



Declaration of Electromagnetic Field Health Compliance for AP6310SN-GN

To whom it may concern,

As to the product **AP6310SN-GN** made by Huawei Technologies Co., Ltd., we declare that it complies with the Basic restrictions/Reference levels for electric, magnetic and electromagnetic fields as specified in **47CFR §1.1310** based on the following calculation model assessment:

1. The power density according to far-field model is:

$$S = \frac{P \times G_{(\theta, \phi)}}{4 \times \pi \times R^2}$$

Where:

- P = input power of the antenna.
- G = antenna gain relative to an isotropic antenna.
- θ, ϕ = elevation and azimuth angles.
- R = distance from the antenna to the point of investigation.

2. For single or multiple RF sources, the calculated power density should comply with following:

$$\sum_i \frac{S_i}{S_{Limit,i}} \leq 1$$

Where:

- S_i = the power density when the f is i .
- $S_{Limit,i}$ = the reference level requirement for power density when f is i .

3. The calculation of the power density or safe distance is:

- NOTE 1: The RF exposure evaluation is base on the far-field and the radiation exposure is over-estimated.
- NOTE 2: The maximum output power level is taken into account as a worst case for the purpose of the calculation of power density or safe distance.
- NOTE 3: The minimum antenna feed cable loss (assumed no cable loss) is taken into account as a worst case for the purpose of the calculation of power density or safe distance.
- NOTE 4: The maximum antenna radiation exposure orientation and maximum antenna gain is taken into account as a worst case for the purpose of the calculation of power density or safe distance.



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RF Source	Calculation
RF Source #1	$f = 2400 \text{ to } 2483.5 \text{ MHz}$ $S_{Limit,i} = 10 \text{ W/m}^2$ $P = 0.167 \text{ W} (= 22.22 \text{ dBm, measured max. for a peak value})$ $G = 2 (= 3 \text{ dBi})$ $\theta, \phi = \text{The worst condition is considered, i.e. the maximum } G \text{ is used.}$ $R > 0.2 \text{ m}$ $S_i < \frac{P \times G_{(\theta, \phi)}}{4 \times \pi \times R^2} = 0.66 \text{ W/m}^2$ $\frac{S_i}{S_{Limit,i}} < 0.066$
RF Source(s) Combination	$\sum_i \frac{S_i}{S_{Limit,i}} < 0.066 \text{ (Less than 1, so complied)}$

Person responsible for making this declaration:

Signature : 

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Position/Title : RF Engineer

Date : July 16, 2012