separately.

### I/O Interfaces and Features

- Explicit and Implicit Digital Transmit Beamforming
- Advanced MIMO Features STBC and Channel State Aware Link Management for Sustained Link Robustness
- Two ARC-based Network Processors with Hardware Assist to Manage Multiple Simultaneous
- 802.11a/n/ac Connections
- DSP Engine to Hardware Accelerate Aggregation, De-aggregation, and Packet Re-ordering
- MU-MIMO Support
- SuperDFS Support
- Expanded Support for 128 Users
- LDPC Support
- Standards: 802.11ac/n/a
  - 802.11i (WEP, WPA/WPA2, RADIUS)
  - 802.11d
  - 802.11e (WMM, WMM-PS)
  - 802.11w
  - 802.11h
  - 802.11k
- Operating Frequencies: 4.9–5.85 GHz
- Maximum Data Rate (per Stream) – Rates are for 256 QAM Operation
  - ♦ 80 MHz: 1.7 Gbps (433.33 Mbps)
  - ♦ 40 MHz: 800 Mbps (200 Mbps)
  - ♦ 20 MHz: 346.8 Mbps (86.7 Mbps)



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## EVAL BOARD USER'S MANUAL



**Figure 1. QBOX840-5S7-GEVK Photo**



Figure 2. QBOX840-5S7-GEVK Side Photo

## APPLICATIONS INFORMATION

### Power Configuration

QBOX840-5S7-GEVK use 5 V DC power supply. When the board is powered on, the power LED will be steady green.

### Reset to Default Button

Reserved (Reset to default Button).

### WPS Button

By pressing WPS button, associate with other Wi-Fi® devices.

### AP/STA Switch

Switch between Access Point and Station mode.

### LAN port 0/1

LAN supports 1 Gbps/100 Mbps/10 Mbps UTP speed.

### Mini-B USB Serial Port

The Serial port is mainly used for debug purpose.

Table 1. SERIAL PORT SETTING

Baud rate	115200
Data	8 bit
Parity	None
Stop	1 bit
Flow control	None

## BOARD POWER UP

### LED Indication When QBOX840-5S7-GEVK Powers Up



Figure 3. Console Display When QBOX840-5S7-GEVK Successfully Boots Up

When QBOX840-5S7-GEVK successfully boots up, it will show “quantenna #”.

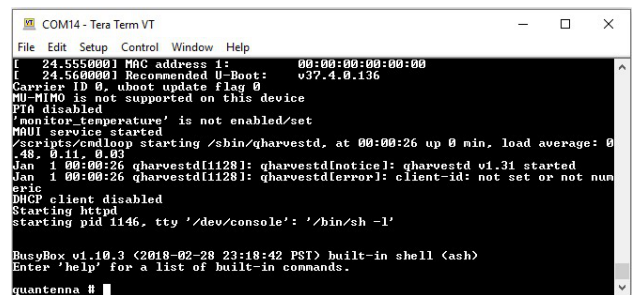


Figure 4. QBOX840-5S7-GEVK Successfully Boots Up

## Telnet

QBOX840-5S7-GEVK could also be accessed through telnet. Use board IP address and the login username is “root”.

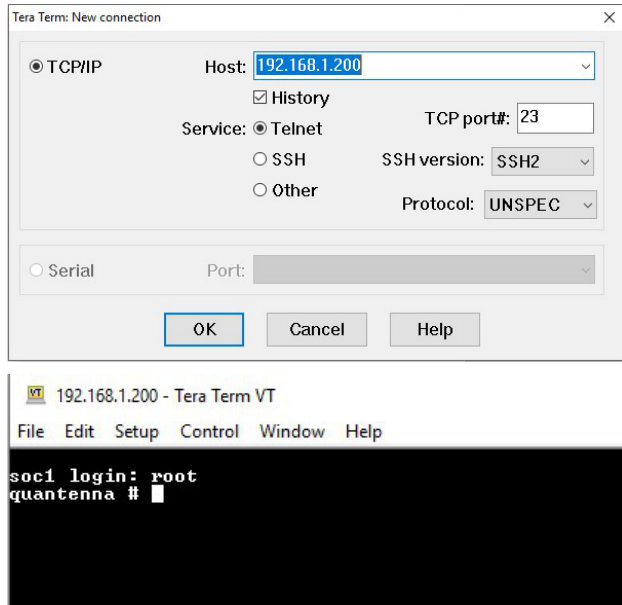


Figure 5. Access Through Telnet

## Web GUI

QBOX840-5S7-GEVK default IP address is 192.168.1.200.

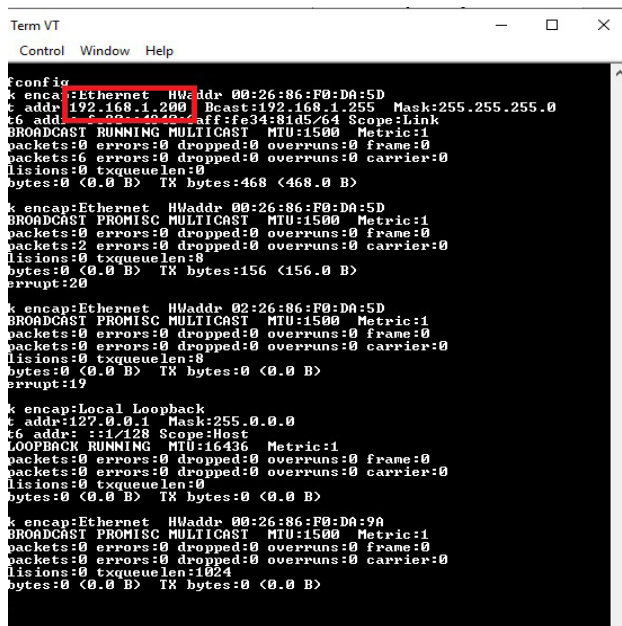


Figure 6. Default IP Address

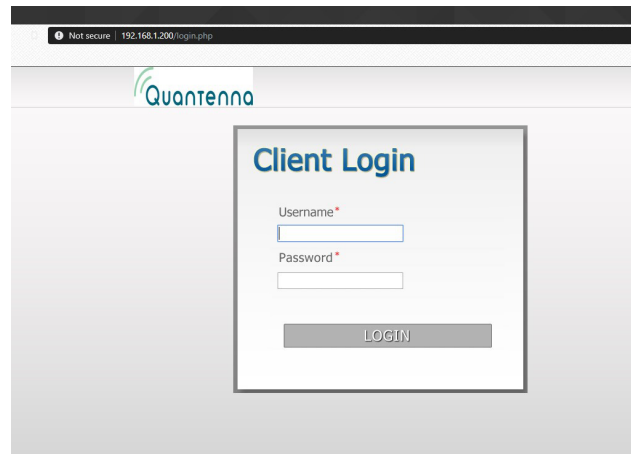


Figure 7. Web GUI Username and Password

Web GUI      username: super  
password: super

## Status

Status shows QBOX840-5S7-GEVK basic information and current mode.

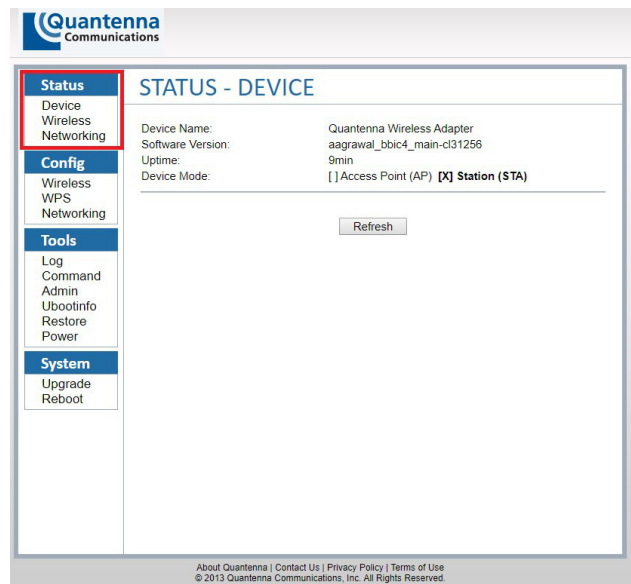


Figure 8. Status – Device

## Config

Network setting and device association could be configured at Config part, more detailed settings is showed in *Advanced*.

**Quantenna Communications**

**CONFIG - WIRELESS**

Basic Advanced

Device Mode: Station

ESSID: Scan AP

Channel: Scanning:40

PMF: Disabled

Encryption: NONE-OPEN

Save Cancel

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Figure 9. Config – Wireless

## Tools

Tools are used for QBOX840–5S7–GEVK debug purpose.

**Quantenna Communications**

**TOOLS - COMMAND**

call\_qcsapi Send

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Figure 10. Tools – Command

## System

System is used for QBOX840–5S7–GEVK firmware update and maintenance.

**Quantenna Communications**

**SYSTEM - UPGRADE**

Choose a file: Choose File No file chosen

Upgrade

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Figure 11. System – Upgrade

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