

FEASYCOM FSC-BT1026D

FEASYCOM QCC3034 Bluetooth 5.1 Audio Module Instruction Manual

Model: FSC-BT1026D

1. INTRODUCTION

This manual provides essential information for the FEASYCOM QCC3034 Bluetooth 5.1 Audio Module (Model: FSC-BT1026D). This compact, high-performance module is designed for integration into various audio applications, offering advanced Bluetooth connectivity and audio processing capabilities.

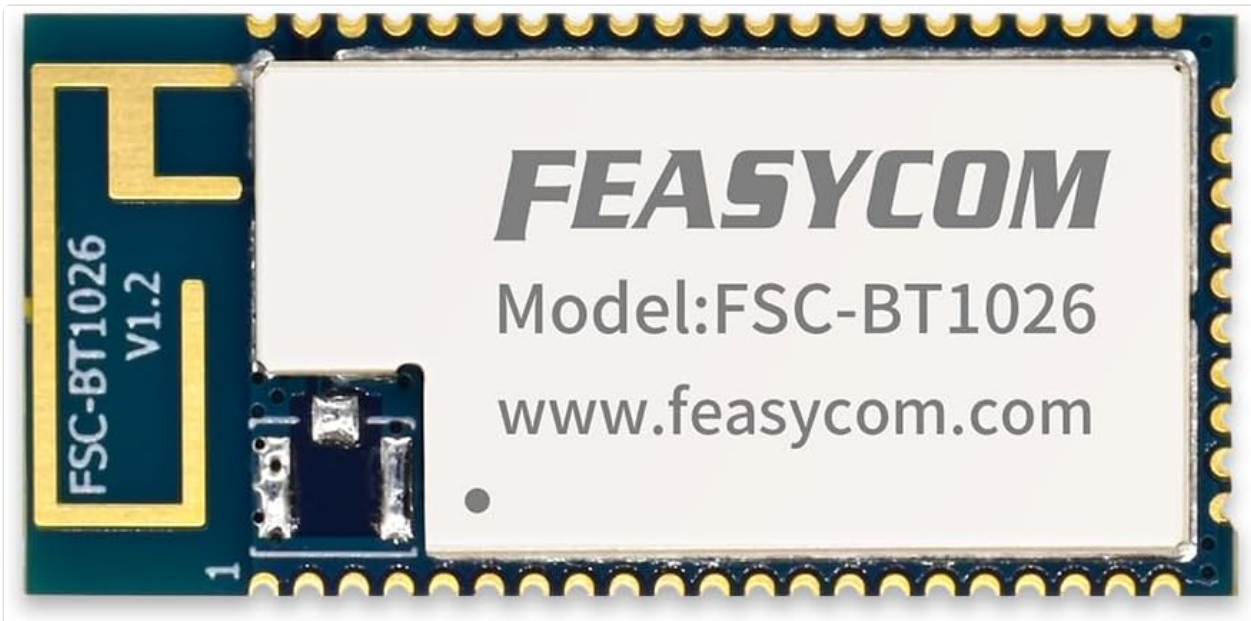


Image 1.1: Front view of the FEASYCOM QCC3034 Bluetooth 5.1 Audio Module, showing the FEASYCOM logo and model number.

Key Features:

- Qualified Bluetooth v5.1 specification for reliable wireless connectivity.
- Integrated 120MHz Qualcomm Kalimba audio DSP for advanced audio processing.
- Supports aptX, aptX HD, aptX Low Latency, SBC, and AAC audio codecs.
- Compact size: 13mm (W) x 26.9mm (L) x 1.7mm (H).

- Supports various profiles: A2DP, AVRCP, HFP, HSP, PBAP, SPP, GATT.
- Certifications: BQB, FCC, IC, CE, TELEC, KC, NCC.
- Integrated PMU with dual SMPS and Li-ion battery charger.

2. SETUP AND INTEGRATION

The FSC-BT1026D is a module designed for integration into host devices. Detailed integration instructions, including pinout diagrams and software development kits (SDKs), are typically provided by the manufacturer for developers. This section outlines general considerations for integration.

2.1. Supported Interfaces:

The module offers flexible connectivity options for integration:

- **UART:** Universal Asynchronous Receiver-Transmitter for serial communication.
- **Bit Serializer (I²C/SPI):** For inter-integrated circuit and serial peripheral interface communication.
- **USB 2.0:** For data transfer and debugging.
- **IIS/SPDIF:** Digital audio input/output.
- **Analogue Audio:** High-performance 24-bit stereo audio interface.
- **Digital and Analog Microphone Interfaces:** For voice input capabilities.
- **PIO Controller and LED Pins with PWM Support:** For general purpose input/output and indicator control.

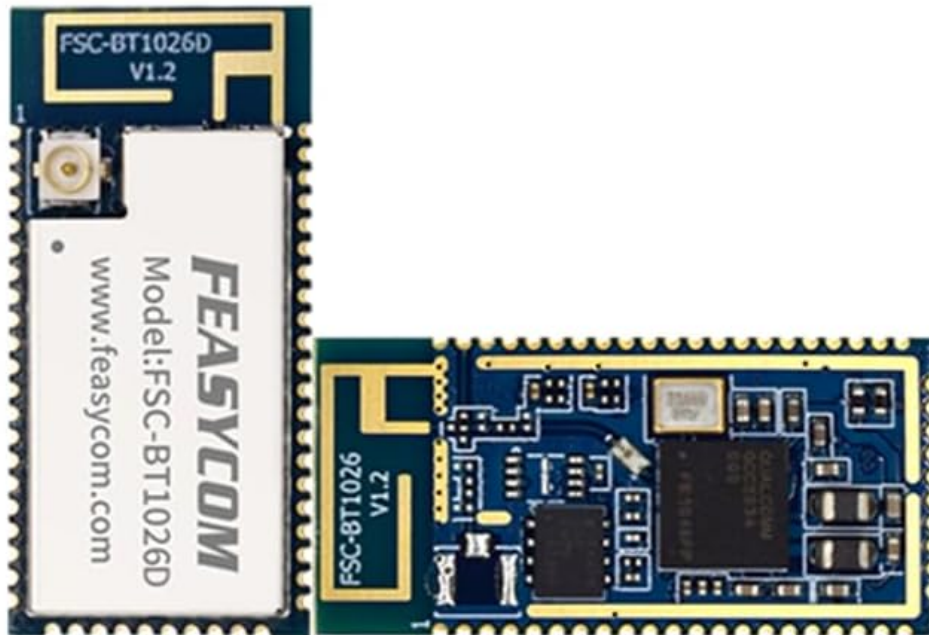
2.2. Typical Applications:

This module is suitable for a wide range of audio products, including:

- Bluetooth stereo headsets and headphones.
- Qualcomm TrueWireless stereo earbuds.
- Bluetooth speakers.
- Automotive audio systems.

Bluetooth Audio Receiver module

Hi-Fi Stereo sound, designed for high-end audio applications!



✕ aptX Lossless Audio

🔌 120 MHz Audio DSP

👉 FeasyBlue Free SDK

🔌 32 MHz Developer Processor

Image 2.1: View of the module highlighting internal components such as the 120 MHz Audio DSP and 32 MHz Developer Processor.

3. OPERATING PRINCIPLES

The FSC-BT1026D functions as a Bluetooth audio receiver module, enabling wireless audio streaming and communication for integrated devices. Its operation is governed by the host device's firmware and application.

3.1. Bluetooth Connectivity:

The module utilizes Bluetooth 5.1 technology, offering enhanced range (up to 50m/165ft), improved speed, and lower power consumption compared to previous versions. It supports dual-mode operation, compatible with both iOS and Android devices.

3.2. Audio Codecs and Profiles:

For high-quality audio transmission, the module supports a range of audio codecs:

- **aptX, aptX HD, aptX Low Latency:** Qualcomm's proprietary codecs for high-fidelity and low-latency audio.
- **SBC (Subband Coding):** Standard Bluetooth audio codec.
- **AAC (Advanced Audio Coding):** Commonly used for Apple devices and streaming services.

Supported Bluetooth profiles include A2DP (Advanced Audio Distribution Profile), AVRCP (Audio/Video Remote Control Profile), HFP (Hands-Free Profile), HSP (Headset Profile), PBAP (Phone Book Access Profile), SPP (Serial Port Profile), and GATT (Generic Attribute Profile).

4. MAINTENANCE

As an electronic module, the FSC-BT1026D requires minimal user maintenance. Proper handling and environmental conditions are crucial for its longevity and performance.

- **Environmental Conditions:** Avoid exposing the module to extreme temperatures, high humidity, dust, or corrosive environments.
- **Handling:** Handle the module with care, preferably using anti-static precautions, to prevent damage to sensitive electronic components.
- **Cleaning:** If necessary, gently clean the module's exterior with a dry, soft cloth. Do not use liquid cleaners or solvents.

5. TROUBLESHOOTING

If you encounter issues with a device integrating the FSC-BT1026D module, consider the following general troubleshooting steps. For specific issues related to the host device, refer to its dedicated manual.

5.1. Connectivity Issues:

- **Power:** Ensure the module and host device are receiving adequate power.
- **Range:** Verify that the Bluetooth source device is within the module's operational range (up to 50m/165ft). Obstacles can reduce range.
- **Pairing:** Confirm that the module is correctly paired with the source device. If issues persist, try unpairing and re-pairing.
- **Interference:** Minimize interference from other 2.4 GHz wireless devices (e.g., Wi-Fi routers, microwaves).

5.2. Audio Quality Issues:

- **Source Quality:** Ensure the audio source (e.g., music file, streaming service) is of high quality.
- **Codec Compatibility:** Verify that both the source device and the module support the desired audio codec (e.g., aptX HD).
- **Volume Levels:** Check volume settings on both the source device and the host device.

6. SPECIFICATIONS

Detailed technical specifications for the FEASYCOM QCC3034 Bluetooth 5.1 Audio Module (FSC-BT1026D).

Dimension

13mm



- Dimension: 13mm(W) x 26.9mm(L) x 2.2mm(H) Tolerance: +0.1mm
- Module size: 13mm x 26.9mm Tolerance: +0.2mm
- Pad size: 1.6mm x 0.6mm Tolerance: +0.2mm
- Pad pitch: 1.0mm Tolerance: +0.1mm

Image 6.1: Diagram illustrating the dimensions of the FSC-BT1026D module.

Feature	Detail
Model Number	FSC-BT1026D
Bluetooth Version	5.1 (Dual Mode)
Chipset	Qualcomm QCC3034
Dimensions (L x W x H)	26.9 mm x 13 mm x 1.7 mm (0.51 x 1.06 x 0.06 inches)
Weight	1 Grams (0.035 ounces)
Transmit Power	9 dBm
Coverage Range	Up to 50 meters (165 feet)
Data Transfer Rate	50 Megabits Per Second
Supported Audio Codecs	aptX, aptX HD, aptX Low Latency, SBC, AAC
Supported Profiles	A2DP, AVRCP, HFP, HSP, PBAP, SPP, GATT
Interfaces	UART, I ² C/SPI, USB 2.0, IIS, SPDIF, Analogue Audio, Digital/Analog Mic
Certifications	BQB, FCC, IC, CE, TELEC, KC, NCC

Feature	Detail
UPC	768253192452



Image 6.2: The FSC-BT1026D module shown alongside a US dollar coin, illustrating its compact size.

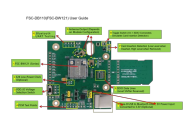
7. WARRANTY AND SUPPORT

FEASYCOM provides technical support and resources for its products. For detailed warranty information, technical documentation, and developer resources, please refer to the official FEASYCOM website or contact their support team directly.

- **Manufacturer:** Shenzhen Feasycom Technology Co., LTD
- **Online Store:** [Visit the FEASYCOM Store on Amazon](#)
- **Product ASIN:** B09P1KCSHJ

Related Documents - FSC-BT1026D

	Feasycom FSC-BT986: Bluetooth 5.2 Dual Mode Module Datasheet Detailed datasheet for the Feasycom FSC-BT986, a high-performance Bluetooth 5.2 BR/EDR/BLE module. Covers specifications, hardware, electrical characteristics, RF performance, mechanical details, layout guidelines, and application schematics.
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	Feasycom FSC-BT9104DI Bluetooth 5.3 Module Datasheet Detailed datasheet for the Feasycom FSC-BT9104DI Bluetooth 5.3 module, covering features, general specifications, hardware integration, soldering recommendations, layout guidelines, and FCC statements.
	FSC-BT986: Feasycom 5.0 Dual Mode Bluetooth Module Datasheet Detailed technical datasheet for the Feasycom FSC-BT986, a high-performance Bluetooth 5.0 Dual Mode (BR/EDR/BLE) module. Includes specifications, hardware integration, electrical characteristics, and compliance information.
	Feasycom FSC-BT630 Bluetooth 5.2 Low Energy Module Datasheet Datasheet for the Feasycom FSC-BT630, a compact wireless microcontroller module supporting Bluetooth 5.2 Low Energy. This document details its technical specifications, hardware features, electrical characteristics, and integration guidelines for IoT, home automation, and wearable applications.
	Feasycom FSC-BT982 Bluetooth 5.2 Module Datasheet Detailed datasheet for the Feasycom FSC-BT982, a high-performance, highly integrated Bluetooth 5.2 dual-mode module. Covers specifications, hardware details, electrical characteristics, RF performance, integration, and packaging.
	FSC-DB110 (FSC-BW121) User Guide User guide for the FSC-DB110 development board, featuring the FSC-BW121 module. Details hardware features, connectors, and test points for Bluetooth UART testing and SDIO interface.



FSC-BT1026D

Bluetooth Module Datasheet
Version 1.3

[pdf] User Manual Specifications Datasheet

Users Manual Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC

2AMWOFSCBT1026D fsc bt1026d

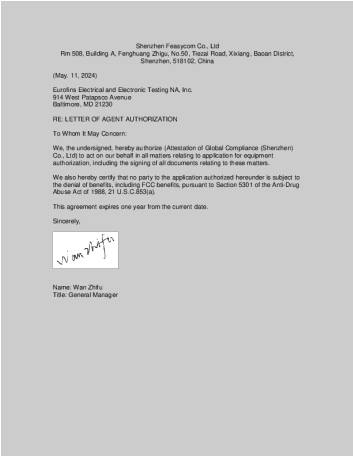
FSC-BT1026 Datasheet **FSC-BT1026D** Bluetooth Module Datasheet Version 1.3
Shenzhen Feasycom Technology Co.,Ltd -1- www.feasycom.com FSC-BT1026
Datasheet 1. INTRODUCTION Overview **FSC-BT1026D** it is a Bluetooth dual-mode
module series. It supports a Bluetooth Low Energy and compliant system for a...
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[pdf] Datasheet

feasycom FSC BT1026D datasheet details DiGi Electronics FSCBT1026D digi electronics 951 |||
FSC-BT1026D Datasheet https://www.DiGi-Electronics.com DiGi Electronics Part
Number Manufacturer Manufacturer Product Number Description Detailed Description
FSC-BT1026D-DG Shenzhen Feasycom Co., LTD **FSC-BT1026D FSC-BT1026D IS**
A BLUETOOTH 5.1 D RF Transceiver, Bluetooth 2.4GHz - 2.48GHz Blueto ot...
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[pdf] Declaration of Conformity

Launch Studio Complete the Project and Submit Product s for Qualification Details Name Bluetooth
Module Referenced Qualified Design Listing Date 2021 06 25 Declaration ID D055017 Feasycom BQB
FSC BT1026C BT1026D BT1026E file feasycom certificate BT1026 FCC IC CE TELEC KC NCC SRRC
|||
Project Details Project Name Referenced Qualified Design s Listing Date Declaration
ID Product List ... /21/2022 12:00:00 AM 6/21/2022 12:00:00 AM Model Number
Description FSC-BT1026 Bluetooth Module **FSC-BT1026D** Feasycom Bluetooth
Module FSC-BT1026C Feasycom Bluetooth Module FSC-BT1026E Feasycom Blu...
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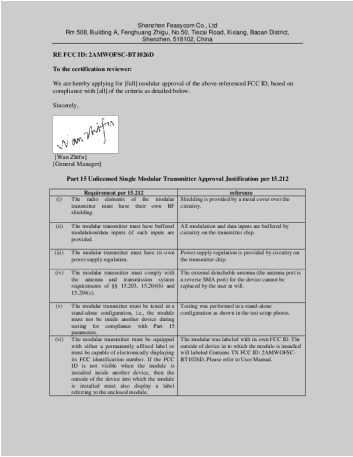
[pdf] Agent Authorization

Date Chloe Agent Authorization Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module

2AMWOFSC 2AMWOFSCBT1026D fsc bt1026d

Shenzhen Feasycom Co., Ltd Rm 508, Building A, Fenghuang Zhigu, No.50, Tiezai Road, Xixiang, Baoan District, Shenzhen, 518102, China May. 11, 2024 Eurofins Electrical and Electronic Testing NA, Inc. 914 West Patapsco Avenue Baltimore, MD 21230 RE: LETTER OF AGENT AUTHORIZATION To Whom It May Conce...

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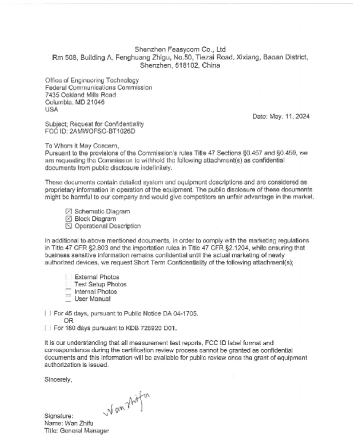
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Part 15 Unlicensed Modular Transmitter Approval Justification ITS letter Shenzhen Feasycom Co Ltd FSC

BT1026D Bluetooth module 2AMWOFSC 2AMWOFSCBT1026D fsc bt1026d

Shenzhen Feasycom Co., Ltd Rm 508, Building A, Fenghuang Zhigu, No.50, Tiezai Road, Xixiang, Baoan District, Shenzhen, 518102, China RE FCC ID: 2AMWOFSC-BT1026D To the certification reviewer: We are hereby applying for full modular approval of the above-referenced FCC ID, based on compliance with ...

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[pdf] Confidentiality Request Letter

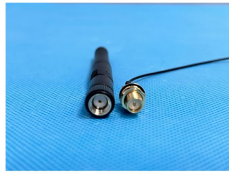
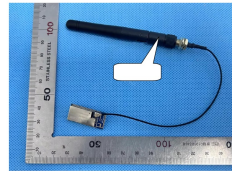
Confidentiality Letter Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC

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Attestation of Global Compliance/Thomson/ITM & Tech Co., Ltd
Tel: +86-755 2523 8366 E-mail: agc@agcnet.com Web: <http://www.agcnet.com/>

[\[pdf\]](#) Product Photos

Administrator External Photos Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module
2AMWOFSC 2AMWOFSCBT1026D fsc bt1026d

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Shenzhen Feizycom Co., Ltd
Rm 508, Building A, Fenghuang Zhiguo, No. 50, Tieshi Road, Xixiang, Buxian District, Shenzhen, 518102,
China

Federal Communications Commission
 Authorization and Evaluation Division
 7435 Oakland Mills Road
 Columbia, MD 21046
 USA

Date: May 21, 2024

Ref: Attestation Statements Part 2.9(1)(d)(5)(i) Filing
PCC ID: 2AMWOFSC-8T10250
FRN: 0026678862

(Shenzhen Easycom Co., Ltd.) ["the applicant"] certifies that the equipment for which authorization is sought is not "covered" equipment prohibited from receiving an equipment authorization pursuant to section 2.903 of the FCC rules.

Sincerely,

(Applicant signature)
Name: Wan Zhili
Title: General Manager

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not covered equipment i Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC
2AMWOFSCBT1026D fsc bt1026d

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RF Exposure Report

Report No.: AGC03285240402FH01

FCC ID	: ZAMW0FSC-BT1026D
APPLICATION PURPOSE	: Original Equipment
PRODUCT DESIGNATION	: Bluetooth module
BRAND NAME	: Fearycom
MODEL NAME	: FSC-BT1026D
APPLICANT	: Shenzhen Fearycom Co., Ltd
DATE OF ISSUE	: May 30, 2024
STANDARD(S)	: FCC KDB 447498 D01 V06
REPORT VERSION	: V1.0

Attestation of Global Compliance (Shenzhen) Co., Ltd

Any report having not been signed by authorized personnel, or having been altered without authorization, or having not been stamped by the "Dedicated Testing/Inspection Stamp" is deemed to be invalid. Copying or reproducing portion of, or altering the content of the report is not permitted without the written authorization of AGC. The test result presented in the report apply only to the tested samples. Any objections to report submitted by AGC should be submitted to AGC within 10days after the issuance of the test result. Further enquiry of validity or verification of the test-report should be addressed to AGC by agc@agccert.com.

Acceleration of Global Compliance/SheenzerCo., Ltd
 Acceleration of Global Compliance/Sheenzer@163.com
 Tel: +86-755 2532 4388 E-mail: agc@agccert.com Web: <http://www.agccert.com/>

[\[pdf\]](#) SAR Rating

RF Exposure Info Shenzhen Feascom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC
2AMWOFSCBT1026D fsc bt1026d

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[\[pdf\]](#) Product Photos Teardown

Administrator Internal Photos Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC
2AMWOFSCBT1026D fsc bt1026d

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Shenzhen Feasycorn Co., Ltd
Rm 505, Building A, Fenghuang Zhigao, No.50, Tiehai Road, Xixiang, Baoan District, Shenzhen, 518102,
China

Federal Communications Commission
 Authorization and Evaluation Division
 7632 Oakland Mills Road
 Columbia, MD 21046
 USA

Date: May 21, 2024
Ref: Attestation Statements Part 2.911(d)(5)(ii) Filing
PCC ID: 2AMWCFSC-8T1026D
FRN: C026678862

[Share'n Easycom Co., Ltd.] ("the applicant") certifies that, as of the date of the filing of the application, the applicant is not identified on the Covered List as an entity producing "covered" equipment.

Sincerely,

Was ist?

[Applicant signature]
Name: Wan Zifu
Title: General Manager

[\[pdf\]](#)

not covered equipment ii Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC
2AMWOFSCBT1026D fsc bt1026d

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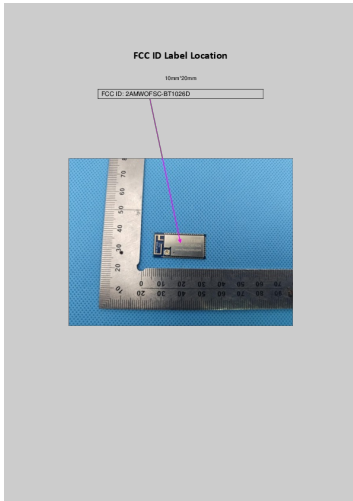


[\[pdf\]](#) Product Photos

Administrator Test Setup Photos Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module
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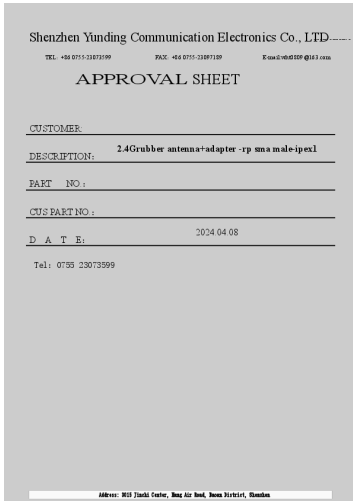


[pdf] Label

USER ID Label Location Info Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC 2AMWOFSCBT1026D fsc bt1026d

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antenna report Shenzhen Feasycom Co Ltd FSC BT1026D Bluetooth module 2AMWOFSC 2AMWOFSCBT1026D fsc bt1026d

Shenzhen Yunding Communication Electronics Co., LTSHDENZHEN TEL 86 0755-23073599 FAX 86 0755-23097189 E-mail:wht0809 163.com APPROVAL SHEET CUSTOMER: DESCRIPTION 2.4Grubber antenna adapter -rp sma male-ipex1 PART NO. CUS PART NO. D A T E Tel0755 23073599 2024.04.08 Address: 3015 Jinchi Cen...

lang:en score:17 filesize: 587.27 K page_count: 7 document date: 2024-04-08



[pdf] Specifications Datasheet

Devin Wan Bluetooth 5 1 Dual Mode Module Datasheet Version serial interface it 39 s just like a modem Therefore FSC BT1026D provides an ideal solution for developers who want to integrate wireless technology into their design Features3 Qualified Bluetooth® v5 specification 120 MHz Qualcomm® Kalimba™ audio DSP 32 Developer Processor applications V1 0 EN feasycom net Content upload 202213049 |||

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