Declaration of Electromagnetic Field Health Compliance

To whom it may concern,

As to the product **RRU3804 1900** 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) & OET Bulletin 65
2	RSS-102 (Issue4, March 2010)

The compliance is demonstrated 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:

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

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.

RF Source	Calculation		
RF Source #1	f	=	1930 to 1990 MHz
	$S_{Limit,i}$	=	10 W/m^2
	P	=	63.24 W (= 48.01 dBm, measured max)

RF Source	Calculation		
	$G_{(\theta,\phi)}$	=	50.12 (= 17 dBi)
	$EIRP = P \times G_{(\theta,\phi)}$	=	3169.6 W (measured max.)
	θ, ϕ	=	The worst condition is considered, i.e. the max G is used.
	S_i	=	$\frac{P \times G_{(\theta,\phi)}}{4 \times \pi \times R^2}$ = 252.23 / R^2 W/m^2
	$\frac{S_i}{S_{Limit,i}}$	=	25.223 / R^2
RF Source(s) Combination	$\sum_i \frac{S_i}{S_{Limit,i}}$	=	25.223 / $R^2 \leq 1$
	R	≥	5 m (the minimum Safe Distance)

Beyond the specified distance/calculated safe distance:5 m

Person responsible for making this declaration:

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