BL654

Regulatory Information *v1.9*

1 CURRENT REGULATORY CERTIFICATIONS

The BL654 holds current certifications in the following countries:

Country/Region	Regulatory ID
USA (FCC)	SQGBL654
EU	N/A
Canada (ISED)	3147A-BL654
UK (UKCA)	N/A
Japan (MIC)	201-180112
Korea (KC)	R-C-L7C-BL654
Australia	N/A
New Zealand	N/A

2 CERTIFIED ANTENNAS

The antennas listed below were tested for use with the BL654. The OEM can choose a different manufacturer's antenna but must make sure it is of same type and that the gain is less than or equal to the antenna that is approved for use.*

***Note:** Japan (MIC) lists applicable antennas on its certificates. If your antenna is not on the approved list, regardless of whether it is comparative, it must be added to the certificate before it can be used in Japan.

Manufacturer	Model	Laird Connectivity Part Number	Type	Connector	Peak Gain	
					2400-2500 MHz	2400-2480 MHz
Laird Connectivity	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	FlexPIFA	001-0022	Flexible PIFA	IPEX MHF4	-	2 dBi
Laird Connectivity	FlexNotch	001-0023	PCB Dipole	IPEX MHF4	-	2 dBI
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4	-	2 dBI
Laird Connectivity	Laird Connectivity NFC	0600-00061	NFC	N/A	-	-
Laird Connectivity	BL654 PCB printed antenna	NA	Printed PCB	N/A	0 dBi	-
Walsin	RFDPA870900SBAB8G1	NA	Dipole	RPSMA	2dBi	
Laird Connectivity	i-FlexPIFA	EFG2400A3S	Flexible PIFA	MHF1/ MHF4	3.1	

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3 DOCUMENTATION REQUIREMENTS

To ensure regulatory compliance, when integrating the BL654 into a host device, it is necessary to meet the documentation requirements set forth by the applicable regulatory agencies. The following sections (FCC, ISED Canada, European Union, and others) outline the information that may be included in the user's guide and external labels for the host devices into which the BL654 is integrated.

4 FCC REGULATORY

Model	US/FCC
451-00001, 451-00002	SQGBL654

The 451-00001 and the 451-00002 hold full modular approvals. The OEM must follow the regulatory guidelines and warnings listed below to inherit the modular approval.

Part #	Form Factor	Tx Outputs	Antenna
451-00001	Surface Mount	8 dBm	PCB Trace
451-00002	Surface Mount	8 dBm	IPEX MHF4

Modular Approval – C2PC (March 2021)

The BL654 (451-00001 and 451-00002) has modular approval for the following:

- 802.15.4 – Standard that defines the operation of low-rate wireless personal area networks (LR-WPANs)
- Bluetooth Low Energy

Note: The 802.15.4 certifications do not apply to the BL654 USB adapters (451-00003/451-00004).

4.1 Antenna Information

The BL654 family has been designed to operate with the antennas listed below with a maximum gain of 2 dBi. The required antenna impedance is 50 ohms.

Manufacturer	Model	Laird Connectivity Part Number	Type	Connector	Peak Gain	
					2400-2500 MHz	2400-2480 MHz
Laird Connectivity	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	FlexPIFA	001-0022	PCB Dipole	IPEX MHF4	-	2 dBi
Laird Connectivity	FlexNotch	001-0023	PCB Dipole	IPEX MHF4	-	2 dBI
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4	-	2 dBI
Laird Connectivity	Laird Connectivity NFC	0600-00061	NFC	N/A	-	-
Laird Connectivity	BL654 PCB printed antenna	NA	Printed PCB	N/A	0 dBi	-
Walsin	RFDPA870900SBAB8G1	NA	Dipole	RPSMA	2dBi	
Laird Connectivity	i-FlexPIFA	EFG2400A3S	Flexible PIFA	MHF1/ MHF4	3.1	

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Note: The OEM is free to choose another vendor's antenna of like type and equal or lesser gain as an antenna appearing in the table and still maintain compliance. Reference FCC Part 15.204(c)(4) for further information on this topic. To reduce potential radio interference to other users, the antenna type and gain should be chosen so that the equivalent isotropic radiated power (EIRP) is not more than that permitted for successful communication.

4.2 FCC Documentation Requirements

Federal Communication Commission Interference Statement

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 an 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 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 Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

FCC Radiation Exposure Statement

This product complies with the US portable RF exposure limit set forth for an uncontrolled environment and is safe for intended operation as described in this manual. Further RF exposure reduction can be achieved if the product is kept as far as possible from the user body or is set to a lower output power if such function is available.

This transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This device is intended only for OEM integrators under the following condition:

1. The transmitter module may not be co-located with any other transmitter or antenna,

If the condition above is met, further transmitter testing is not required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this installed module.

IMPORTANT NOTE:

If this condition cannot be met (for example, certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID **cannot** be used on the final product. In these circumstances, the OEM integrator is responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End-Product Labeling

The end product must be labeled in a visible area with the following: ***Contains FCC ID: BL654***

Manual Information to the End User

The OEM integrator must be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

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5 ISED (CANADA) REGULATORY

Model	ID
451-00001 451-00002	3147A-BL654

Modular Approval – C2PC (March 2021)

The BL654 (451-00001 and 451-00002) has modular approval for the following:

- 802.15.4 – Standard that defines the operation of low-rate wireless personal area networks (LR-WPANs)
- Bluetooth Low Energy

Note: The 802.15.4 certifications do not apply to the BL654 USB adapters (451-00003/451-00004).

5.1 Antenna Information

This radio transmitter (IC: 3147A-BL654) *was approved by* Innovation, Science and Economic Development (ISED) Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Le présent émetteur radio (IC: 3147A-BL654) *a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les types d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.*

Manufacturer	Model	Laird Connectivity Part Number	Type	Connector	Peak Gain	
					2400-2500 MHz	2400-2480 MHz
Laird Connectivity	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	FlexPIFA	001-0022	PCB Dipole	IPEX MHF4	-	2 dBi
Laird Connectivity	FlexNotch	001-0023	PCB Dipole	IPEX MHF4	-	2 dBI
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4	-	2 dBI
Laird Connectivity	Laird Connectivity NFC	0600-00061	NFC	N/A	-	-
Laird Connectivity	BL654 PCB printed antenna	NA	Printed PCB	N/A	0 dBi	-
Walsin	RFDPA870900SBAB8G1	NA	Dipole	RPSMA	2dBi	
Laird Connectivity	i-FlexPIFA	EFG2400A3S	Flexible PIFA	MHF1/ MHF4	3.1	

Industry Canada Statement

The end user manual shall include all required regulatory information/warning as shown in this manual.

This device complies with Industry Canada's license-exempt RSSs. Operation is subject to the following two conditions:

1. This device may not cause interference; and
2. This device must accept any interference, including interference that may cause undesired operation of the device.

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

1. l'appareil ne doit pas produire de brouillage;

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2. l'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Radiation Exposure Statement

The product complies with the Canada portable RF exposure limit set forth for an uncontrolled environment and are safe for intended operation as described in this manual. The minimum separation distance for portable use is limited to 15mm assuming use of antenna with 2 dBi of gain. The further RF exposure reduction can be achieved if the product can be kept as far as possible from the user body or set the device to lower output power if such function is available.

Déclaration d'exposition aux radiations:

Le produit est conforme aux limites d'exposition pour les appareils portables RF pour les Etats-Unis et le Canada établies pour un environnement non contrôlé. La distance de séparation minimale pour l'utilisation portative est limitée à 15mm en supposant l'utilisation de l'antenne avec 2 dBi de gain. Le produit est sûr pour un fonctionnement tel que décrit dans ce manuel. La réduction aux expositions RF peut être augmentée si l'appareil peut être conservé aussi loin que possible du corps de l'utilisateur ou que le dispositif est réglé sur la puissance de sortie la plus faible si une telle fonction est disponible.

This device is intended only for OEM integrators under the following conditions:

1. The transmitter module may not be co-located with any other transmitter or antenna.

If the condition above is met, further transmitter testing is not required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

Cet appareil est conçu uniquement pour les intégrateurs OEM dans les conditions suivantes:

1. Le module émetteur peut ne pas être coïmplanté avec un autre émetteur ou antenne.

Tant que les 1 condition ci-dessus sont remplies, des essais supplémentaires sur l'émetteur ne seront pas nécessaires. Toutefois, l'intégrateur OEM est toujours responsable des essais sur son produit final pour toutes exigences de conformité supplémentaires requis pour ce module installé.

IMPORTANT NOTE:

If this condition cannot be met (for example, certain laptop configurations or co-location with another transmitter), then the Canada authorization is no longer considered valid and the IC ID **cannot** be used on the final product. In these circumstances, the OEM integrator is responsible for re-evaluating the end product (including the transmitter) and obtaining a separate Canada authorization.

NOTE IMPORTANTE:

Dans le cas où ces conditions ne peuvent être satisfaites (par exemple pour certaines configurations d'ordinateur portable ou de certaines co-localisation avec un autre émetteur), l'autorisation du Canada n'est plus considéré comme valide et l'ID IC ne peut pas être utilisé sur le produit final. Dans ces circonstances, l'intégrateur OEM sera chargé de réévaluer le produit final (y compris l'émetteur) et l'obtention d'une autorisation distincte au Canada.

End-Product Labeling

The final end product must be labeled in a visible area with the following: ***Contains IC: 3147A-BL654***

Plaque signalétique du produit final

Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: ***Contient des IC: 3147A-BL654***

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.

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Manuel d'information à l'utilisateur final

L'intégrateur OEM doit être conscient de ne pas fournir des informations à l'utilisateur final quant à la façon d'installer ou de supprimer ce module RF dans le manuel de l'utilisateur du produit final qui intègre ce module.
Le manuel de l'utilisateur final doit inclure toutes les informations réglementaires requises et avertissements comme indiqué dans ce manuel.

5.2 ISED ICES-003 Issue 7 Compliance Declaration

This device was originally tested to the requirements of ICES-003 Issue 6, Information Technology Equipment (Including Digital Apparatus) — Limits and Methods of Measurement; and evaluated to the updates published in ICES-003, Issue 7, Information Technology Equipment (Including Digital Apparatus). Based on this evaluation, this product continues to observe compliance to the requirements set forth by The Innovation, Science and Economic Development Canada (ISED), and complies with the updates published in ICES-003, Issue 7, Information Technology Equipment (Including Digital Apparatus).

6 JAPAN (MIC) REGULATORY

The BL654 is approved for use in the Japanese market. The part numbers listed below hold WW type certification. Refer to **ARIB-STD-T66** for further guidance on OEM's responsibilities.

Model	Certificate Number	Antenna
451-00001	201-180112	PCB Trace
451-00002	201-180112	IPEX MHF4

6.1 Antenna Information

The BL654 was tested with antennas listed below. The OEM can choose a different manufacturers antenna but must make sure it is of same type and that the gain is lesser than or equal to the antenna that is approved for use.

Manufacturer	Model	Laird Connectivity Part Number	Type	Connector	Peak Gain	
					2400-2500 MHz	2400-2480 MHz
Laird Connectivity	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	FlexPIFA	001-0022	PCB Dipole	IPEX MHF4	-	2 dBi
Laird Connectivity	FlexNotch	001-0023	PCB Dipole	IPEX MHF4	-	2 dBI
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4	-	2 dBI
Laird Connectivity	Laird Connectivity NFC	0600-00061	NFC	N/A	-	-
Laird Connectivity	BL654 PCB printed antenna	NA	Printed PCB	N/A	0 dBi	-
Walsin	RFDPA870900SBAB8G1	NA	Dipole	RPSMA	2dBi	

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6.2 Labeling Requirements

It is recommended that the host device bears a label showing the Japanese “GITEKI” mark and the certification number accompanied by the following statement:

当該機器には電波法に基づく、技術基準適合証明等を受けた特定無線設備を装着している

Translation: *This equipment contains specified radio equipment that has been certified to the Technical Regulation Conformity Certification under the Radio Law.*

201-180112

7 KOREA (KC) REGULATORY

The BL654 is approved for use in the Korean market.

Model	Certificate Number
BL654	R-C-L7C-BL654

R-C-L7C-BL654

8 AUSTRALIA AND NEW ZEALAND REGULATORY

RCM: Pending Compliant to standards EN 300 328 V1.9.1, AS/NZS 4268: 2012-A1:2013, and EN 55022:2010/AC:2011
If this device is used in a product, the OEM has responsibility to verify compliance of the final end product to the Australia/New Zealand (RCM) Standards. All end-products require their own certification (SDoc). You will not be able to leverage the module certification and ship product into the country.

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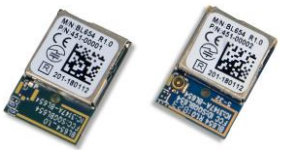
9 UK (UKCA)

Manufacturer	Laird Connectivity
Products	451-00001, 451-00002
Product Description	Bluetooth v5.1 + 802.15.4 + NFC
UK Legislation	Radio Equipment Regulations 2017 Electromagnetic Compatibility Regulations 2016 Electrical Equipment (Safety) Regulations 2016



Reference standards used for conformity:

Legislation	Requirement	Reference standard(s)	
Safety	Low voltage equipment safety	EN 62368-1: 2014 + A11:2017	
	RF Exposure	EN 62311:2008 EN 50385:2017	
EMC	Protection requirements – Electromagnetic compatibility	EN 301 489-1 v2.2.0 (2017-03) (Draft) EN 301 489-3 v2.1.1 (Draft) EN 301 489-17 v3.2.0 (2017-03) (Draft)	
Radio Equipment	Means of the efficient use of the radio frequency spectrum (ERM)	EN 300 328 v2.2.2 (2019-07)	Means of the efficient use of the radio frequency spectrum (ERM)
		EN 300 330 v2.1.1 (2017-02)	Short Range Devices (SRD)

Declaration:

We, Laird Connectivity, declare under our sole responsibility that the essential test suites have been carried out and that the above product to which this declaration relates is in conformity with all the applicable requirements outlined above, when used for its intended purpose.

The minimum distance between the user and/or any bystander and the radiating structure of the transmitter is 20 cm.

Place of Issue:	Laird Connectivity W66N220 Commerce Court, Cedarburg, WI 53012 USA tel: +1-262-375-4400 fax: +1-262-364-2649
Date of Issue:	September 9, 2021
Name of Authorized Person:	Brian Petted, Technology Leader
Signature of Authorized Person:	

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10 CE REGULATORY

The 451-00001/451-00002 have been tested for compliance with relevant standards for the EU market. The 451-00002 module was tested with a 2 dBi antenna. The OEM can operate the 451-00002 module with any other type of antenna but must ensure that the gain does not exceed 2 dBi to maintain the Laird Connectivity approval.

The OEM should consult with a qualified test house before entering their device into an EU member country to make sure all regulatory requirements have been met for their complete device.

Reference the Declaration of Conformities listed below for a full list of the standards that the modules were tested to. Test reports are available upon request.

Modular Approval – C2PC (March 2021)

The BL654 (451-00001 and 451-00002) has modular approval for the following:

- 802.15.4 – Standard that defines the operation of low-rate wireless personal area networks (LR-WPANs)
- Bluetooth Low Energy

Note: The 802.15.4 certifications do not apply to the BL654 USB adapters (451-00003/451-00004).

10.1 Antenna Information

The antennas listed below were tested for use with the BL654. For CE mark countries, the OEM is free to use any manufacturer's antenna and type of antenna if the gain is less than or equal to the highest gain approved for use (2dBi) Contact a Laird Connectivity representative for more information regarding adding antennas.

Manufacturer	Model	Laird Connectivity Part Number	Type	Connector	Peak Gain	
					2400-2500 MHz	2400-2480 MHz
Laird Connectivity	NanoBlue	EBL2400A1-10MH4L	PCB Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	FlexPIFA	001-0022	PCB Dipole	IPEX MHF4	-	2 dBi
Laird Connectivity	FlexNotch	001-0023	PCB Dipole	IPEX MHF4	-	2 dBI
Mag.Layers	EDA-8709-2G4C1-B27-CY	0600-00057	Dipole	IPEX MHF4	2 dBi	-
Laird Connectivity	mFlexPIFA	EFA2400A3S-10MH4L	PIFA	IPEX MHF4	-	2 dBI
Laird Connectivity	Laird Connectivity NFC	0600-00061	NFC	N/A	-	-
Laird Connectivity	BL654 PCB printed antenna	NA	Printed PCB	N/A	0 dBi	-
Walsin	RFDPA870900SBAB8G1	NA	Dipole	RPSMA	2dBi	

Note: The BL654 module internal BLE chipset IC pins are rated 2 kV (ESD HBM). ESD can find its way through the external JTAG connector (if used on the customer's design), if discharge is applied directly. Customer should ensure adequate protection against ESD on their end product design (using the BL654 module) to meet relevant ESD standard (for CE, this is EN301-489).

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10.2 User's Guide Requirements

The integrator must include specific information in the user's guide for the device into which the BL654is integrated. In addition to the required FCC and IC statements outlined above, the following Radio Equipment Directive (RED) statements must be added in their entirety and without modification into a prominent place in the user's guide for the device into which the BL654 is integrated:

This device complies with the essential requirements of the 2014/53/EU – Radio Equipment Directive (RED). The following test methods have been applied in order to prove presumption of conformity with the essential requirements of the 2014/53/EU – Radio Equipment Directive (RED):

- **EN 62368-1:2014/A11:2017**
  Safety requirements for audio/video, information, and technology equipment
- **EN 300 328 v2.2.2 (2019-07)**
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); Wideband Transmission systems; Data transmission equipment operating in the 2,4 GHz ISM band and using spread spectrum modulation techniques; Harmonized EN covering essential requirements under article 3.2 of the R&TTE Directive
- **EN 62311:2008 | EN 50385:2017**
  RF exposure
- **EN 301 489-1 v2.2.0 (2017-03)**
  Electromagnetic compatibility and Radio Spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 1: Common technical requirements
- **EN 301 489-17 V3.2.0 (2017-03)**
  Electromagnetic compatibility and Radio spectrum Matters (ERM); ElectroMagnetic Compatibility (EMC) standard for radio equipment and services; Part 17: Specific conditions for 2,4 GHz wideband transmission systems and 5 GHz high performance RLAN equipment
- **EU 2015/863 (RoHS 3)**
  Declaration of Compliance – EU Directive 2015/863; Reduction of Hazardous Substances (RoHS)

This device is a 2.4 GHz wideband transmission system (transceiver), intended for use in all EU member states and EFTA countries, except in France and Italy where restrictive use applies.

In Italy the end-user should apply for a license at the national spectrum authorities in order to obtain authorization to use the device for setting up outdoor radio links and/or for supplying public access to telecommunications and/or network services.

This device may not be used for setting up outdoor radio links in France and in some areas the RF output power may be limited to 10 mW EIRP in the frequency range of 2454 – 2483.5 MHz. For detailed information the end-user should contact the national spectrum authority in France.

български [Bulgarian]	С настоящото *[име на производителя]* декларира, че това устройство *[вид оборудване]* е в съответствие със съществените изисквания и други приложими разпоредби на Директиви 2014/53/EC
Hrvatski [Croatian]	*[naziv proizvođača]* ovim putem izjavljuje da je ovaj uređaj *[vrsta opreme]* sukladan osnovnim zahtjevima i ostalim bitnim odredbama Direktiva 2014/53/EU
Česky [Czech]	*[Jméno výrobce]* tímto prohlašuje, že tento *[typ zařízení]* je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnice 2014/53/EU.
Dansk [Danish]	Undertegnede *[fabrikantens navn]* erklærer herved, at følgende udstyr *[udstyrets typebetegnelse]* overholder de væsentlige krav og øvrige relevante krav i direktiv 2014/53/EU.
Deutsch [German]	Hiermit erklärt *[Name des Herstellers]*, dass sich das Gerät *[Gerätetyp]* in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti [Estonian]	Käesolevaga kinnitab *[tootja nimi]* seadme *[seadme tüüp]* vastavust direktiivi 2014/53/EL põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, *[name of manufacturer]*, declares that this *[type of equipment]* is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.

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Español [Spanish]	Por medio de la presente *[nombre del fabricante]* declara que el *[clase de equipo]* cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/UE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ *[όνομα του κατασκευαστή]* ΔΗΛΩΝΕΙ ΟΤΙ *[εξοπλισμού]* ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΕ.
Français [French]	Par la présente *[nom du fabricant]* déclare que l'appareil *[type d'appareil]* est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/UE.
Íslenska [Icelandic]	Hér, *[Nafn framleiðanda]*, því yfir að þetta *[gerð búnaðar]* tæki er í samræmi við grunnkröfur og önnur viðeigandi ákvæði tilskipana 2014/53/ ESB
Italiano [Italian]	Con la presente *[nome del costruttore]* dichiara che questo *[tipo di apparecchio]* è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/UE.
Latviešu valoda [Latvian]	Aršo*[izgatavotājanosaukums]* deklarē, ka *[iekārtas tips]* atbilstDirektīvas 2014/53/ES būtiskajāmprasībām un citiemar to saistītajiemnoteikumiem.
Lietuvių kalba [Lithuanian]	Šiuo *[gamintojo pavadinimas]* deklaruoja, kad šis *[įrangos tipas]* atitinka esminius reikalavimus ir kitas 2014/53/ES Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart *[naam van de fabrikant]* dat het toestel *[type van toestel]* in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Malti [Maltese]	Hawnhekk, *[isem tal-manifattur]*, jiddikjara li dan *[il-mudel tal-prodott]* jikkonforma mal-ħtiġijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/UE.
Magyar [Hungarian]	Alulírott, *[gyártó neve]* nyilatkozom, hogy a *[... típus]*megfelel a vonatkozó alapvetõ követelményeknek és az 2014/53/EU irányelv egyéb elõírásainak.
Norsk [Norwegian]	Herved *[navnet på produsenten]*, erklærer at denne *[type utstyr]* enheten, er i samsvar med de grunnleggende kravene og andre relevante bestemmelser i direktivene 2014/53/EU
Polski [Polish]	Niniejszym *[nazwa producenta]* oświadcza, że *[nazwa wyrobu]* jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/UE.
Português [Portuguese]	*[Nome do fabricante]* declara que este *[tipo de equipamento]* está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/UE.
Română [Romanian]	Prin prezenta, *[numele producătorului]* declară că acest dispozitiv *[tipul de echipament]* este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivelor 2014/53/UE
Slovenščina [Slovenian]	*[Ime proizvajalca]* izjavlja, da je ta *[tip opreme]* v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Slovenčina [Slovak]	*[Menovýrobcu]* týmtovyhlasuje, že *[typzariadenia]* spĺňazákladnépožiadavky a všetkypríslušnéustanovenia Smernice 2014/53/EU.
Suomi [Finnish]	*[Valmistaja]* vakuuttaa täten että *[laitteen tyyppimerkintä]* tyyppinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar *[företag]* att denna *[utrustningstyp]* står I överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.

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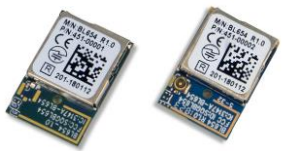
10.3 EU Declarations of Conformity

Manufacturer	Laird Connectivity
Products	451-00001, 451-00002
Product Description	Bluetooth v5.1 + 802.15.4 + NFC
EU Directives	2014/53/EU – Radio Equipment Directive (RED)



Reference standards used for presumption of conformity:

Article Number	Requirement	Reference standard(s)	
3.1a	Low voltage equipment safety	EN 62368-1: 2014 + A11:2017	
	RF Exposure	EN 62311:2008 EN 50385:2017	
3.1b	Protection requirements – Electromagnetic compatibility	EN 301 489-1 v2.2.0 (2017-03) (Draft) EN 301 489-3 v2.1.1 (Draft) EN 301 489-17 v3.2.0 (2017-03) (Draft)	
3.2	Means of the efficient use of the radio frequency spectrum (ERM)	EN 300 328 v2.2.2 (2019-07)	Wide-band transmission systems
		EN 300 330 v2.1.1 (2017-02)	Short Range Devices (SRD)

Declaration:

We, Laird Connectivity, declare under our sole responsibility that the essential radio test suites have been carried out and that the above product to which this declaration relates is in conformity with all the applicable essential requirements of Article 3 of the EU Radio Equipment Directive 2014/53/EU, when used for its intended purpose.

The minimum distance between the user and/or any bystander and the radiating structure of the transmitter is 20 cm.

Place of Issue:	Laird Connectivity W66N220 Commerce Court, Cedarburg, WI 53012 USA tel: +1-262-375-4400 fax: +1-262-364-2649
Date of Issue:	2020, March 1
Name of Authorized Person:	Brian Petted
Signature of Authorized Person:	

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11 Regulatory Domain Support

Domain support but not currently certified for – TBD

12 Revision History

Version	Date	Notes	Contributor(s)	Approver
1.0	11 Jan 2021	Initial version	Maggie Teng	Jonathan Kaye
1.1	01 Mar 2021	Updated DoC and signature	Brian Petted	Jonathan Kaye
1.2	05 Mar 2021	Fixed grammatical errors/typo; added ASNZS section	Sue White	Jonathan Kaye
1.3	16 Mar 2021	Added C2PC information	Brian Petted	Jonathan Kaye
1.4	09 Apr 2021	Changed SMA antenna connector type to RPSMA	Maggie Teng	Jonathan Kaye
1.5	20 May 2021	Added ISED ICES-003 Issue 7 compliance declaration	Sue White	Ryan Urness
1.6	09 Sept 2021	Added UKCA DoC	Sue White	Brian Petted
1.7	22 Feb 2022	Updated UKCA standards	Dave Drogowski	Jonathan Kaye
1.8	1 June 2022	Added KC Certification	Dave Drogowski	Ryan Urness
1.9	8 Dec 2023	Added EFG2400A3S to supported antennas for FCC / ISED	Dave Drogowski	Brian Petted

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