

Bluetooth Module Datasheet

Model:

FW3817-40

Version:V1.4

2014-2-9

1 Introduction

Introduces the pioneer of the Bluetooth 3.0 modules FW3817-40 which is a high performance, cost effective, low power and compact solution. The Bluetooth module provides a complete 2.4GHz Bluetooth system based on the Blue Core CSR8640 chipset which is a single chip radio and base band IC for Bluetooth 2.4GHz systems. This module is fully compliant to Bluetooth v3.0 for audiocommunications.

2 Key Features

Bluetooth Profiles

Bluetooth v3.0 specification support
HFPv1.6 wide band speech (HDvoice ready)
HSPv1.2
A2DPv1.2
AVRCPv1.4
Support for smartphone applications (apps)

Improved Audio Quality

mSBC codec support for wideband speech
2-mic far-end audio enhancements
Near-end audio enhancements (noise suppression and AEQ)
Wind noise reduction
Packet loss concealment
Bit error concealment
Automatic gain control and automatic volume control
Frequency expansion for improved speech intelligibility

Music Enhancements

Configurable 5-band EQ for music playback (rock, pop, classical, jazz, dance etc)
SBC, MP3, AAC and faststream decoder
Stereo widening (S3D)
Volume Boost
Wired Audio Mode supported
USB Audio Mode supported

Additional Functionality

Support for Voice recognition for answering a call, enables true hands-free use

Support for multi-language programmable audio prompts

CSR's proximity pairing and CSR's proximity connection

Multipoint support HFP connection to 2 handsets for voice

Multipoint support A2DP connection 2 A2DP source devices for music playback

Talk-time extension

Slim module with 21mm*14.7mm*2.0mm

3 Applications

Stereo Headsets

Wired Stereo headsets and headphones

Portable Bluetooth Stereo speakers

4 General Specifications

Mode Name	FW3817-40
Product Description	Bluetooth 3.0 class 2 module
Bluetooth Standard	Bluetooth 3.0
Chipset	CSR8640
Dimension	21mm*14.7mm*2.0mm
Operating Conditions	
Voltage	2.8~ 4.2V
Temperature	-10~ +70℃
Storage Temperature	-40~ +85℃
Electrical Specifications	
Frequency Range	2402-2480MHz
Maximum RF Transmit Power	4dBm
Receive Sensitivity	-82dBm

FCC STATEMENT

1. This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

(1) This device may not cause harmful interference.

(2) This device must accept any interference received, including interference that may cause undesired operation.

2. Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

The ECOSTONE module is designed to comply with the FCC statement. FCC ID is WYHFW3817-40. The host system using ECOSTONE, should have label indicated FCC ID WYHFW3817-40.

This radio module must not be installed to co-locate and operating simultaneously with other radios in host system, additional testing and equipment authorization may be required to operating simultaneously with other radio.

This bluetooth module has a RF port for bluetooth signal input and output, the OEM or integrator can design the actual antenna types as required. While This module has no shielding, and therefore the host equipment shall add a shielding funciton, and any host with module installed, has to be retested, then additional equipment authorization shall be achieved on the host equipment that has the module installed.