

RF Exposure

FCC ID: OOTVPOSTC001A001

EUT Description: RF ID Reader

Company: CEC

Model: vPost-C001A001-USA

This equipment contains 8 identical RF ID transmitters, however only 1 RF ID transmitter can sent at the time. The RF ID portion is approved in this FCC filing, with an emission level meeting rule part 15.225.

In addition, this equipment contains one (1) Single Module approved IEEE802.11bg module with FCC ID: R68WIPORTG certified under 15.247 (DTS). The maximum measured Peak output power for this module is 21.1 dBm with 5dBi antenna gain. The Power density limit for mobile devices at 2.4 GHz: $S \leq 1 \text{ mW/cm}^2$

Remark: Average \leq Peak, which means that calculating the power density applying Peak power is worst case. The worst case operation mode generating the highest power in each frequency range is taken for calculation.

Frequency range: 2412-2462MHz

Maximum measured conducted power (Peak): $P_{\text{conducted}} = 21.1 \text{ dBm}$

Antenna Gain: $G = 5 \text{ dBi}$

Calculation: $P_{\text{radiated}} = P_{\text{conducted}} + G_{\text{linear}} = 21.1 \text{ dBm} + 5 \text{ dBi} = 26.1 \text{ dBm} = 407.38 \text{ mW}$

Power density $S = (P_{\text{radiated}}) / (4\pi \times d^2) = 407.38 / 5026 = 0.082 \text{ mW/cm}^2$ which is below limit, so PASS.