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Maximum Permissible Exposure according to FCC 15.247 - VIPHI2BT

Dear Mr. Nicolai Muellendorff,

please find our Maximum Permissible Exposure calculations for BRP VIP Cluster
"VIPHI2BT".

Best Regards



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VIPHI2BT MPE calculation

Model number: VIPHI2BT
FCC ID: 2AMJS-VDIBRHS01
IC: 22868-VDIBRHS01

According to FCC §15.247(b)(4) and §1.1310(b)(1), systems operation under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy level in excess of the Commission's guidelines.

MPE Prediction

<i>Frequency range (MHz)</i>	<i>Power density (mW/cm²)</i>
300 – 1500	f/1500
1500 - 100000	1 mW/cm ²

Calculation for Bluetooth (UGKZ7A1001A)

Equation for calculation

$$S = P * G / (4\pi R^2)$$

Where: S – Power density
P – Power input to antenna
G – Antenna gain relative to isotropic radiator
R – Distance to antenna

Maximum peak output power at antenna terminal: 0.00083 W

Antenna gain: 4.5 dBi

Prediction distance: 20cm

MPE limit for General Population/Uncontrolled Exposure: 1 mW/cm²

Intermediate results:

Power density at 20cm distance: **0.0005 mW/cm²**

Calculation for Bluetooth (UGXZEX304A)

Equation for calculation

$$S = P * G / (4\pi R^2)$$

Where: S – Power density
 P – Power input to antenna
 G – Antenna gain relative to isotropic radiator
 R – Distance to antenna

Maximum peak output power at antenna terminal: 0.00083 W

Antenna gain: -0.5 dBi

Prediction distance: 20cm

MPE limit for General Population/Uncontrolled Exposure: 1 mW/cm²

Intermediate results:

Power density at 20cm distance: **0.0001 mW/cm²**