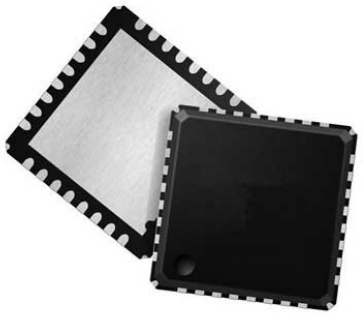
EFR32MG21A010F1024IM32-BR

BT+ZigBee Chip 2400MHz to 2483.5MHz 32-Pin QFN EP T/R

Manufacturer:	Silicon Laboratories Inc
Package/Case:	QFN32
Product Type:	RF Integrated Circuits
RoHS:	RoHS Compliant/Lead free
Lifecycle:	Active



Images are for reference only

Inquiry

General Description

EFR32MG21 devices bring high performance, low power and secure solutions to the IoT. Designed to increase processing capability, improve RF performance and lower active current, EFR32MG21 devices are 2.4 GHz wireless SoCs optimized for line-powered Zigbee, Thread and Bluetooth mesh applications, including connected lighting, gateways, voice assistants and smart metering. With a dedicated security core that provides faster encryption, secure boot loading and debug access control. With better than -104 sensitivity for both 802.15.4 and Bluetooth Long Range and up to +20 dBm output power, EFR32MG21 provides a robust RF link to ensure reliable communications. The Series 2 uses the same tools as Series 1, providing easy migration and fast time-to-market with development kits, SDKs, mobile apps and our patented network analyzer.

Key Features

2.4 GHz IEEE 802.15.4

250 kbps O-QPSK DSSS

Excellent Receive Sensitivity:

Programmable Output Power: +20 dBm

Active Mode RX: 9.4 mA

Active Mode TX: 10.5 mA @0 dBm to Active Mode TX: 9.8 mA @0 dBm

Active Mode TX: 33.1 mA @10 dBm to Active Mode TX: 33.8 mA @10 dBm

Compatible with Bluetooth 5, Bluetooth 5.1 and Bluetooth mesh specification

Excellent Receive Sensitivity:

Programmable Output Power: Up to +20 dBm

Active Mode RX: 8.8 mA

Active Mode TX: 10.5 mA @ 0 dBm to Active Mode TX: 9.8 mA @0 dBm

Active Mode TX: 33.1 mA @10 dBm to Active Mode TX: 33.8 mA @ 10 dBm

12-bit 1 Msps SAR Analog to Digital Converter (ADC)

Analog Comparators (ACMP)

8 Channel DMA Controller

Peripheral Reflex System (PRS)

PTA (Packet Traffic Arbitration) for Wi-Fi Coexistence

16-bit Timer/Counters

3 Compare/Capture/PWM channels per Timer

32-bit Timer/Counter

3 Compare/Capture/PWM channels per Timer

32-bit Real Time Counter

24-bit Low Energy Timer for waveform generation

Watchdog Timers

Universal Synchronous/Asynchronous Receiver/Transmitter (UART/SPI/SmartCard(ISO 7816)/IrDA/I2S)

2C interface with SMBus support

Up to 20 General Purpose I/O pins

Output state retention and asynchronous interrupts

3 Compare/Capture/PWM channels per Timer

3 Compare/Capture/PWM channels per Timer

Output state retention and asynchronous interrupts

ARM® Cortex®-M33

DSP and Floating Point Unit

Up to 80 MHz Clock Speed

Low Active Mode Current: 50.9 µA/MHz

Up to 1024 kB of Programmable Flash

Up to 96 kB RAM

DSP and Floating Point Unit

QFN32 (4 mm x 4 mm)

Hardware Cryptographic Acceleration

AES (128/192/256), SHA-1, SHA-2 (SHA-224/SHA256), ECC (256-bit), ECDSA (256-bit) and ECDH (p192, p256), HMAC, J-PAKE

True Random Number Generator (TRNG)

Secure Boot

Secure Debug / Debug Access Control

Unique ID

AES (128/192/256), SHA-1, SHA-2 (SHA-224/SHA256), ECC (256-bit), ECDSA (256-bit) and ECDH (p192, p256), HMAC, J-PAKE

Recommended For You

EFR32BG22C112F352GM32-C

Silicon Laboratories Inc

QFN32

EFR32ZG14P231F256GM32-B

Silicon Laboratories Inc

QFN-32

EFR32BG22C112F352GM32-CR

Silicon Laboratories Inc

QFN32

EFR32MG1B232F256GM32-C0

Silicon Laboratories Inc

QFN32

EFR32MG21A010F1024IM32-B

Silicon Laboratories Inc

QFN32

EFR32BG22C224F512GM40-C

Silicon Laboratories Inc

QFN-40

EFR32BG22C224F512GM32-CR

Silicon Laboratories Inc

QFN40

EFR32MG21A020F512IM32-B

Silicon Laboratories Inc

QFN-32(4x4)

EFR32BG22C224F512GM32-C

Silicon Laboratories Inc

QFN32

EFR32BG21A010F512IM32-B

Silicon Laboratories Inc

QFN32

EFR32BG22C222F352GM32-C

Silicon Laboratories Inc

QFN32

EFR32MG1P232F256GM48-C0

Silicon Laboratories Inc

QFN48

EFR32MG21A020F1024IM32-B

Silicon Laboratories Inc

QFN32

EFR32MG21A020F768IM32-B

Silicon Laboratories Inc

QFN32

EFR32BG21A010F1024IM32-B

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QFN32