

Uppgjord (även faktaansvarig om annan) – Prepared (also subject responsible if other) H&D Åke Jernberger		Nr - No.		
Dokansv/Godk - Doc respons/Approved H&D Pär Bergsten	Kontr - Checked	Datum - Date 2024-08-05	Rev B	File

C2PC Application Letter

Attn: Reviewing Engineer  
Federal Communications Commission  
7435 Oakland Mills Road  
Columbia, MD 21046

HVIN:  
SPB228D

FCC Certification Number:  
XO2-SPB228D

Date:  
05/08/2024

Application to Class II Permissive Change

This request for a class 2 permissive change for the HDW Wireless module with FCC ID XO2-SPB228D for use in the host models (Trixell pixium 3543 EZk, pixium 3543 EZhk, pixium 2430 EZk)

The reason for this C2PC is to change from mobile to portable condition as well as enable use in medical equipment where the user is closer to the antenna than 20cm.

The host device is a Wi-Fi enabled X-ray detector which can be placed directly under or adjacent to the patient's body, head, or extremities during examination.

- The device has been evaluated to meet general RF exposure requirement. The device can be used in portable exposure condition without restriction.
- The device has been tested and in compliance with SAR limits. This equipment should be installed and operated with a minimum distance of 5mm between the radiator and a human body, head or extremities.
- The H&D Wireless module inside Trixell host models may not be co-located with any other transmitter.

The module is using a reduced output power table compared to the mobile device grant. The antennas are dipole antennas with lower gain than the approved antennas for the mobile grant, for both 2.4GHz and 5GHz band.

The Bluetooth can transmit simultaneously with WIFI 5GHz.

Transmission Power was reduced to reach SAR requirements when the antenna is 5 mm from a human body. The power is controlled via power tables that are loaded at startup of the SPB228D module. The transmission power was adjusted as per the table below:

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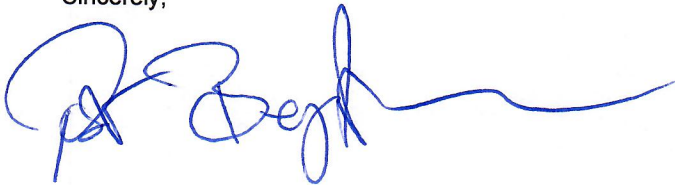
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Parameter	Conditions	Grant for Mobile	Grant for Portable	Units
2.4G/Output power	802.11b, 11Mbps	16	14	dBm
2.4G/Output power	802.11g, 54Mbps	16	14	dBm
2.4G/Output power	802.11n, MCS7 or MSC15, HT20	16	14	dBm
2.4G/Output power	802.11n, MCS7 or MSC15, HT40	16	14	dBm
5G/Output power	802.11a, 54Mbps	15	14	dBm
5G/Output power	802.11n, MCS7 or MSC15, HT20	14	14	dBm
5G/Output power	802.11n, MCS7 or MSC15, HT40	14	14	dBm
5G/Output power	802.11ac, MCS8, N <sub>ss</sub> = 2, VHT20	11	11	dBm
5G/Output power	802.11ac, MCS9, N <sub>ss</sub> = 2, VHT40	11	11	dBm
5G/Output power	802.11ac, MCS9, N <sub>ss</sub> = 2, VHT80	10	10	dBm
BT BR	GFSK	6	6	dBm
BT EDR	π/4DQPSK & 8DPSK	6	6	dBm
BT LE		6	6	dBm

The three different host devices only differ in size of the detector. The host electronics and antennas and their placement are the same for all three.

Thank you for your attention in this matter.

Sincerely,



Pär Bergsten  
CEO

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