Declaration of Electromagnetic Field Health Compliance for

RRU3832 LTE AWS Band

To whom it may concern,

As to the product **RRU3832** 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.
f = operating frequency.

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 for Individual Source

RF Source #1	f	=	2110 to 2155 MHz
	$S_{Limit,i}$	=	= 10 W/m ^{2}
	P , $G_{(\theta,\phi)}$	=	☒ $P \times G_{(\theta,\phi)}$: P (*) = 67.6 W (per port) 135.2 W (calculated, two ports) $G_{(\theta,\phi)}$ = 56.2 (=17.5 dBi) (*): The value is from: ☐ measured max (See relevant RF report), ☒ rated + declared tolerance, ☐ max allowed by RF standard. And, the transmission duty cycle is: ☒ ignored, ☐ used, that is: _____ % (for mode: _____).
	θ, ϕ	=	The worst condition is considered, i.e. the max G is used.
	S_i	=	$\frac{P \times G_{(\theta,\phi)}}{4 \times \pi} / R^2$ = 545.95 / R^2 W/m ^{2}
	$\frac{S_i}{S_{Limit,i}}$	=	54.6 / R^2
RF Sources	Calculation for Simultaneous Transmission Sources		
(Not applicable)	(Not applicable)		
Whole Product	Calculation for Whole Product		
Whole Product	$\frac{S}{S_{Limit}}$	=	54.6 / $R^2 \leq 1$
	R	≥	7.39 m (the minimum Safe Distance)
	NOTE: The result is the worst case of each individual source and simultaneous transmission sources (if applicable).		

Person responsible for making this declaration:

Li Guo

Li Guo
RF Engineer, EMC Lab
Reliability Laboratory of Huawei Technologies Co., Ltd.
September 2, 2014