FCC MPE Calculation

EUT Description: Cruz (Tablet)
Company: Velocity Micro, Inc.
Model: T510
FCC ID: ZVJ-T510

Mobile position: lap/table
Frequency: 2412-2462 MHz (11 channels)
Modulation: 11b: DSSS (DBPSK, DQPSK, CCK), 11gn(HT20): OFDM (BPSK, QPSK, 16QAM, 64QAM)
Mid-Channel: 2.437 GHz (Channel 6)
Mid-Channel Peak Power, Conducted: 12.06 dBm == 16.10 mW
Highest Peak Power measured: 12.20 (11b/Ch11) == 16.60 mW ➔ we take worst case value for further calculation, even if measured less in the mid-channel.
Antenna Gain: G = 0 dBi

For devices intended for the **General Population** and used in an **uncontrolled** manner, routine evaluation (SAR) for this device is not required, because the source-based time-averaged power (average conducted power or average radiated EIRP, whichever is the highest) is below the:

☐ Low threshold of 60/f for distances < 2.5 cm.

☒ High threshold of 60/f for distances < 20 cm.

Calculation:

Limit = 60/2.437 = 24.62 mW

$P_{radiated, max} = P_{conducted, dBm} + G_{dBi}$ = 12.20 dBm + 0 dBi == 12.20 dBm = 16.60 mW

Conclusion:

The emitted power appears to be (far) below the required limit, so PASS.

Note 1: f shall be the mid-band frequency expressed in GHz; the limit calculated with this mid-band frequency applies to all channels. For PTT with body-worn or face-held modes, d is the distance from the device case to a parson's body; for modules with antennas inside laptops, d is the distance from the antenna to the person's body.

Note 2: Average Power levels are always equal or below the measured Peak Power levels, which means that calculating the EIRP using the Peak power can be considered as worst case.)