

LoRa Alliance Response to ACMA Consultation on New Arrangements for Low Interference Potential Devices - Consultation 35/2022

24th of November 2022

LoRa Alliance is very pleased with the opportunity to share its views on the new spectrum arrangements for the introduction of possible new satellite communications in this band 915-928MHz as suggested in the Consultation New arrangements for low interference potential devices - consultation 35/2022¹.

LoRa Alliance developed a regional profile AU915 for terrestrial LoRaWAN in the 915-928MHz in Australia² where significant LoRaWAN deployments have been made to power many applications in agriculture, smart cities, water metering and management and other areas to improve services and accelerate digital transformation in dense urban as well as remote rural areas.

Members of the LoRa Alliance have also considered the compatibility of LoRaWAN Terrestrial and Satellite networks and would like to support the proposed changes in the regulation in 915-928MHz enabling important innovations for the IoT networks and applications in Australia. It will indeed open new use cases for example for tracking, agriculture, wildlife protection in large and remote areas in Australia.

Furthermore, LoRa Alliance would like to provide some responses to the Question 11 of the consultation:

- LoRa Alliance is of the view that the introduction of new frequency arrangements will facilitate the use of space-based transmitters in the 915-928MHz. LoRa Alliance being interested in the frequency bands below 1GHz, it doesn't have any view on frequency regulatory changes in the other frequency bands listed in the consultation.
- LoRa Alliance doesn't require an increase of the transmit power neither for the devices on the ground nor the satellite in its orbit in space. An increase of the power level would increase the noise floor for all systems but not necessarily provide better user experience for the terrestrial LPWAN user nor the satellite LPWAN ones.
- The transmit power described in the Table 1 of the consultation should be maintained to continue the terrestrial operations.

	Class of transmitter	Permitted operating frequency band (MHz)	Maximum EIRP	Limitations
20	All transmitters	915–928	3 mW	
54	Frequency- hopping transmitters	915–928	1 W	A minimum of 20 hopping frequencies must be used.

¹ <https://www.acma.gov.au/consultations/2022-10/new-arrangements-low-interference-potential-devices-consultation-352022>

² https://loro-alliance.org/resource_hub/rp2-1-0-3-lorawan-regional-parameters/

©LoRa Alliance® | LoRa Alliance®, LoRaWAN® and LoRaWAN Certified^{CM} are trademarks of the LoRa Alliance, used by permission.

The authors reserve the right to change contents without notice.

All statements of LoRa Alliance in connection with regulatory matters are for informational purposes only. LoRa Alliance provides such information in its capacity as a stakeholder in the promotion and adoption of secure, carrier-grade IoT LPWAN connectivity and in the context of LoRa Alliance's LoRaWAN® standard. All such information is provided on an "as is" basis. Such information does not constitute technical or legal advice.

	Class of transmitter	Permitted operating frequency band (MHz)	Maximum EIRP	Limitations
58	Digital modulation transmitters	915–928	1 W	The radiated peak power spectral density in any 3 kHz must not exceed 25 mW per 3 kHz.

Table 1: Extract of the table 1 of the consultation for the authorised transmitters to be used by LoRaWAN transmitters in the LIPD class license in the 915-928MHz

- It wouldn't cause more interferences than other terrestrial gateways already authorised (satellite being considered as a gateway hundreds of kilometres away) and it enables the LoRaWAN networks operators to provide satisfactory Quality of Services for the considered use cases or the applications already being provided.
- With the current level of transmit power, LoRa Alliance doesn't foresee introduction of harmful interferences for the users of the 915-928MHz.
- LoRa Alliance would welcome further discussions on technical parameters of the satellite networks in the 915-928MHz on a case-by-case basis to maximise benefits from the satellite deployments while protecting the incumbents.

Considering that the technical remain the same, this simple change in the regulation in the 915-928MHz will be a worldwide 1st innovation for the regulation of the SRD, LPWAN or LIPD around the world. LoRa Alliance would like to thank again ACMA for the proposal and remains available for any further clarification if needed.

©LoRa Alliance® | LoRa Alliance®, LoRaWAN® and LoRaWAN Certified^{CM} are trademarks of the LoRa Alliance, used by permission.

The authors reserve the right to change contents without notice.

All statements of LoRa Alliance in connection with regulatory matters are for informational purposes only. LoRa Alliance provides such information in its capacity as a stakeholder in the promotion and adoption of secure, carrier-grade IoT LPWAN connectivity and in the context of LoRa Alliance's LoRaWAN® standard. All such information is provided on an "as is" basis. Such information does not constitute technical or legal advice.