



Registered Office:
u-blox Berlin GmbH
Am Studio 26
12489 Berlin
Deutschland
Phone +49 30 555731018
info@u-blox.com

Modular Approval Request Letter

Geschäftsführer: Andreas Thiel, Jean
Pierre Wyss
HRG: HRB 164301 B
Steuernummer: 37/566/32328
Ust-ID: DE299197595

Date: 2023-01-17

FCC ID: XPYMAYAW2B

Type of Equipment: MAYA-W2 Host-based multiradio module

Herewith we state that the requirements according to FCC Part 15.212 are met and the module qualifies for a single modular transmitter approval.

#	Requirement as per 47 CFR Part 15 Subpart C §15.212	Conditions met? (Y/N)	Realisation / Evidence in FORM 731 application filing
i	RF shielding The radio elements of the modular transmitter must have their own shielding. The physical crystal and tuning capacitors may be located external to the shielded radio elements.	Y	The module has its RF-parts enclosed by a shield cover soldered onto the module ground plane (see external photos).
ii	Buffered modulation/data inputs. The modular transmitter must have buffered modulation/data inputs (if such inputs are provided) to ensure that the module will comply with part 15 requirements under conditions of excessive data rates or over-modulation.	Y	The module does not have modulation inputs. The electrical interface available to the module integrator consists of Power supply, UART, SPI and I/O signals. The interface signals are internally buffered by the module System on Chip and cannot affect the modulation (see operational description in System Integration Manual)
iii	Power supply regulation The modular transmitter must have its own power supply regulation.	Y	The module SoC has its own internal voltage regulators. In case the supply voltage fluctuates internal voltages will be kept unaffected (see operational description in System Integration Manual)
iv	Antenna requirements The modular transmitter must comply with the antenna and transmission system requirements of §§15.203, 15.204(b) and 15.204(c). The antenna must either be permanently attached or employ a "unique" antenna coupler (at all connections between the module and the antenna, including the cable). Additional justification and details may be requested – please refer to KDB 996369	Y	MAYA-W266 and MAYA-W276 include an internal antenna and an antenna pin that can be used with either the integrated antenna or external antenna. The module comes with the respective antenna details (see host integration instructions/ antenna specification). The spurious emission requirements are fulfilled (see attached test report).
v	Stand-alone test configuration The modular transmitter must be tested in a stand-alone configuration, i.e., the module must not be inside another device during testing for compliance with part 15 requirements. Unless the transmitter module will be battery powered, it must comply with the AC line conducted requirements found in §15.207. AC or DC power lines and data input/output lines connected to the module must not contain ferrites unless they will be marketed with the module (see §15.27(a)). The length of these lines shall be the length typical of actual use or, if that length is unknown, at least 10 centimetres to ensure that there is no coupling between the case of the module and supporting equipment. Any accessories, peripherals, or support equipment connected to the module during testing shall be unmodified and commercially available (see §15.31(i)).	Y	The module was soldered onto the evaluation board EVK-MAYA-W2 and tested in a stand-alone Configuration. The MAYA-W2 module underwent testing on the evaluation board EVK-MAYA-W2 with a reference trace to the antenna port. Both the evaluation board and reference trace aimed to minimize any impact on the module's performance. Extensive testing with other modules on the same development board, along with consistent prior results, reinforces this conclusion. Consequently, we are confident

			that, within the specified design constraints, we have diligently met this requirement. This gives us a high level of assurance that the module will demonstrate compliance when operating in a stand-alone configuration
vi	Labelling The modular transmitter must be equipped with either a permanently affixed label or must be capable of electronically displaying its FCC identification number.	Y	To be able to fit the FCC/IC certification number on the label the font size has to be smaller than 4 points. Using such small font size makes the certification number too small to be readable. Therefore, in accordance with CFR 47 §2.925 (f) the FCC IDs is not printed on the label but instead placed in the user manual and placed on the device packaging (e.g., Dry-Pac bag).
vii	Compliance on specific rule or operating requirements The modular transmitter must comply with any specific rules or operating requirements that ordinarily apply to a complete transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. A copy of these instructions must be included in the application for equipment authorization.	Y	The required FCC rules has been fulfilled and all instructions for maintaining compliance has been clearly stated in the user manual
viii	RF Exposure Radio frequency devices operating under the provisions of this part are subject to the radio frequency radiation exposure requirements specified in §§1.1307(b), 1.1310, 2.1091, and 2.1093 of this chapter, as appropriate. Applications for equipment authorization of modular transmitters under this section must contain a statement confirming compliance with these requirements. The modular transmitter must comply with any applicable RF exposure requirements in its final configuration.	Y	RF exposure requirements are fulfilled for mobile configuration. The installation of the module is restricted to mobile host devices what is clearly stated in the installation instruction of the user manual. For portable applications OEM integrators need SAR evaluation and an own FCC ID.



Filip Kruzela
Senior Certification Manager
u-blox AG