

Declaration of Electromagnetic Field Health Compliance

To whom it may concern,

As to the product **pRU01-B04** 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 following standards(s):

Nr.	Standard
1	47CFR FCC Part 1 (10-1-13 Edition)
2	RSS-102 (Issue4, March 2010)

The compliance is demonstrated based on the following calculation model assessment:

- 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.

- 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 .

- 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.

AWS Band:

RF Source	Calculation
RF Source #1	$f = 2110 \text{ to } 2155 \text{ MHz}$
	$S_{Limit,i} = 10 \text{ W/m}^2$
	$P = 0.316 \text{ W (=25 dBm) (rated power: 23dBm, tolerance: +/-2dB)}$
	$G_{(\theta,\phi)} = 2.51 (= 4 \text{ dBi) (Integrated antenna)}$
	$EIRP = P \times G_{(\theta,\phi)} = 0.79316 \text{ W}$
	$\theta, \phi = \text{The worst condition is considered, i.e. the max } G \text{ is used.}$
	$R \geq 0.25 \text{ m}$
	$S_i \leq \frac{P \times G_{(\theta,\phi)}}{4 \times \pi \times R^2} = 1.01 \text{ W/m}^2$
	$\frac{S_i}{S_{Limit,i}} \leq 0.101$

RF Source	Calculation
RF Source #1	$f = 2110 \text{ to } 2155 \text{ MHz}$
	$S_{Limit,i} = 10 \text{ W/m}^2$
	$P = 0.316 \text{ W (=25 dBm) (rated power: 23dBm, tolerance: +/-2dB)}$
	$G_{(\theta,\phi)} = 11.22 (= 10.5 \text{ dBi) (External antenna)}$
	$EIRP = P \times G_{(\theta,\phi)} = 3.54552 \text{ W}$
	$\theta, \phi = \text{The worst condition is considered, i.e. the max } G \text{ is used.}$
	$R \geq 0.25 \text{ m}$
	$S_i \leq \frac{P \times G_{(\theta,\phi)}}{4 \times \pi \times R^2} = 4.51 \text{ W/m}^2$
	$\frac{S_i}{S_{Limit,i}} \leq 0.451$

Integrated antenna:

AWS Band	$\sum_i \frac{S_i}{S_{Limit,i}} \leq 0.101 \text{ (Less than 1, so complied)}$
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External antenna:

AWS Band	$\sum_i \frac{S_i}{S_{Limit,i}} \leq 0.451 \text{ (Less than 1, so complied)}$
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Calculated safe distance: 0.25 m

Person responsible for making this declaration:

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