

FCC Part 15D - APPLICATION FORM & SELF-DECLARATION



Applicant Name	Lightspeed Technologies, Inc.		
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Manufacturer Name	REOR ELECTRONICS CO. LTD.		
Address	5F, No.122,Caohe Rd,Jhonghe Dist, New Taipei City 235,Taiwan		

	Portable Part	Fix Part
FCC ID	ORV-LSACT	
Model Number	ACT	
Device Name	Activate charging station and wireless audio hub	
HW version	A5.0.04	
SW version	A5.0.04	
Antenna Type	Monopole	
Max. Antenna Gain (dBi)	-2	
Mains Power Voltage	Adapter Input	AC V
	Adapter Output	DC V
	FP Input	DC V
Battery Voltage	DC 24 V	

Number of channels	5				
Carriers frequency(MHz)	1921.536	1923.264	1924.992	1926.720	1928.448
Nominal Receive Bandwidth	+/- 500 kHz				
Frame period (ms)	10				
Timeslot Plan	24 timeslots per frame. First 12 timeslots used for PP transmissions and other 12 timeslots used for FP transmissions.				
Burst Length Range (us)	Min	90	Max	390	
Operating Temperature Range (°C)	Min	10	Max	40	

Does a system built with the EUT that implement the provisions of 47CFR 15.323(c)(5) enabling the use of the upper threshold for deferral?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
According to 47CFR15.323(c)(5), does your model <b>not</b> use bandwidth in further cooperation with other devices at any range?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Does a system built using the EUT that operate under the provisions of 47CFR 15.323(c)(6) incorporating provisions for waiting for a channel to go clear?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
According to 47CFR15.323(c)(8), does EUT use the same antennas for transmission and reception as for monitoring?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Does a system built with the EUT that operate under the provisions of 47CFR 15.323(c)(10) to test for deferral only in conjunction with a companion device?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
Does a system built using the EUT that operate under the provisions of 47CFR 15.323(c)(11) enabling the access criteria check on the receive channel while in the presence of collocated interferers?	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No				
According to 47CFR15.323(c)(12), does EUT <b>not</b> work in a mode with denies fair access to spectrum for other devices.	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Does your model have the monitoring made through the radio receiver used for communication?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
Does your model transmit control and signaling channels?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
According to 47CFR15.319(b), do all transmissions use only digital modulation techniques?	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No				
The provisions within the EUT for self-check, by which compliance with 47CFR15.319(f) is obtained:	A – Connection break down, cease of transmit	Situation	Reaction of EUT		
	B – Connection break down, EUT transmits signaling information C – Connection break down, compare device transmits signaling information N – Not possible	Switch-off compare device		FP	PP
		Hook-on by compare device			B
		Switch-off by EUT			N
		Hook-on at EUT side			A
		Remove Power from EUT			B
		Remove Power from compare device			A
				B	

DECLARED BY:

09/20/2017

Mike Frost

Date

Name (print)

Signature & Chop

ELECTRONICS TESTING CENTER, TAIWAN

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**NOTE:****FCC Part 15.323(c)(5)**

If access to spectrum is not available as determined by the above, and a minimum of 40 duplex system access channels are defined for the system, the time and spectrum windows with the lowest power level below a monitoring threshold of 50 dB above the thermal noise power determined for the emission bandwidth may be accessed. A device utilizing the provisions of this paragraph must have monitored all access channels defined for its system within the last 10 seconds and must verify, within the 20 milliseconds (40 milliseconds for devices designed to use a 20 milliseconds frame period) immediately preceding actual channel access that the detected power of the selected time and spectrum windows is no higher than the previously detected value.

The power measurement resolution for this comparison must be accurate to within 6 dB. No device or group of co-operating devices located within 1 meter of each other shall during any frame period occupy more than 6 MHz of aggregate bandwidth, or alternatively, more than one third of the time and spectrum windows defined by the system.

**FCC Part 15.323(c)(6)**

If the selected combined time and spectrum windows are unavailable, the device may either monitor and select different windows or seek to use the same windows after waiting an amount of time, randomly chosen from a uniform random distribution between 10 and 150 milliseconds, commencing when the channel becomes available.

**FCC Part 15.323(c)(8)**

The monitoring system shall use the same antenna used for transmission, or an antenna that yields equivalent reception at that location.

**FCC Part 15.323(c)(10)**

An initiating device may attempt to establish a duplex connection by monitoring both its intended transmit and receive time and spectrum windows. If both the intended transmit and receive time and spectrum windows meet the access criteria, then the initiating device can initiate a transmission in the intended transmit time and spectrum window. If the power detected by the responding device can be decoded as a duplex connection signal from the initiating device, then the responding device may immediately begin transmitting on the receive time and spectrum window monitored by the initiating device.

**ANSI C63.17 § 8.3**

To comply with 47CFR15.323(c)(10), the EUT must monitor both its transmit time/spectrum window and its receive time/spectrum window.

**FCC Part 15.323(c)(11)**

An initiating device that is prevented from monitoring during its intended transmit window due to monitoring system blocking from the transmissions of a co-located (within one meter) transmitter of the same system, may monitor the portions of the time and spectrum windows in which they intend to receive over a period of at least 10 milliseconds. The monitored time and spectrum window must total at least 50 percent of the 10 millisecond frame interval and the monitored spectrum must be within 1.25 MHz of the center frequency of channel(s) already occupied by that device or collocated co-operating devices. If the access criteria is met for the intended receive time and spectrum window under the above conditions, then transmission in the intended transmit window by the initiating device may commence.

**FCC Part 15.323(c)(12)**

The provisions of (c)(10) or (c)(11) shall not be used to extend the range of spectrum occupied over space or time for the purpose of denying fair access to spectrum to other devices.

**FCC Part 15.319(b)**

All transmissions must use only digital modulation techniques. Both asynchronous and isochronous operations are permitted within the 1920-1930 MHz band.

**FCC Part 15.319(f)**

The device shall automatically discontinue transmission in case of either absence of information to transmit or operational failure. These provisions are not intended to preclude transmission of control and signaling information or use of repetitive codes used by certain digital technologies to complete frame or burst intervals.