

August 30, 2021

Subject: Cover Letter for FCC Application

Applicant: Leviton Manufacturing Co., Inc.
FCC Certification Number: 2ASLN-ZL07S
Product Description: MSC Mushroom Logic Board B9604

To Whom it May Concern:

This letter is to request certification for our device, **2ASLN-ZL07S**, to the following certification service:

- New Limited Modular

Please grant FCC certification for this limited modular MSC Mushroom Logic Board B9604 – being used in total of eight (8) end-products as described below, more to be added later. This module utilizes the 2.4GHz Bluetooth low-energy 5.x and ZigBee protocols – only one transmitting at a time. All end-products share same module B9604 as logic board with different assembly variants and different power boards to support functions as required in end-product.

This limited modular certified module integrates all components (Crystals, RF passives and Chip Antenna) required for a system-level implementation of Bluetooth & ZigBee networks except the RF shield. The module PCB will act as a logic board and configured from the firmware for 2.4 GHz ZigBee mesh network and 2.4 GHz BLE 5.x radio for communication with mobile phones.

The assembly variants of the logic board have minor assembly changes to support functions as required in end-product. All variant changes are described in table below also.

- The PCB is same for all variants.
- Radio section is same for all variants with changes in antenna tuning values (Tuning # 1) to be in radio compliance.
- The SoC used on two set of end-products is different that ZLD7x-N0 & ZLDDx-N0 models [serial# 5-8 in table below] have some proprietary protocol features disabled that ZL07x-N0 & ZL0Dx-N0 models [serial# 1-4 in table below] supports those. They are equal from the Bluetooth point of view.
- The other assembly changes are based on functions required or not like sensors, HWID, external flash & its components.

This limited-modular certified module is paired with two power boards for the end-product. The power board used is described in table below also.

- The power board B9286 uses an AUX DC voltage input and 0-10V dimming functions and may contain optional sensor depending on the end-product.
- The power board B9288 uses DALI for power supply, dimming & control functions and may contain optional sensor depending on the end-product.

Firmware supports remote control via smart phones using the Leviton Intellect/ DRC application on Android or iOS.

Preliminary testing on all variations of the module demonstrated that the RF specifications and performance are similar across all models and can be considered for a limited-modular approval under a single FCC ID.

The table below shows the features for each model.

LIMITED MODULAR APPROVAL FOR LOGIC BOARD												
FCC ID#	Serial #	Leviton Part #	Configuration		Logic PCB				Power PCB			Voltage
			Power/Dimming Technology	Sensor	PCB	Antenna Tuning	Assembly Variant	Assembly Difference	PCB	Assembly Variant	Assembly Difference	
2ASLN-ZL07S	1	ZL07S-N00	AUX 0-10V	Yes	B9604	Tuning #1	D01	--	B9286	D01	--	12- 24 VDC
	2	ZL070-N00		No			D11	D01 w/o Sensor components		D02	D01 w/o Sensor components	
	3	ZL0DS-N00	DALI	Yes			D02	D01 with DALI config	B9288	D01	--	DALI
	4	ZL0D0-N00		No			D12	D02 w/o Sensor components		D02	D01 w/o Sensor components	
	5	ZLD7S-N00	AUX 0-10V	Yes			D21	D01 with BLE config	B9286	D01	--	12- 24 VDC
	6	ZLD70-N00		No			D31	D21 w/o Sensor components		D02	D01 w/o Sensor components	
	7	ZLDDS-N00	DALI	Yes			D22	D21 with DALI config	B9288	D01	--	DALI
	8	ZLDD0-N00		No			D32	D22 w/o Sensor components		D02	D01 w/o Sensor components	

If you have any questions regarding this request for certification, please feel free to contact me.

Sincerely,



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