



深圳市芯联锐创科技有限公司
TRUSTED LINK TECHNOLOGY LIMITED

TRUSTED LINK
CSR BLE Mesh 技术
智能手机和APPs
为智能照明市场注入新的活力

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1. CSR BLE Mesh

2. Mesh Zigbee

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4. Mesh—Wifi

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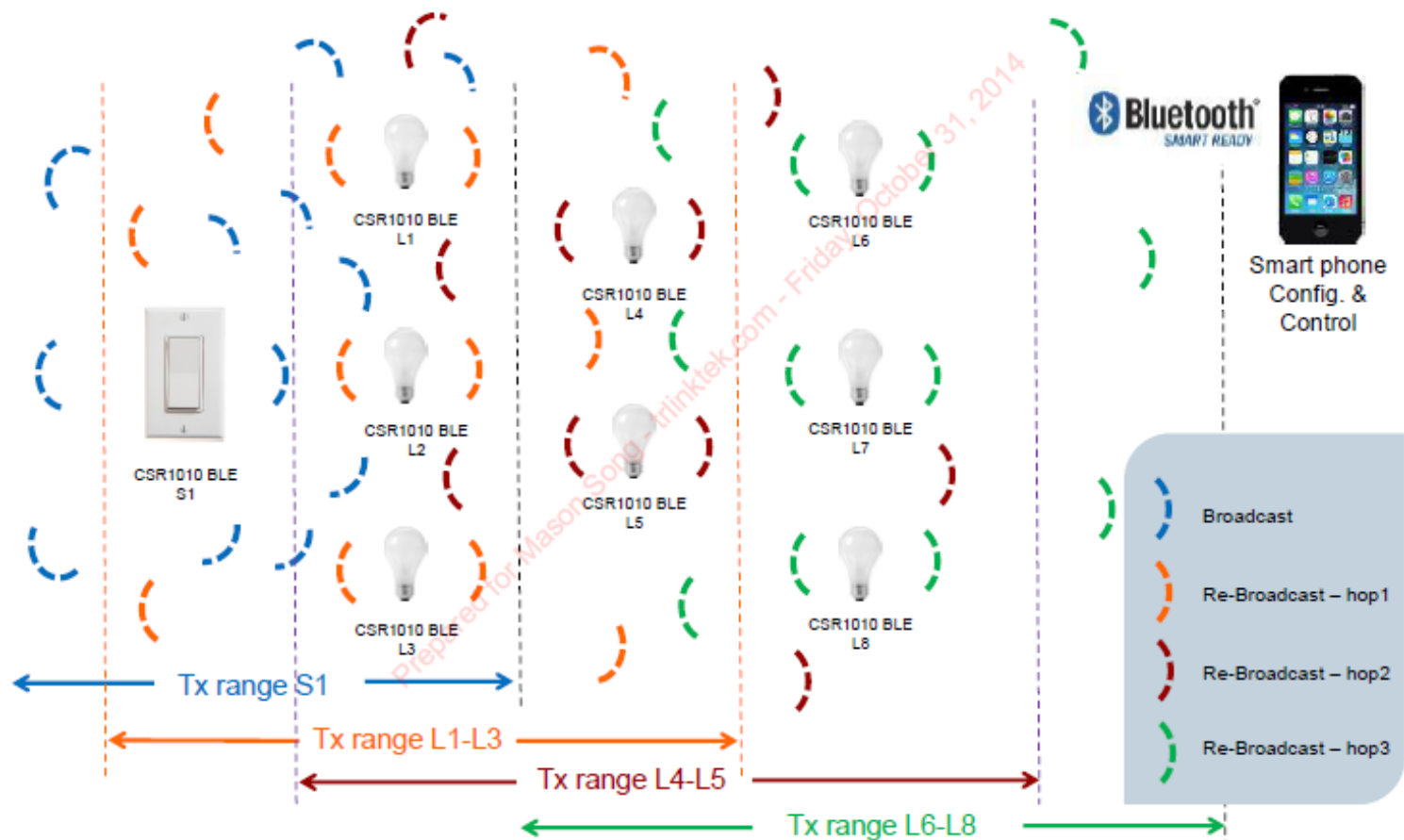
6.

7. BLE

8. TRLINK CSR Mesh

1. 基于CSR BLE芯片的 Mesh 技术将蓝牙带入智能家居市场

a. CSR Mesh:



1. 基于CSR BLE芯片的 Mesh 技术将蓝牙带入智能家居市场

CSR Mesh

:

A

-	1-	2-	3-	4-	5-	6-	7-	8-	9	350
29	—						—			

B

BLE (65000)

:6

280 LED --- / /

2. Mesh技术与主流无线控制技术的简单对比

数据通道类型	BLE模组	Wifi模组	带ARM资源的独立Wifi模组	Zigbee模组
BOM成本	低于 3 usd	1.5 usd	6 usd	高于4.5 usd
中央控制器/网关	无	Wifi路由器	Wifi路由器	XX usd
备注	独立工作	要求与ARM资源配合使用 ARM资源运行Linux内核	独立工作	?

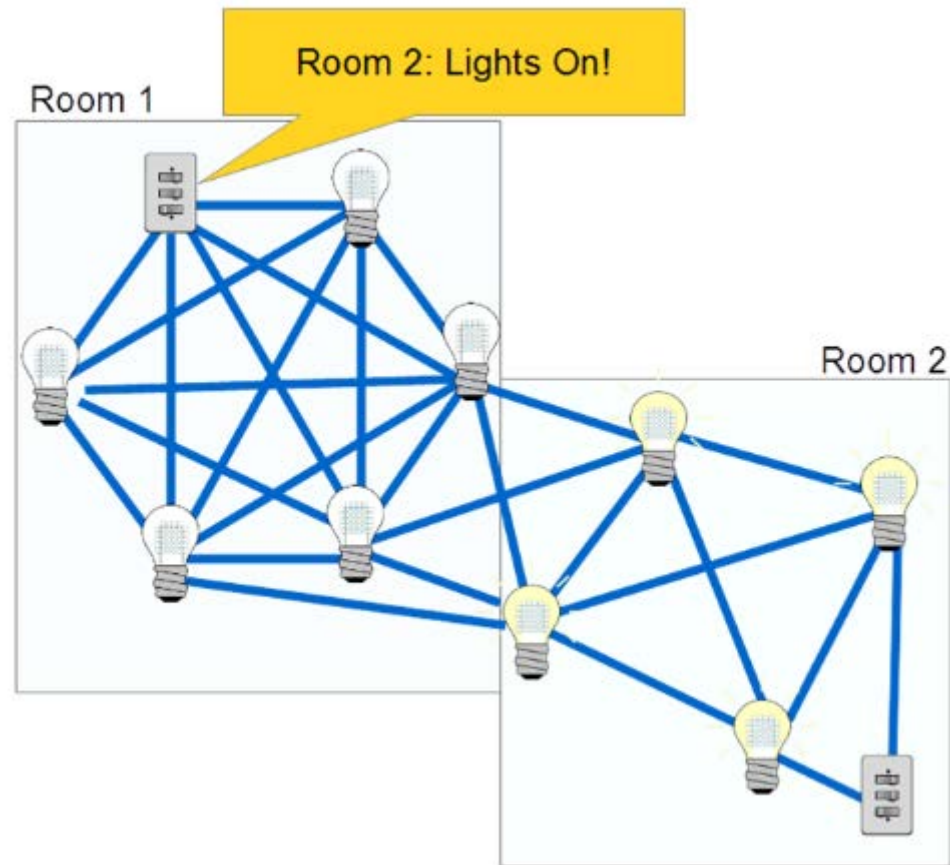
2. Mesh技术与Zigbee技术的性能功能参数对比

LE Mesh	Zigbee	
Advertising packets "broadcast" messages to all nodes in range	Router and coordinators create path through network	
Relay devices receive messages and re-broadcast, increasing network range	Designated devices: router, coordinator, end device (ZR,ZC,ZED) If ZC/ZR is blocked, path is lost	
Can forward message	All devices can act as relay. More chance of message getting through	Only ZR/ZC can forward
Large latency to change network configuration events	Uses 3 radio channels for robustness and coexistence. FHSS	Single channel. High chance of collision
Smartphones have higher memory overhead "on" more	All BLE devices are low cost, low power and low memory overhead	ZC & ZR device are more expensive and need to be 'on'
Configuration delays (seconds) possible if radio interference is strong, need to manually switch on	Fast propagation of messages through network, even with strong WiFi interference	Lengthy propagation of messages through network if WiFi or other radio networks are present, creating slow change
Can be controlled directly from a smartphone, tablet, Mac or PC	BLE Natively supported by ALL Smartphone OS'es – iOS, OS X, Android, BB10, Win8. Advertising features not yet fully supported	Cannot be controlled directly from a Smartphone, tablet, Mac or PC

3. 具体项目简介

a. Mesh

DIY

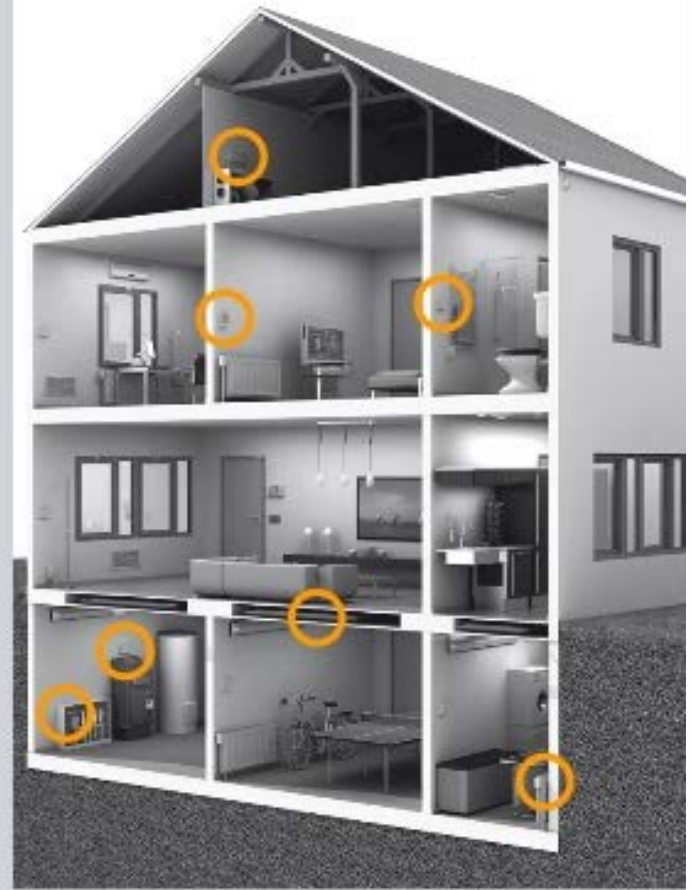


3.

b. Mesh

Heating, ventilation and air conditioning (HVAC)

- 1 Individual room temperature control
- 2 Control of floor heating and radiators
- 3 Request for heat/cooling energy to heat/cooling energy sources
- 4 Controlled airing of apartments
- 5 Domestic hot water heating



3.

C. Mesh .

RSSI , BLE/Mesh ,

(1)

, APPs, , BLE

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5. 智能手机上的APPs要如何来写

- a. APPs,
- b. .
- c. APPs , APPs ,
- d. : CSR BLE Mesh APPs ?

<http://note.youdao.com/share/?id=94b77744ba544347062fbc1dbb815539&type=note>

7. BLE

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a. , DIY

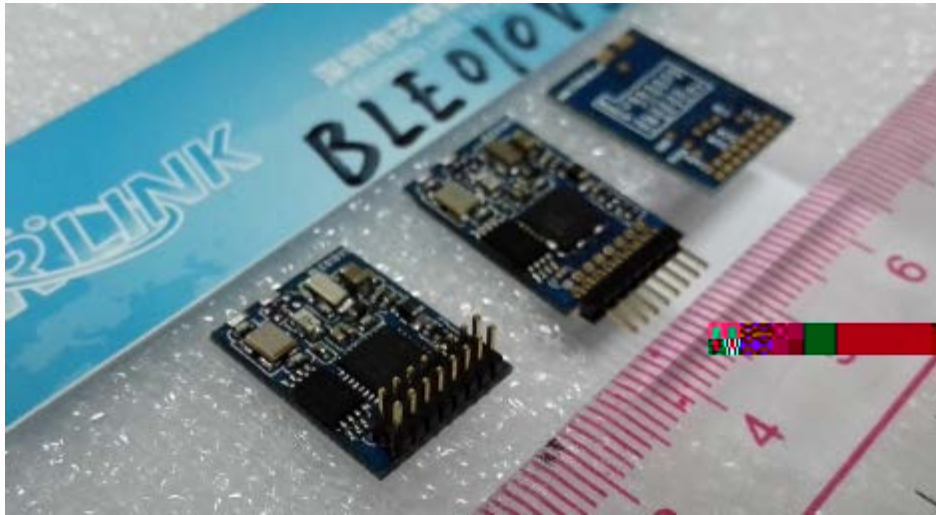
b. ,

c. , ,

d. : BLE

8. Trlink's BLE Mesh Modules List

BLE010V5 (based on CSR1010)



MP in Dec, 2014

很多mesh 的應用場合是強/弱電混合(220-110V 與 3.3V混合), 貼片使用時, 強弱電的隔離設計複雜, 難度高. 處理不好的話, 強電部分的干擾容易影響弱電部分的電路的穩定性. 插針式的使用方式, 可以大幅度降低強/弱電隔離的設計難度. 插針式的使用方式, 相對貼片式使用方式, 對組裝線要求低很多.



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THANK YOU

**By TRLINK
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