FCC RF EXPOSURE REPORT

EUT	On/Off Switch					
Frequency band (Operating)	 ✓ WLAN: 2.412GHz ~ 2.462GHz ✓ WLAN: 2.422GHz ~ 2.452GHz ✓ WLAN: 5.180GHz ~ 5.240GHz ✓ WLAN: 5.260GHz ~ 5.320GHz ✓ WLAN: 5.500GHz ~ 5.700GHz ✓ BLE: 2.402GHz ~ 2.480GHz ✓ Bluetooth: 2.402GHz ~ 2.480GHz 					
Device category	☐ Portable (<20cm separation) ☐ Mobile (>20cm separation)					
Exposure classification	 ☐ Occupational/Controlled exposure (S = 5mW/cm²) ☐ General Population/Uncontrolled exposure (S=1mW/cm²) 					
Antenna diversity	Single antenna ☐Multiple antennas ☐ Tx diversity ☐ Rx diversity ☐ Tx/Rx diversity					
Max. output power	25.74dBm (374.973mW)					
Antenna gain (Max)	2.0dBi(Numeric gain:1.58)					
Evaluation applied						

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TEST RESULTS

No non-compliance noted.

Calculation

Given

$$E = \frac{\sqrt{30 \times P \times G}}{d} \quad \& \quad S = \frac{E^2}{3770}$$

Where E = Field strength in Volts / meter

P = Power in Watts

G = Numeric antenna gain

d = *Distance in meters*

S = Power density in milliwatts / square centimeter

Combining equations and re-arranging the terms to express the distance as a function of the remaining variables yields:

$$S = \frac{30 \times P \times G}{3770d^2}$$

Changing to units of mW and cm, using:

$$P(mW) = P(W) / 1000$$
 and $d(cm) = d(m) / 100$

Yields

$$S = \frac{30 \times (P/1000) \times G}{3770 \times (d/100)^2} = 0.0796 \times \frac{P \times G}{d^2}$$
 Equation 1

Where d = Distance in cm

P = Power in mW

G = Numeric antenna gain

 $S = Power density in mW / cm^2$

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Maximum Permissible Exposure

Modulation Mode	. ,	Peak output power(dBm)	•	Antenna Gain (dBi)	Antenna gain (<i>Numeric</i>)	Distance (cm)	Power density (mW/cm2)	Limit (mW/cm2)
802.11b	2412-2462	22.13	163.3051948	2	1.58	20	0.05150544	1
802.11g	2412-2462	25.74	374.9730022	2	1.58	20	0.11826414	1
802.11n HT20	2412-2462	25.60	363.0780548	2	1.58	20	0.11451255	1

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