

Attn: Reviewing Engineer  
Federal Communications Commission  
7435 Oakland Mills Road  
Columbia, MD 21046

**RE: Certification Application**

Product Serie / PMN: LILY-W1  
FCC ID: XPYLILYW1

**Registered office:**

**u-blox AG**  
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Company number: CH-020.3.020.161-7

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## Request for Part 15 Limited Modular Transmitter Approval

To whom it may concern:

We, u-blox AG, hereby requests for a limited modular transmitter approval of our OEM-WLAN module LILY-W1. Please observe that integration of the module is to be made by the grantee himself thus limited to own use only. The equipment is described as follows:

Brand name: u-blox  
Product family: LILY-W1  
HVIN: LILY-W131 and LILY-W132  
FCC ID: XPYLILYW1

In 47 C.F.R. §15.212 there are eight numbered requirements a single modular transmitter must meet to obtain a modular transmitter approval. Our OEM-WLAN module LILY-W1 complies with all 8 (eight) of these requirements.

### 1. The modular transmitter must have its own RF shielding

The module LILY-W1 has its RF-parts covered by a shield box that is soldered on to the module ground plane.

### 2. The modular transmitter must have buffered modulation/data inputs

The WLAN module LILY-W1 does not have modulation inputs. The electrical connection consists of power supply, UART, SDIO and digital-I/O. The interface signals (UART, SDIO and digital-I/O) are internally buffered by the module SoC (System on Chip) and cannot affect the modulation.

Detailed instruction on how to connect these interface signals are given in the product Users Guide.

### 3. The modular transmitter must have its own power supply regulation

The WLAN-module LILY-W1 has its own voltage regulators. In case the supply voltage changes, the internal voltages will be kept unchanged.

### 4. The modular transmitter must comply with the antenna requirements of Section 15.203, 15.204(b) and 15.204(c)

The WLAN-module LILY-W1 is either equipped with on-board chip antenna or a unique antenna pad. The antenna pad shall be connected to an antenna via a unique U.FL coaxial connector. The antenna pad design must follow the LILY-W131 Antenna Connector Reference Design to comply with the LILY-W1 modular approval.

For further details about approved antennas please refer to the antenna data sheet included in the filing.



**5. The modular transmitter must be tested in a stand-alone configuration**

The WLAN-module LILY-W1 was tested on a reference design in a stand-alone configuration.

**6. The modular transmitter must be labelled with its own FCC ID number**

The module outline size is 14.0 x 10.0 mm and the size of the identifier label located on the shield box is only 7.5 x 7.5 mm. The model name (HVIN) is printed on the identifier label. The size of the module/label makes it not possible to print the FCC on the identifier label. Instead are the FCC and IC IDs printed on the cardboard box and on the sealed dry bag.

The module is a Surface Mount Device soldered onto the host and is not accessible to the end-user. It is not possible for the end-user to replace or remove the module. The modules are shipped to the host manufacturer as components on tape-and-reel in a sealed dry bag. The sealed dry bag is enclosed in a protective cardboard box.

Instructions will be provided to the OEM integrator how the end product must be label.

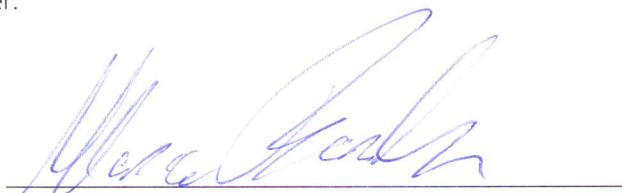
**7. The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements.**

The WLAN-module LILY-W1 is compliant with all applicable FCC rules. Detail instructions are given in the product Users Guide.

**8. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.**

The RF Module complies with the RF exposure limits when integrated into host devices categorized as mobile and/or fixed. See separate document for RF exposure calculations.

Thank you for your attention in this matter.



Marco Barchitta  
Specialist Engineer Certification, u-blox AG

Job Title and Dept.: