

Interior ambient light

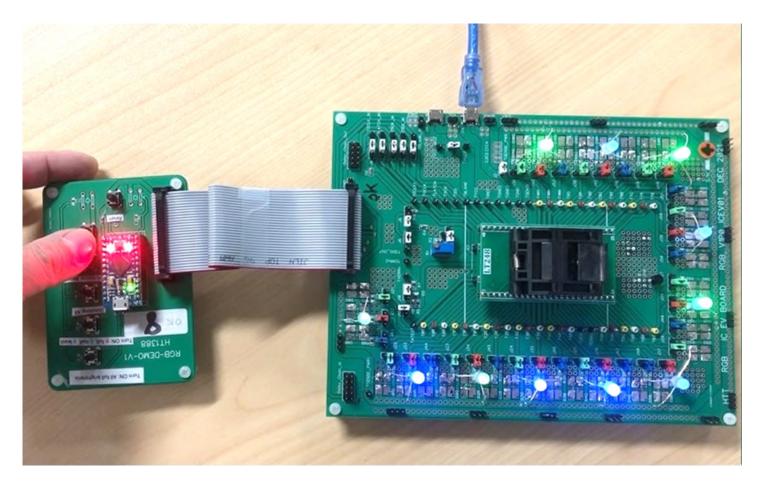
HTT IC used: HT1388 and HT6329

**Internal Use Only** 

### To content

## Interior ambient light application





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## 芯高科技 HIGH TECH TECHNOLOGY LIMITED

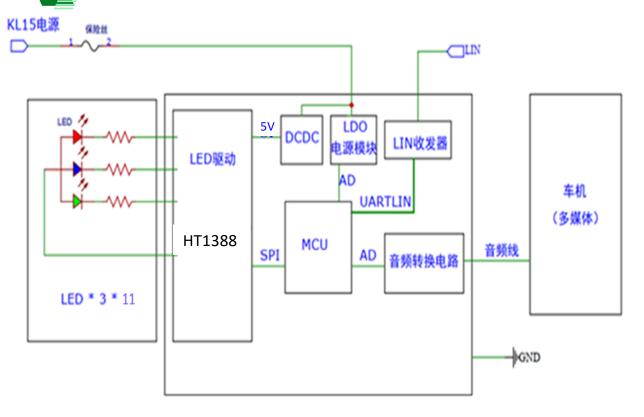
## Interior ambient lighting demo specifications

	Power Management	Lighting Control
HTT IC part	HT6329	HT1388
Input voltage	DC 12V - 24V DC 3V - 5V	
Output	Dual channel 33 channels	
Output voltage	5V - 12V 5V	
Output current	3A per channel	The maximum output current per channel is 30-40mA. For higher output currents, a maximum of 60mA can be achieved via combining 2 adjacent channels.
Demo board	HT6329+HT1388 basic driver module, connect to 11 RGB mixed colour LEDs.	
Hardware features	<ol> <li>One MCU can drive several HT1388, each HTT chip can drive 33 channels, and each channel can independently control LED on/off and PWM dimming.</li> <li>One HT6329 can connect up to 3 or more HT1388 demo boards to drive more LEDs.</li> </ol>	
Software features	<ol> <li>Control the brightness, color and flickering beat of the light string through the MCU firmware.</li> <li>FFT music display function.</li> <li>IoT Bluetooth remote control function.</li> <li>User programmable.</li> </ol>	

## HT1388 11-way ambient light vehicle regulation system solution







Parts	Primary	remark
MCU	Arduino	ESP32 can be used instead of incorporate Wi-Fi / BLE function.
LDO	BD450M2	
LED driver	HT1388	<ol> <li>Less change in MCU firmware.</li> <li>Existing system scenarios can be supported.</li> </ol>
DCDC	HT6329	LED driver requires 5V power supply, overall LED current is large. Considering the heating of LDO is serious, using DCDC is a better solution.
Audio conversion	MAX4466	Input from the horn wire or directly output from the vehicle
others		Resistors, capacitors, PCB boards, terminals, etc

- 1. Support 33 ambient lights, each lamp has RGB LED and current limiting protection resistor.
- 2. A 8 bit MCU is needed to provide SPI. The MCU controls dimming via LED drivers. The LED driver supplies power to the peripheral LEDs, with a maximum voltage of 5V.
- 3. If the music rhythm function is not done, the audio conversion circuit module can be canceled.
- 4. LED driver chip comes with fault detection function

#### Demo Video

Music Rhythm function <a href="https://www.youtube.com/watch?v=TViP8TzBgAo">https://www.youtube.com/watch?v=TViP8TzBgAo</a>
Wi-Fi / BLE function <a href="https://www.youtube.com/watch?v=PuMBH-1k-pU">https://www.youtube.com/watch?v=PuMBH-1k-pU</a>



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Tel: (852) 36195375 Address: Unit 713, 7/F, 12W, 12 Science Park West Avenue,

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