

Sterling-LWB5+ USB Adapter

Regulatory Information

v1.0

1 CURRENT REGULATORY CERTIFICATIONS

The Sterling-LWB5+ USB Adapter holds current certifications in the following countries:

Country/Region	Regulatory ID
USA (FCC)	SQG-LWB5PLUS
Canada (ISED)	3147A-LWB5PLUS
UK (UKCA)	N/A
EU	N/A
Australia (AS)	N/A
New Zealand (NZS)	N/A

2 CERTIFIED ANTENNAS

The antennas listed below were tested for use with the Sterling-LWB5+ USB Adapter.

Model	Type	Connector	Peak Gain (dBi)
ACX AD1608-A2455AAT/LF	Chip Antenna	N/A	4

3 DOCUMENTATION REQUIREMENTS

To ensure regulatory compliance, when integrating the Sterling-LWB5+ USB Adapter 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 Sterling-LWB5+ USB Adapter is integrated.

4 FCC REGULATORY

Model	US/FCC
450-00137	SQG-LWB5PLUS

4.1 Antenna Information

The Sterling-LWB5+ USB Adapter family has been designed to operate with the antennas listed below.

Model	Type	Connector	Peak Gain (dBi)
ACX AD1608-A2455AAT/LF	Chip Antenna	N/A	4

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: SQG-LWB5PLUS**

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.

5 INDUSTRY CANADA STATEMENT

Model	Canada/IC
450-00137	3147A-LWB5PLUS

5.1 Antenna Information

This radio transmitter (IC: 3147A-LWB5PLUS) was approved by Innovation, Science and Economic Development (ISED) Canada to operate with the antenna types listed below, with the maximum permissible gain indicated.

Le présent émetteur radio (IC: 3147A-LWB5PLUS) 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.

Model	Type	Connector	Peak Gain (dBi)
ACX AD1608-A2455AAT/LF	Chip Antenna	N/A	4

5.2 ISED 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;*
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 20cm assuming use of the integral antenna. 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 20cm en supposant l'utilisation de l'antenne intégrée. 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-LWB5PLUS

Plaque signalétique du produit final

*Le produit final doit être étiqueté dans un endroit visible avec l'inscription suivante: **Contient des IC:** 3147A-LWB5PLUS*

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.

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.

5.3 ICES-003 Issue 7 Compliance Statement

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 AUSTRALIA AND NEW ZEALAND REGULATORY

RCM: Compliant to standards EN 300 325 V2.2.2 AS/NZS 4268: 2012-A1:2017, and EN 55032:2015

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.

7 UK (UKCA)

7.1 UKCA Declaration of Conformity

Sterling-LWB5+ USB Adapter

Manufacturer	Laird Connectivity
Products	Sterling-LWB5+ USB Adapter
Product Description	WiFi 5 + Bluetooth 5.2 USB Adapter
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 50385:2017	
		EN IEC 62311:2008 EN 50665:2017	
EMC	Protection requirements – Electromagnetic compatibility	EN 301 489-1 v2.2.3 (2019-11) EN 301 489-17 v3.2.4 (2020-09)	
Radio Equipment	Means of the efficient use of the radio frequency spectrum (ERM)	EN 300 328 v2.2.2	Wide-band transmission systems
		EN 300 440 v2.1.1 (2017-03)	Short Range Devices (SRD)
		EN 301 893 v2.1.1	5 GHz RLAN

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:	March 15, 2022
Name of Authorized Person:	Brian Petted, Technology Leader
Signature of Authorized Person:	

8 EU REGULATORY

The Sterling-LWB5+ USB Adapter was tested for compliance with relevant standards for the EU market. The Sterling-LWB5+ USB Adapter module was tested with a 4 dBi antenna.

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.

User's Guide Requirements

The integrator must include specific information in the user's guide for the device into which the Sterling-LWB5+ USB Adapter is 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 Sterling-LWB5+ USB Adapter 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 50665:2017 | EN 50385:2017**
RF exposure
- **EN 301 489-1 v2.2.3 (2019-11)**
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 v3.2.4 (2020-09)**
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 <i>[Name des Herstellers]</i> , dass sich das Gerät <i>[Gerätetyp]</i> in Übereinstimmung mit den grundlegenden Anforderungen und den übrigen einschlägigen Bestimmungen der Richtlinie 2014/53/EU befindet.
Eesti [Estonian]	Käesolevaga kinnitab <i>[tootja nimi]</i> seadme <i>[seadme tüüp]</i> vastavust direktiivi 2014/53/EL põhinõuetele ja nimetatud direktiivist tulenevatele teistele asjakohastele sätetele.
English	Hereby, <i>[name of manufacturer]</i> , declares that this <i>[type of equipment]</i> is in compliance with the essential requirements and other relevant provisions of Directive 2014/53/EU.
Español [Spanish]	Por medio de la presente <i>[nombre del fabricante]</i> declara que el <i>[clase de equipo]</i> cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o exigibles de la Directiva 2014/53/UE.
Ελληνική [Greek]	ΜΕ ΤΗΝ ΠΑΡΟΥΣΑ <i>[όνομα του κατασκευαστή]</i> ΔΗΛΩΝΕΙ ΟΤΙ <i>[εξοπλισμού]</i> ΣΥΜΜΟΡΦΩΝΕΤΑΙ ΠΡΟΣ ΤΙΣ ΟΥΣΙΩΔΕΙΣ ΑΠΑΙΤΗΣΕΙΣ ΚΑΙ ΤΙΣ ΛΟΙΠΕΣ ΣΧΕΤΙΚΕΣ ΔΙΑΤΑΞΕΙΣ ΤΗΣ ΟΔΗΓΙΑΣ 2014/53/ΕΕ.
Français [French]	Par la présente <i>[nom du fabricant]</i> déclare que l'appareil <i>[type d'appareil]</i> est conforme aux exigences essentielles et aux autres dispositions pertinentes de la directive 2014/53/UE.
Íslenska [Icelandic]	Hér, <i>[Nafn framleiðanda]</i> , því yfir að þetta <i>[gerð búnaðar]</i> tæki er í samræmi við grunnkröfur og önnur viðeigandi ákvæði tilskipana 2014/53/ ESB
Italiano [Italian]	Con la presente <i>[nome del costruttore]</i> dichiara che questo <i>[tipo di apparecchio]</i> è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti stabilite dalla direttiva 2014/53/UE.
Latviešu valoda [Latvian]	Ar šo <i>[izgatavotājanosaukums]</i> deklarē, ka <i>[iekārtas tips]</i> atbilst Direktīvas 2014/53/ES būtiskajām prasībām un citiem ar to saistītajiem noteikumiem.
Lietuvių kalba [Lithuanian]	Šiuo <i>[gamintojo pavadinimas]</i> deklaruoją, kad šis <i>[rangos tipas]</i> atitinka esminius reikalavimus ir kitas 2014/53/ES Direktyvos nuostatas.
Nederlands [Dutch]	Hierbij verklaart <i>[naam van de fabrikant]</i> dat het toestel <i>[type van toestel]</i> in overeenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijn 2014/53/EU.
Malti [Maltese]	Hawnhekk, <i>[isem tal-manifattur]</i> , jiddikjara li dan <i>[il-mudal tal-prodott]</i> jikkonforma mal-htigijiet essenzjali u ma provvedimenti oħrajn relevanti li hemm fid-Dirrettiva 2014/53/UE.
Magyar [Hungarian]	Alulírott, <i>[gyártó neve]</i> nyilatkozom, hogy a <i>[... típus]</i> megfelel a vonatkozó alapvető követelményeknek és az 2014/53/EU irányelv egyéb előírásainak.
Norsk [Norwegian]	Herved <i>[navnet på produsenten]</i> , erklærer at denne <i>[type utstyr]</i> enheten, er i samsvar med de grunnleggende kravene og andre relevante bestemmelser i direktivene 2014/53/EU
Polski [Polish]	Niniejszym <i>[nazwa producenta]</i> oświadczam, że <i>[nazwa wyrobu]</i> jest zgodny z zasadniczymi wymogami oraz pozostałymi stosownymi postanowieniami Dyrektywy 2014/53/UE.
Português [Portuguese]	<i>[Nome do fabricante]</i> declara que este <i>[tipo de equipamento]</i> está conforme com os requisitos essenciais e outras disposições da Directiva 2014/53/UE.
Română [Romanian]	Prin prezenta, <i>[numele producătorului]</i> declară că acest dispozitiv <i>[tipul de echipament]</i> este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivei 2014/53/UE
Slovenščina [Slovenian]	<i>[Ime proizvajalca]</i> izjavlja, da je ta <i>[tip opreme]</i> v skladu z bistvenimi zahtevami in ostalimi relevantnimi določili direktive 2014/53/EU.
Slovenčina [Slovak]	<i>[Menovýrobcu]</i> týmto vyhlasuje, že <i>[typzariadenia]</i> spĺňa základné požiadavky a všetky príslušné ustanovenia Smernice 2014/53/EU.
Suomi [Finnish]	<i>[Valmistaja]</i> vakuuttaa täten että <i>[laitteen tyyppimerkintä]</i> tyypinen laite on direktiivin 2014/53/EU oleellisten vaatimusten ja sitä koskevien direktiivin muiden ehtojen mukainen.
Svenska [Swedish]	Härmed intygar <i>[företag]</i> att denna <i>[utrustningstyp]</i> står i överensstämmelse med de väsentliga egenskapskrav och övriga relevanta bestämmelser som framgår av direktiv 2014/53/EU.

8.1 EU Declarations of Conformity

Manufacturer	Laird Connectivity
Products	Sterling-LWB5+ USB Adapter
Product Description	WiFi 5 + Bluetooth 5.2 USB Adapter
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	
	RF Exposure	EN 50385:2017	
		EN IEC 62311:2020	
3.1b	Protection requirements – Electromagnetic compatibility	EN 301 489-1 v2.2.3 (2019-11)	
		EN 301 489-17 v3.2.4 (2020-09)	
3.2	Means of the efficient use of the radio frequency spectrum (ERM)	EN 300 328 v2.2.2	Wide-band transmission systems
		EN 300 440 v2.1.1 (2017-03)	Short Range Devices (SRD)
		EN 301 893 v2.1.1	5 GHz RLAN

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:	March 15, 2022
Name of Authorized Person:	Brian Petted, Technology Leader
Signature of Authorized Person:	

9 REGULATORY DOMAIN SUPPORT

Domain support but not currently certified for – TBD

10 REVISION HISTORY

Version	Date	Notes	Contributor(s)	Approver
1.0	15 Mar 2022	Initial version	Dave Drogowski	Jonathan Kaye