BROADCOM®

Product Brief

BCM4778

Ultra Low Power Dual-Frequency L1L5 GNSS Receiver

Features

- Ultra low power consumption
- Ultra small PCB footprint
- Highest levels of urban multipath mitigation
- Industry-leading position accuracy
- Advanced LTE filtering and jamming mitigation

Applications

- Smartphones
- Mobile accessories
- Wearables
- Tablets

Mechanical

- FCBGA package
- Preliminary dimensions: 2.4 mm x 2.7 mm x 0.65 mm
- Pitch: 0.35 mm

Ordering Information

- Part numbers: BCM4778A0KFFBG and BCM4778B0KFFBG
- Packing: Tape and Reel
- Minimum Order Quantity: 5,000

Overview

The Broadcom BCM4778 is the third-generation of dual-frequency L1L5 GNSS receiver chips that can support all of the complexity of the most advanced L5 processing and simultaneously deliver the lowest power consumption in the GNSS industry.

The BCM4778 supports innovative features including simultaneous tracking of line-of-sight and multiple reflections from each satellite, significantly improving the ability to mitigate urban multipath. This GNSS receiver is also capable of L5 acquisition.

The new 7 nm process, as well as the new RF architecture, enables ultra low power consumption and a very small size. The small size makes it easier to place the chip close to the antenna. If this is achieved in the device design, it becomes possible to remove the external LNAs and interstage SAW filters, hence reducing PCB footprint and BOM cost.

The BCM4778 integrates a high-efficiency switching regulator, which provides the required voltage sources for the GNSS receiver, further reducing the PCB footprint and BOM cost, as there is no need for an external PMU.

Ordering Information

Part Number	Package	Preliminary Dimensions
BCM4778A0KFFBG	FCBGA, Tape and Reel	2.4 x 2.7 x 0.65 mm, 0.35 mm pitch
BCM4778B0KFFBG	FCBGA, Tape and Reel	2.4 x 2.7 x 0.65 mm, 0.35 mm pitch

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For more product information: broadcom.com

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