

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

Module information

PMN	FCC ID	IC ID	FCC cert Date	IC cert Date
SPB611	XO2-SPB611	8713A-SPB611	06/10/2024	06/11/2024

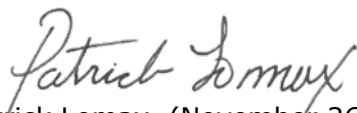
Host device / HMN: Rational WA112
Host device manufacturer:

Company Name: Tria Technologies GmbH
Address: Industriestr. 16
76297 Stutensee
Germany
Contact Person: Martin Schneider

Subject: Application for FCC Class II Permissive Change, Industry Canada Class 4
permissive change

This request for a FCC C2PC / IC C4PC against the device with FCC ID XO2-SPB611.
The reason for this permissive change is to add 1 additional antenna for use in the host device, Rational WA112 produced by Tria Technologies GmbH which is integrating the module SPB611 by H&D Wireless.
The antenna data sheet provided by the antenna manufacturer indicated that the gain of the afore mentioned antenna is within the limitations of the grants, however when measuring the gain of the overall system, the gain was found to be higher. To compensate for the increased gain, the module has been reduced in power. Thus, there is no increase in emissions. As the EIRP is lower than the original submission, the modules original MPE calculation is still applicable.

See the page below for power reduction table for additional details.



Patrick Lomax (November 26, 2025)

Senior Project manager

Wifi PowerTable definition

Mode	Frequency range	Parameter	Original Target power (dBm)	Reduced target power (dBm)	Max gain original (dBi)	New max gain (dBi)	Original EIRP (dBm)	New EIRP (dBm)	Delta EIRP (dB)
2.4G WLAN	2412 - 2462	802.11b, 11Mbps	16	14	3.8	4.8	19.8	18.8	-1
2.4G WLAN	2412 - 2462	802.11g, 54Mbps	14	12	3.8	4.8	17.8	16.8	-1
2.4G WLAN	2412 - 2462	802.11n, MCS7, HT20	14	12	3.8	4.8	17.8	16.8	-1
5G WLAN	5180 - 5825	802.11a, 54Mbps	15	12	5.5	7.77	20.5	19.77	-0.73
5G WLAN	5180 - 5825	802.11n, MCS7, HT20	15	12	5.5	7.77	20.5	19.77	-0.73
5G WLAN	5180 - 5825	802.11ac, MCS8, VHT20	14	11	5.5	7.77	19.5	18.77	-0.73
5G WLAN	5180 - 5825	802.11ac, MCS9, VHT40	12	9	5.5	7.77	17.5	16.77	-0.73
5G WLAN	5180 - 5825	802.11ac, MCS9, VHT80	10	7	5.5	7.77	15.5	14.77	-0.73
5G WLAN	5180 - 5825	802.11ax, MCS11, HE20	12	9	5.5	7.77	17.5	16.77	-0.73
5G WLAN	5180 - 5825	802.11ax, MCS11, HE40	11	8	5.5	7.77	16.5	15.77	-0.73
5G WLAN	5180 - 5825	802.11ax, MCS11, HE80	10	7	5.5	7.77	15.5	14.77	-0.73
BT BR	2402 - 2480	GFSK	6	4	3.8	4.8	9.8	8.8	-1
BT EDR	2402 - 2480	$\pi/4$ DQPSK	6	4	3.8	4.8	9.8	8.8	-1
BT EDR	2402 - 2480	8DPSK	6	4	3.8	4.8	9.8	8.8	-1
BT LE	2402 - 2480	1Mbps	6	4	3.8	4.8	9.8	8.8	-1