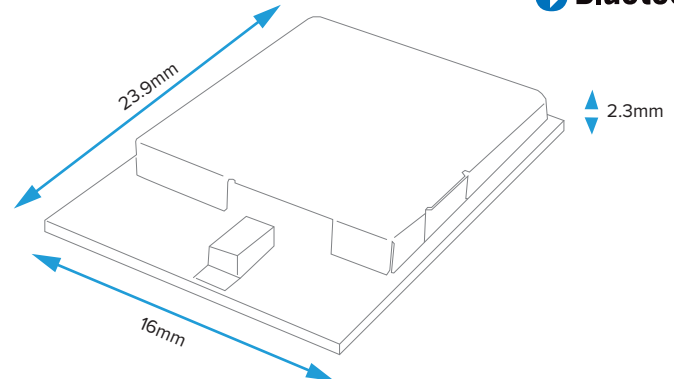
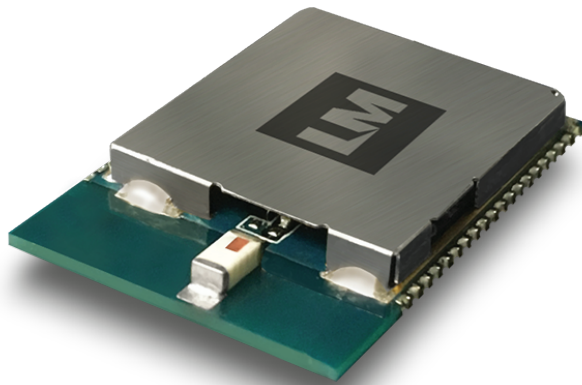




LM746 Bluetooth® Dual Mode Audio Module

Standalone (With Embedded Bluetooth® 5 Compliant Stack)

Product	LM746
Part No	See Datasheet
Revised	14/AUG/2018
Revision	v1.2



Features

- Bluetooth® 5 Compliant
- Low Power Consumption
- IC Antenna Onboard
- Partial - SPP & GATT-Based Profiles
- HSP, HFP, A2DP and AVRCP Audio Profiles
- Application Firmware Support
- Integrated 16-bit Stereo Audio CODEC
- SBC, MP3 and AAC decoder
- aptX® codec (including support for SCMS-T) and Faststream codec
- CSR's cVc noise-cancellation technology
- I2S, PCM and SPDIF Audio Interfaces
- UART and USB 2.0 (Full Speed) Serial Interfaces
- 6 Capacitive touch sensor input interfaces
- Individual PWM blocks (3 on dedicated LED pads)
- 8 digital and 2 analogue I/O
- Microphone input and Speaker output interfaces
- 23.9mm x 16mm x 2.3mm
- SMT Side and Bottom Pads for easy production
- See our website for this products certifications.
- RoHS, REACH and WEEE

Typical Applications

- Wireless Headphones and Speakers
- Hand-free Headsets
- Automotive Infotainment systems
- Home Entertainment Devices
- Audio Adapters.

Overview

The LM746 Bluetooth® Dual Mode audio module is an extremely versatile and cost effective solution. Enabling audio data to be wirelessly communicated between audio devices using a Bluetooth® v2.0, v2.1 and Bluetooth® v4.0, v4.1, (or 5 compliant) connection. It's sound enhancement features, makes it a perfect fit within your premium audio device. The sound enhancement features includes CSR's aptX® audio technology. Providing CD-like quality over a Bluetooth® connection. And CSR's cVc audio technology for noise cancellation. Perfectly suited to wireless headphones, speakers and hand-free headsets.

This standalone module allows the developer to connect a microphone, speakers, capacitive touch sensors and other I/O devices. Running the user application without using an external MCU. LM offer application support to the developer and can create new user applications for the module.

Your developed user application and settings can be preloaded to the LM746, simplifying the manufacturing and testing process. It's SMT side and bottom pads allows for easy integrations into your embedded system.



LM746 Bluetooth® Dual Mode Audio Module

Standalone (With Embedded Bluetooth® 5 Compliant Stack)

Product
Part No

LM746
See Datasheet

General Specification

Wireless

Bluetooth® Standard	5 Compliant (Dual Mode)
Module Type	Standalone (Configurable with AT Commands)
Profiles	HSP, HFP, A2DP, AVRCP, Partial-SPP and GATT-Based

Hardware

Chipset	Qualcomm
Antenna	IC Antenna Onboard
Microcontroller (MCU)	16-bit RISC 80 MHz MCU
Flash Memory	16 Mbit
RAM	56 KB
Program Interface	SPI
Interfaces	UART, PWM, USB 2.0 (Full Speed), PIO and AIO
Audio Interfaces	I2S, PCM and SPDIF
Power Supply	3V3 (VBAT) or 5V (VCHG)
Crystal Oscillators	26 MHz
Development Kit	LM558

RF Characteristics

Tx Output Power	2 dBm (Bluetooth® v2.0, v.2.1)
Rx Sensitivity	-90 dBm (Bluetooth® v2.0, v.2.1)
Data Rate	Up to 3Mbps
Frequency	2.4 GHz to 2.485 GHz

Physical Characteristics

Operating Temperature	-20°C to +75°C
Storage Temperature	-40°C to +85°C
Dimensions (L x W x H)	23.9mm x 16mm x 2.3mm
Weight	1.38g +/- 0.25g tolerance
Certifications	See our website for this products certifications.
Compliance	RoHS, REACH and WEEE