

## Equipment Description

Technical Description: <i>(Please provide a brief description of the intended use of the equipment including the technologies the product supports)</i>	Internally regulated, and shielded, PCB radio module implementing the Bluetooth Low Energy (BLE) and 802.15.4 wireless standard protocols, to enable low-power wireless communication for IoT applications. The BLE portion supports the 1M, 2M, and 125/500K coded PHYs from the spec, all based on the GFSK modulation. The 802.15.4 portion provides the base wireless protocol for higher-level communication standards like Zigbee and Thread. The product comes in a single hardware variant with an integral antenna, a meandered inverted F PCB trace.	
Manufacturer:	Silicon Laboratories Finland Oy (address: Alberga Business Park, Bertel Jungin aukio 3, FI-02600 Espoo, Finland)	
Model Name:	<b>MGM240L</b>	
Brand Name:	Silicon Labs	
Hardware Version:	1.0	
Software Version:	4.0.x (Gecko SDK)	
FCC ID of the product under test – <a href="#">see guidance here</a>	QOQ-MGM240L	
IC ID of the product under test – <a href="#">see guidance here</a>	5123A-MGM240L	

## Intentional Radiators

Technology	Bluetooth Low Energy	802.15.4	
Frequency Range (MHz to MHz)	2402 to 2480	2405 to 2480	
Conducted Declared Output Power (dBm)	10	10	
Antenna Gain (dBi)	0.64	0.64	
Supported Bandwidth(s) (MHz) (e.g. 1 MHz, 20 MHz, 40 MHz)	1M PHY: 1 2M PHY: 2	3.5	
Modulation Scheme(s) (e.g. GFSK, QPSK etc)	GFSK	O-QPSK	
ITU Emission Designator <a href="#">(see guidance here)</a> (not mandatory for Part 15 devices)			
Bottom Frequency (MHz)	2402	2405	
Middle Frequency (MHz)	2440	2445	
Top Frequency (MHz)	2480	2480	

## Un-intentional Radiators

Highest frequency generated or used in the device or on which the device operates or tunes	
Lowest frequency generated or used in the device or on which the device operates or tunes	
Class A Digital Device (Use in commercial, industrial or business environment) <input type="checkbox"/>	
Class B Digital Device (Use in residential environment only) <input type="checkbox"/>	

## AC Power Source

AC supply frequency:		Hz
Voltage		V
Max current:		A
Single Phase <input type="checkbox"/> Three Phase <input type="checkbox"/>		

### DC Power Source

Nominal voltage:	3.0	V
Extreme upper voltage:	3.8	V
Extreme lower voltage:	1.8	V
Max current:	30	mA

### Battery Power Source

Voltage:		V
End-point voltage:		V (Point at which the battery will terminate)
Alkaline <input type="checkbox"/> Leclanche <input type="checkbox"/> Lithium <input type="checkbox"/> Nickel Cadmium <input type="checkbox"/> Lead Acid* <input type="checkbox"/> *(Vehicle regulated)		
Other <input type="checkbox"/>	Please detail:	

### Charging

Can the EUT transmit whilst being charged	Yes <input type="checkbox"/> No <input type="checkbox"/>
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### Temperature

Minimum temperature:	-40	°C
Maximum temperature:	+125	°C

### Cable Loss

Adapter Cable Loss (Conducted sample)	0.3	dB
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### Antenna Characteristics

Antenna connector <input type="checkbox"/>	State impedance		Ohm
Temporary antenna connector <input type="checkbox"/>	State impedance		Ohm
Integral antenna <input checked="" type="checkbox"/>	Type: Meandered Inverted-F PCB trace	Gain	0.64 dBi
External antenna <input type="checkbox"/>	Type:	Gain	dBi
For external antenna only: Standard Antenna Jack <input type="checkbox"/> If yes, describe how user is prohibited from changing antenna (if not professionally installed): Equipment is only ever professionally installed <input type="checkbox"/> Non-standard Antenna Jack <input type="checkbox"/>			

### Ancillaries (if applicable)

Manufacturer:		Part Number:	
Model:		Country of Origin:	

I hereby declare that the information supplied is correct and complete.

Name: Enrico Taddeo

Position held: Senior Application and Certification Engineer

Date: 25 April 2022