

## Product Highlights

### The Complete Smart Home Solution

Can be used in a variety of applications such as a ZigBee HA gateway, ZigBee Smart Energy CAD, Thread Border Router, or with Bluetooth mesh

### Multi-Protocol Wireless SoC

Silicon Lab's Wireless Gecko family of ARM Cortex-M4 core-based SoCs targets wireless applications for Internet of Things. It supports ZigBee, Thread, BLE, Bluetooth mesh, and proprietary protocols

### High Output Power for the ZigBee protocol

Offers up to +18 dBm of transmission power for connecting to ZigBee devices<sup>1</sup>



## DSH-G300-TBR

# Thread Border Router

## Features

### Multi-Protocol Support

- ZigBee
- Thread
- Bluetooth mesh and Bluetooth 5
- Proprietary

### Connectivity

- 802.11n/g/b 2.4 GHz Wireless support (1T1R)
- USB 2.0 for future dongle support

### Small Casing

- Compact size
- Wall-mountable

The D-Link Thread Border Router (DSH-G300-TBR) is a home automation gateway used to control a variety of ZigBee, Thread, and Bluetooth home devices for automating your home. Along with the advent of Bluetooth mesh, it offers control of automation such as intelligent lighting, indoor positioning, and asset tracking.

## Automate Your Home

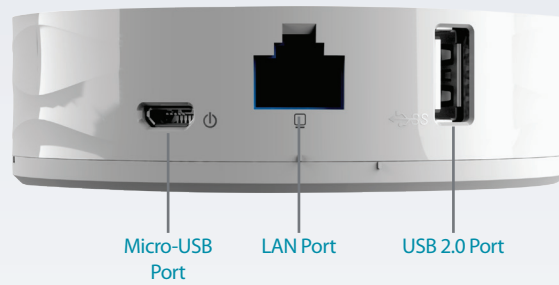
Acting as a central hub for all your home automation devices, the DSH-G300-TBR supports multiple protocols such as ZigBee, Thread, and Bluetooth to allow you to mix and match sensors and devices for automating your home. The DSH-G300-TBR uses an embedded Linux OS on the main CPU (MTK). The Silicon Labs MGM12P ZigBee module can be either pre-loaded with the ZigBee stack and ZigBee API/AT command sets (the NCP application) that enable the MGM12P module to communicate with the Linux OS and Software Application compiled image, or it can be pre-loaded with Thread. This makes it a versatile module that is ideal for use with the Thread protocol.

## Bluetooth<sup>®</sup> 5 and Bluetooth Mesh

The DSH-G300-TBR also incorporates the latest Bluetooth Low Energy (BLE), Bluetooth 5, and Bluetooth Mesh technology. It includes the Bluetooth 5 2Mbps PHY for better data transfer performance. Bluetooth mesh enables reliable and scalable mesh networks for the wireless sensor network (WSN) market, perfect for smart home products. Support for broadcasting enables beacons, location awareness, and other services for a more seamless Internet of Things experience.

# DSH-G300-TBR Thread Border Router

## Back View



## Technical Specifications

### General

CPU & Memory	<ul style="list-style-type: none"><li>• SoC: MT7688AN</li><li>• SDRAM: 128 MB</li></ul>	<ul style="list-style-type: none"><li>• Flash: 64 MB</li></ul>
Connectivity	<ul style="list-style-type: none"><li>• ZigBee</li><li>• 802.11n/g/b 2.4 GHz Wireless (1T x 1R)</li></ul>	<ul style="list-style-type: none"><li>• Thread</li><li>• BLE and Bluetooth mesh</li></ul>
Ports	<ul style="list-style-type: none"><li>• USB 2.0</li><li>• Micro-USB</li></ul>	<ul style="list-style-type: none"><li>• 10/100 Base-T Ethernet via RJ45 port</li></ul>
Buttons	<ul style="list-style-type: none"><li>• ZigBee pairing</li><li>• Reset button</li></ul>	<ul style="list-style-type: none"><li>• WPS button</li></ul>
LEDs	<ul style="list-style-type: none"><li>• Red/Green</li></ul>	

### Physical

Dimensions (width x height)	<ul style="list-style-type: none"><li>• 89 x 27 mm (3.5 x 1.06 inches)</li></ul>	
Weight	<ul style="list-style-type: none"><li>• 80 grams (2.82 ounces)</li></ul>	
Power	<ul style="list-style-type: none"><li>• Power supply via 5V Micro-USB jack</li></ul>	
Temperature	<ul style="list-style-type: none"><li>• Operating: 0 to 40 °C (32 to 104 °F)</li></ul>	<ul style="list-style-type: none"><li>• Storage: -20 to 70 °C (-4 to 158 °F)</li></ul>
Humidity	<ul style="list-style-type: none"><li>• Operating: 20% to 90% non-condensing</li></ul>	<ul style="list-style-type: none"><li>• Storage: 5% to 95% non-condensing</li></ul>
Certifications	<ul style="list-style-type: none"><li>• CE/FCC</li></ul>	

### Order Information

Part Number	Description
DSH-G300-TBR	Thread Border Router