



Minimally Invasive Therapies Group

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Telecommunication Certification Body
UL VS Ltd
Units 1-3, Horizon
Wade Road
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RE: Class II Permissive Change (C2PC) Request

FCC ID: P7G-DS1

Dear Sir or Ma'am:

In accordance with KDB 178919 D01 and FCC rule part §2.1043: Changes in Certified Equipment, Covidien llc hereby requests a Class 2 permissive change to FCC ID: P7G-DS1 as detailed below:

The Jetson (P3310) module was granted equipment authorization with specific antennas in Single Input Single Output [SISO] and Multiple Input Multiple Output [MIMO] modes. Covidien llc is intending to integrate the above FCC authorized MIMO module with the intent of modifying the original certified configuration through the following:

1. Change the existing certification from a Single Modular Approval to a Limited Singular Modular approval for the module to be installed by the in the DS1 Host Product by the Grantee holder. The module will never be installed by a third party.
2. Disable 2.4GHz Bluetooth and 2.4GHz WLAN operating bands.
3. Limit the 5GHz operating bands to NII Band 1 only.
4. The module is configured to use through the DS1 host firmware only the 20MHz Bandwidth. The possible options available during normal operation are as follows:
 - Channel 36, 40, 44, 48 - 20MHz Bandwidth (VHT20)
5. The changes will be implemented by the DS1 host firmware and cannot be changed by the end user.
6. No hardware changes have been made to the module.
7. Change of antenna type.
 - a. The combination device will be configured with a Molex 2.4/5GHz Balance Flex Antenna, part number 2042810200. The optional cable length selected for use is 200mm. This antenna is made from poly flexible material and has double-sided adhesive tape to secure it inside the finished device.
 - b. This Molex antenna has lower gain than the antenna previously certified (Pulse) with the module so the RF exposure performance is not degraded and, also, complies with the Customer Maximum Allowable Antenna Gain provided by the module manufacturer.
 - c. This Molex antenna is integral to the DS1 host product as identified in the Photo Exhibit.

Characteristic	Pulse W1043	Molex 2042810200
Antenna Type	Blade	Flex
Mounting type	External	Internal
Cable length (mm)	157.5	200
Impedance (ohm)	50	50
Polarization	Linear Vertical	Linear
Radiation pattern	Omnidirectional	Omnidirectional
Power rating (W)	3	2
Gain (4900-5825 MHz)	4	2.8
Cable Loss (dBm)	2	≤5dB/m*

*1m cable measured by VNA5071C. Balance antenna resonance is insensitive to cable's length, but the cable's loss will affect the total efficiency.



Figure 1: Molex 2042810200



Figure 2: Pulse W1043

As a result of the changes detailed above, the following test cases have been tested to verify compliance of the modified P7G-DS1:

- FCC 47 CFR Part 15 Subpart E (Report R13244152-E2, 4/30/2020)

Sincerely,

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