

TCB

**GRANT OF EQUIPMENT
AUTHORIZATION**

TCB

Certification

**Issued Under the Authority of the
Federal Communications Commission**

By:

**DEKRA Testing and Certification, S.A.U.
Parque Tecnologico de Andalucia, Calle
Severo Ochoa 2 y 6
Campanillas - Malaga, 29590
Spain**

Date of Grant: 06/08/2017

Application Dated: 06/08/2017

Libelium Comunicaciones Distribuidas S.L.

Calle Escatron, 16

Edificio Libelium

Zaragoza, 50014

Spain

Attention: David Gascon , Mr

NOT TRANSFERABLE

EQUIPMENT AUTHORIZATION is hereby issued to the named GRANTEE, and is VALID ONLY for the equipment identified hereon for use under the Commission's Rules and Regulations listed below.

FCC IDENTIFIER: XKM-MESHLIUM-V1
Name of Grantee: Libelium Comunicaciones Distribuidas S.L.
Equipment Class: Part 15 Spread Spectrum Transmitter
Notes: Multiprotocol router for the Internet of Things

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
CC	15C	902.4 - 927.6	0.2979		

Ouput power is conducted.

This device is approved for mobile and fixed use with respect to RF exposure compliance. The antenna of this transmitter must provide a separation distance of at least 20 cm from all persons. Installers and end-users must be provided with operating conditions for satisfying RF exposure compliance.

Multi-transmitter, supporting simultaneous transmission, between DSS transmitter and PCB/DTS transmitters with the same FCC ID: XKM-MESHLIUM-V1 has been evaluated in this filling. Other multi-transmitter, supporting simultaneous transmission configurations, have not been evaluated and shall be evaluated according to KDB Publication 447498 and §15.31(h) and §15.31(k) composite system.

CC: This device is certified pursuant to two different Part 15 rules sections.

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FCC IDENTIFIER: XKM-MESHLIUM-V1
Name of Grantee: Libelium Comunicaciones Distribuidas S.L.
Equipment Class: Digital Transmission System
Notes: Multiprotocol router for the Internet of Things

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
CC	15C	2410.0 - 2465.0	0.087		
CC	15C	2412.0 - 2462.0	0.1746		
CC	15C	2412.0 - 2462.0	0.1387		
CC	15C	2412.0 - 2462.0	0.1377		

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Multi-transmitter, supporting simultaneous transmission, between DTS transmitter and PCB/DSS transmitters with the same FCC ID: XKM-MESHLIUM-V1 has been evaluated in this filling. Other multi-transmitter, supporting simultaneous transmission configurations, have not been evaluated and shall be evaluated according to KDB Publication 447498 and §15.31(h) and §15.31(k) composite system.

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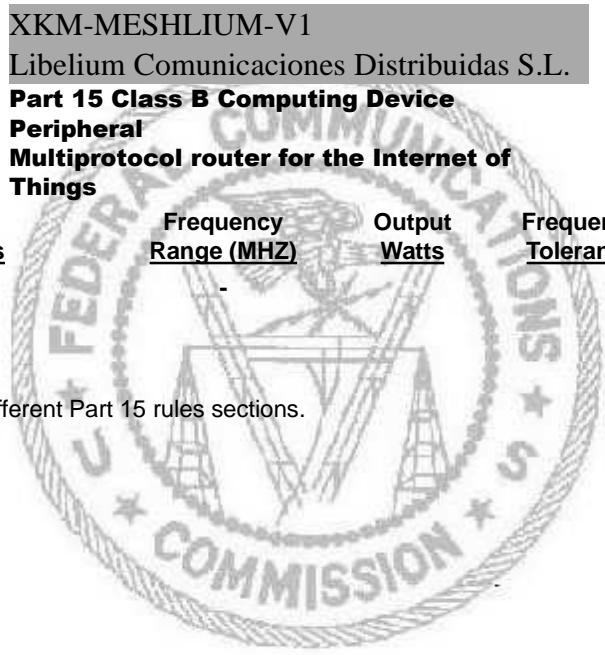
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FCC IDENTIFIER: XKM-MESHLIUM-V1
Name of Grantee: Libelium Comunicaciones Distribuidas S.L.
Equipment Class: Part 15 Class B Computing Device
Notes: Peripheral Multiprotocol router for the Internet of Things

<u>Grant Notes</u>	<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
CC	15B	-			

CC: This device is certified pursuant to two different Part 15 rules sections.



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Rules and Regulations listed below.

FCC IDENTIFIER: XKM-MESHLIUM-V1
Name of Grantee: Libelium Comunicaciones Distribuidas S.L.
Equipment Class: PCS Licensed Transmitter
Notes: Multiprotocol router for the Internet of
Things

Grant Notes

<u>FCC Rule Parts</u>	<u>Frequency Range (MHZ)</u>	<u>Output Watts</u>	<u>Frequency Tolerance</u>	<u>Emission Designator</u>
22H	824.2 - 848.2	1.62181	1.0 PM	247KGXW
22H	824.2 - 824.2	0.46774	1.0 PM	248KGXW
22H	824.2 - 848.2	0.41687	1.0 PM	248KGXW
24E	1850.2 - 1909.8	0.85704	1.0 PM	249KGXW
24E	1850.2 - 1909.8	0.23714	1.0 PM	253KGXW
24E	1850.2 - 1909.8	0.22439	1.0 PM	246KG7W
24E	1852.4 - 1907.6	0.20464	1.0 PM	4M15G9W
24E	1852.4 - 1907.6	0.19231	1.0 PM	4M17G9W
24E	1852.4 - 1907.6	0.17378	1.0 PM	4M17G9W
22H	826.4 - 846.6	0.19588	1.0 PM	4M16G9W
22H	826.4 - 846.6	0.19543	1.0 PM	4M18G9W
22H	826.4 - 846.6	0.19543	1.0 PM	4M17G9W
22H	826.5 - 846.5	0.19187	1.0 PM	4M51G7W
22H	826.5 - 846.5	0.18836	1.0 PM	4M50D7W
22H	829.0 - 844.0	0.17906	1.0 PM	9M00G7W
22H	829.0 - 844.0	0.16293	1.0 PM	9M00D7W
24E	1852.5 - 1907.5	0.18493	1.0 PM	4M50G7W
24E	1852.5 - 1907.5	0.18664	1.0 PM	4M51D7W
24E	1855.0 - 1905.0	0.17989	1.0 PM	9M02G7W

24E	1855.0 - 1905.0	0.17865	1.0 PM	8M97D7W
24E	1860.0 - 1900.0	0.17824	1.0 PM	17M9G7W
24E	1860.0 - 1900.0	0.17179	1.0 PM	17M9D7W
27	706.5 - 713.5	0.18281	1.0 PM	4M52G7W
27	706.5 - 713.5	0.16255	1.0 PM	4M52D7W
27	709.0 - 711.0	0.18664	1.0 PM	8M98G7W
27	709.0 - 711.0	0.1714	1.0 PM	9M01D7W
27	1712.5 - 1752.5	0.16866	1.0 PM	4M51G7W
27	1712.5 - 1752.5	0.17824	1.0 PM	4M51D7W
27	1715.0 - 1750.0	0.17824	1.0 PM	9M01G7W
27	1715.0 - 1750.0	0.1766	1.0 PM	8M98D7W
27	1720.0 - 1745.0	0.18072	1.0 PM	17M9G7W
27	1720.0 - 1745.0	0.1875	1.0 PM	18M0D7W

Output power is conducted.

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