

## PROTOTYPE C (PI SERVER)

# FEATURES

**A. INPUT VOLTAGE : 5 VDC 2AMP**

**B. NETWORK FUNCTION:**

- MESH NODE
- ACCESS POINT
- WEB SERVER

**C. WIRELESS MESH CAPABLE**

**D. BACK UP BATTERY CAPACITY: 5 TO 9 HRS**


**E. DUAL POWER SOURCE FEATURE.**

- CAN BE POWERED DIRECTLY FROM THE USB PORT.
- CAN RUN ON BACK UP BATTERY FOR 5 TO 9 HOURS DEPENDING ON THE LOAD.

**F WITH WIFI AND BLUETOOTH**

**G. INTERNET OF THINGS READY**



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# PHYSICAL DIMENSIONS:



TOP



(REFERENCE ONLY)



FRONT



SIDE



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## TECHNICAL SPECIFICATIONS:

• INPUT POWER	5 VDC, 2 A
• CURRENT CONSUMPTION	400 mADC
• TRANSMISSION SPEED	300Mbps
• FREQUENCY	2.4 GHZ
• PROTOCOL	802.11 b/g/n
• MAX. TX POWER	20 dBm



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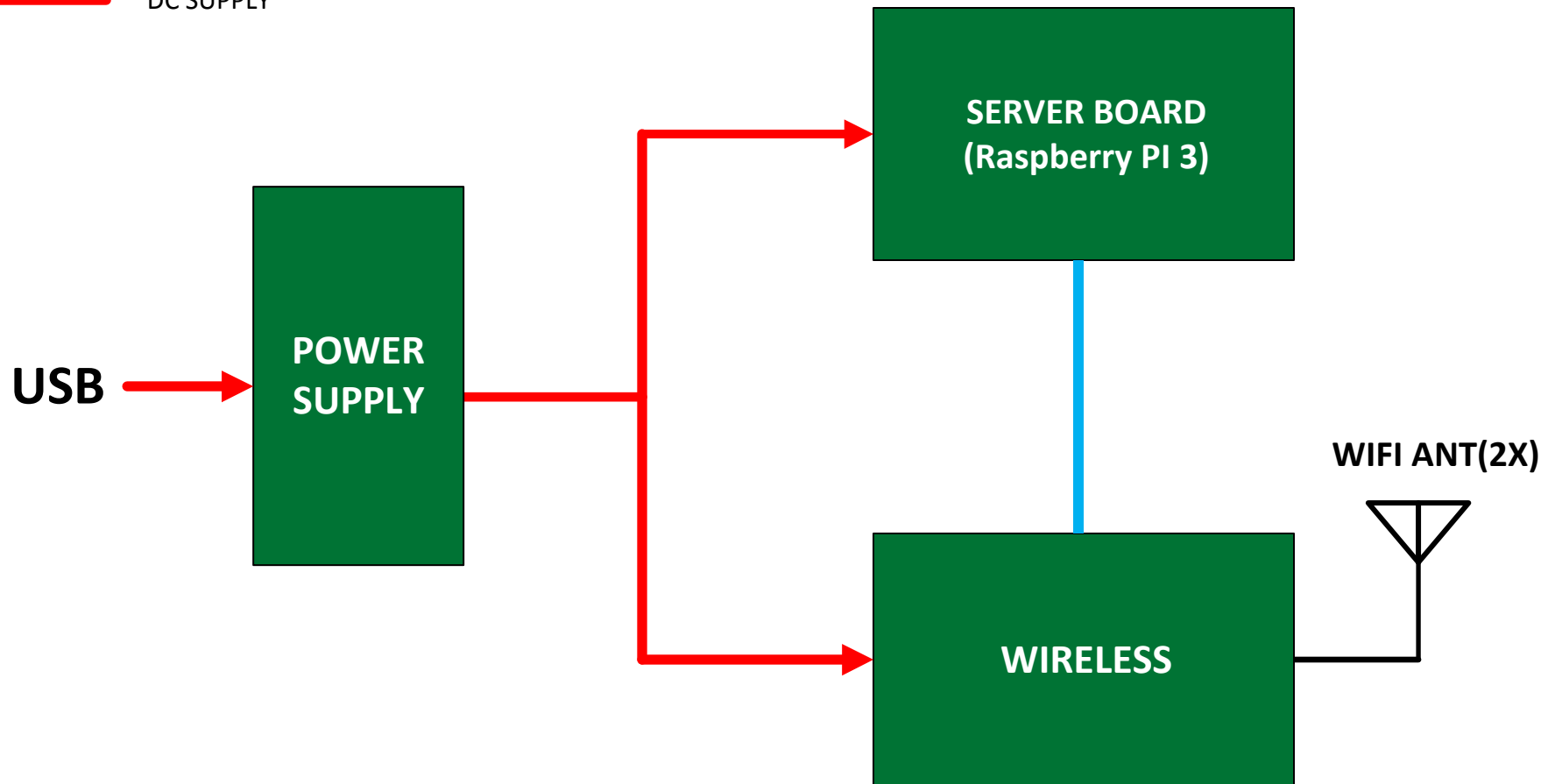
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## LEGEND:



## BLOCK DIAGRAM



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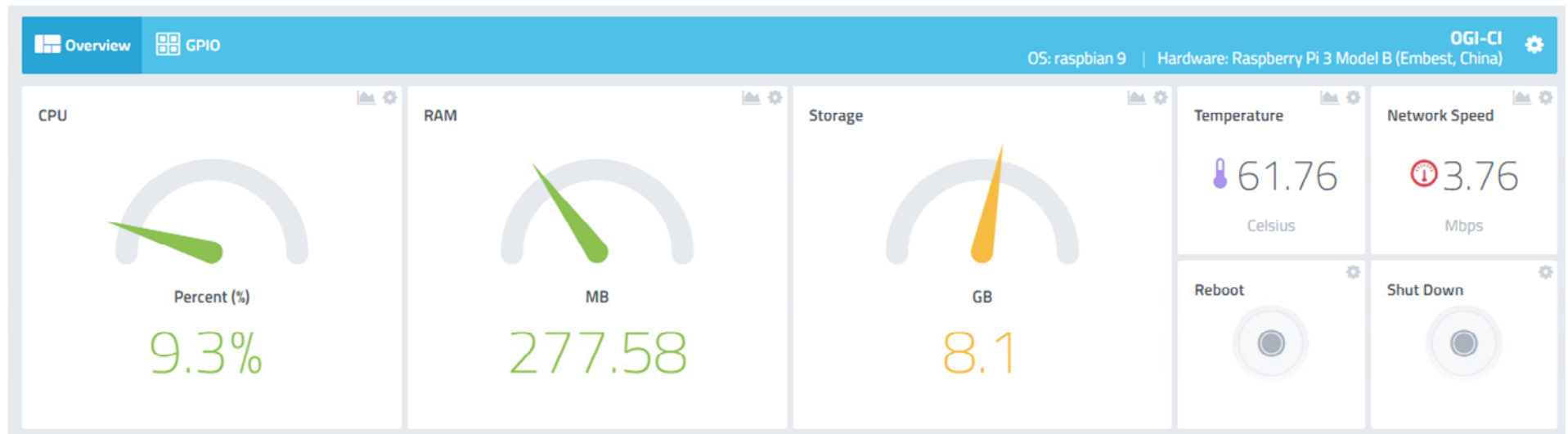
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## PI SERVER PARAMETERS

INSTALLED OS : RASPBIAN 9  
 SERVER : NGINX/1.10.3  
 DATABASE : mySQL  
 PHP VERSION : 7.02

## The Raspberry Pi 3 Server's IoT Dashboard Snapshot



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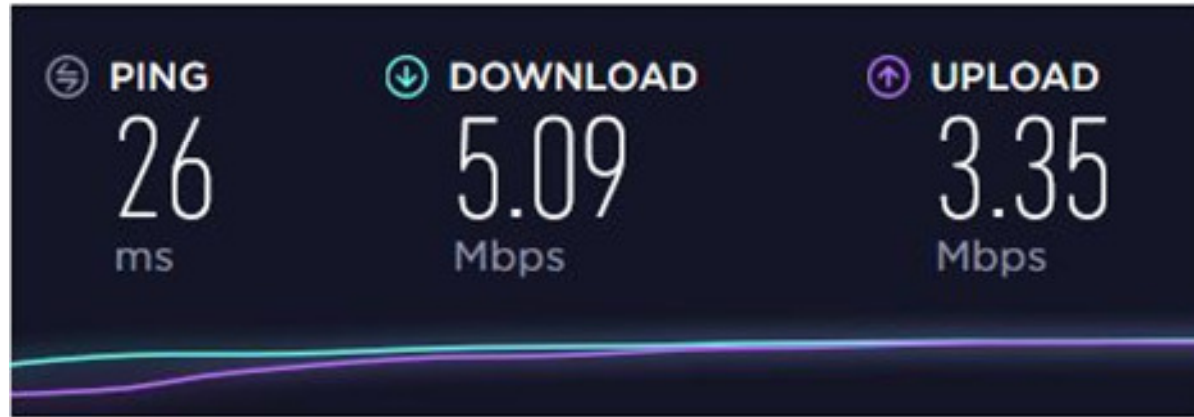
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# WIRELESS SPEED



# TOTAL CURRENT DRAW



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## BILL OF MATERIALS

ITEM	DESCRIPTION	PART NUMBER	QUANTITY	UNIT	NOTES
1	WIRELESS ROUTER	AR300M	1	EA	NA
2	SERVER BOARD	RASPBERRY PI III	1	EA	NA
3	LITHIUM ION BATTERY CHARGER	KY68C	1	EA	NA
4	ENCLOSURE	231-BK	1	EA	NA
5	ANTENNA	P/O WDR3600	2	EA	NA
6	EPOXY	DP100	AR	OZ	NA
7	STANDOFF	P/O eboot KIT	4	EA	NA
8	SCREWS	P/O eboot KIT (m2.5)	6	EA	NA
9	0.5 FT ETHERNET CABLE	INSTALLER PARTS KIT	1	EA	NA
10	MICRO USB	P/O uXCELL KIT	2	EA	NA



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