Technical Data for USB Type LED Tower Light
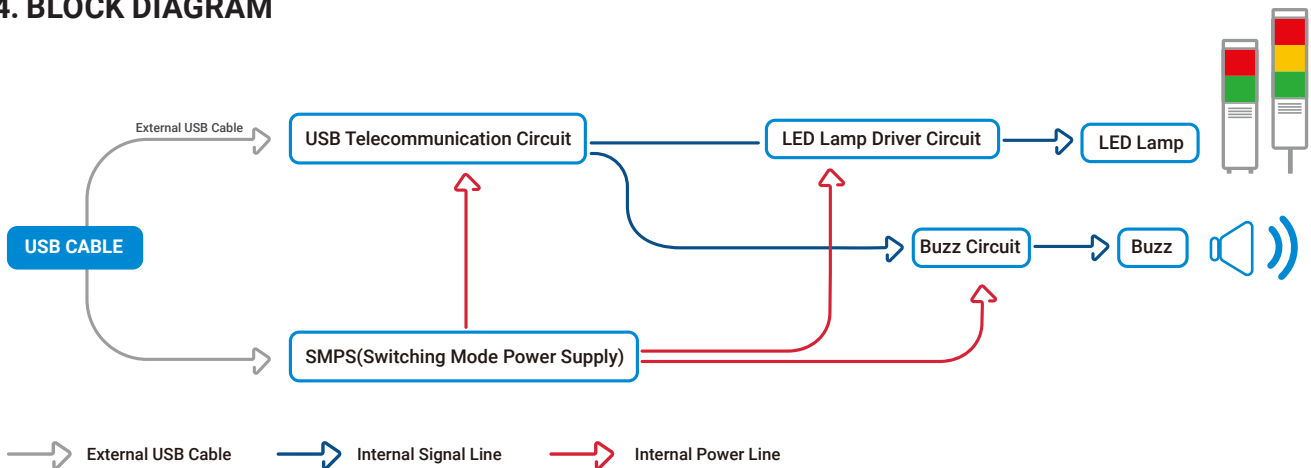
3. Communication data format of the USB product

Developers can use the programming format below to control the LED USB Tower light via PC.
For detailed programing information, please see the reference code that is provided separately.

PC to USB TOWER LAMP

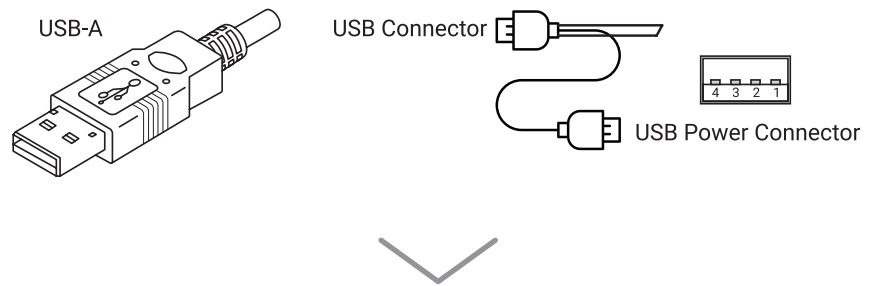| No.	TYPE	ABB	DESCRIPT	Size(Byte)
1	DEVICE INFORMATION	VID	VENDOR ID : 0x04D8(Provided by IC manufacturer)	2
2		PID	PRODUCT ID: 0xE73C(QLIGHT ID)	2
3		INDEX	1. Maximum of 4 USB tower lights can be installed per PC. 2. Field value helps to distinguish each USB tower light. 3. Reference - USB0 : 0×4970/ USB1 : 0×4971/ USB2 : 0×4972/ usb3 : 0×4973 4. Assign 0-3 for convenient use in IBM PC environment.	2
1	DATA	Write	1. Send 'W=0x57' which means transferring the data from PC to USB.	1
2		Sound Group	1. Field for sound pattern designation. 0 : WS/ 1 : WP/ 2 : WM/ 3 : WA/ 4 : WB/ 5 : BZ/ 6 : WM(8)/ 7 : WA(8) 2. Total 8 groups are provided and each group has channel 1 to 5.	1
3		R LAMP	1. Field for controlling Red lamp. 2. Reference - 0 : LAMP OFF/ 1 : LAMP BLINK(ON/OFF)/ 2 : LAMP ON/ Else : Don't care	1
4		A LAMP	1. Field for controlling Amber lamp. 2. Reference - 0 : LAMP OFF/ 1 : LAMP BLINK(ON/OFF)/ 2 : LAMP ON/ Else : Don't care	1
5		G LAMP	1. Field for controlling Green lamp. 2. Reference - 0 : LAMP OFF/ 1 : LAMP BLINK(ON/OFF)/ 2 : LAMP ON/ Else : Don't care	1
6		B LAMP	1. Field for controlling Blue lamp. 2. Reference - 0 : LAMP OFF/ 1 : LAMP BLINK(ON/OFF)/ 2 : LAMP ON/ Else : Don't care	1
7		W LAMP	1. Field for controlling White lamp. 2. Reference - 0 : LAMP OFF/ 1 : LAMP BLINK(ON/OFF)/ 2 : LAMP ON/ Else : Don't care	1

4. BLOCK DIAGRAM

External USB Cable

USB CABLE

USB Telecommunication Circuit

LED Lamp Driver Circuit

LED Lamp

Buzz Circuit

Buzz

SMPS(Switching Mode Power Supply)

→ External USB Cable   → Internal Signal Line   → Internal Power Line

5. SPECIFICATION

Category	Specification	Category	Specification
Tower light	·Layers(Layer): 1-5 ·Voltage(Voltage): DC12V ·Current(Current): 0.300A ·Color(Color): ● Red ● Amber ● Green ● Blue ○ White	Cable	1. VCC (Red) 2. D- (White) 3. D+ (Green) 4. GND (Black) 5. Shield
Speaker	·Speaker Rated(Rated): 1W ·Volume(Volume): Max. 85dB at 1m	Buzzer	·Voltage(Voltage): DC12V ·Current(Current): 20mA ·Volume(Volume): Max. 90dB at 1m
USB standard	·Available on hosts that support USB 1.1 or higher ·5V/500mA rated (uses 2 USB port)	Input voltage	·USB DC 5V×2PORT (Built-in 5V To 12V converter)

6. USB CABLE

1. The power consumption of a USB Tower light(3 layers type) is only about 2.5W.
2. The USB specification is 5VDC/(300mA/500mA) per PC port which equals approximately 1.5W. Thus, using two ports will supply the proper power to the product.
3. It is possible to use multiple colors at the same time by using the USB power supply, but using one lamp and one alarm sound at a time is recommended.
4. There are two types of USB connections as shown in the image below; a standard USB connector and a USB power connector with a power line connected in parallel.

USB-A   USB Connector

4 3 2 1

USB Power Connector

Pin	Name	WIRE Color	Description
1	VCC	RED	+5V
2	D-	WHITE	Data-
3	D+	GREEN	Data+
4	GND	BLACK	Ground