



中国认可
国际互认
检测
TESTING
CNAS L0310



Declaration of Compliance for RF Exposure Evaluation

Product Name: Remote Radio Unit

Product Model: RRU3268

Applicant: Huawei Technologies Co., Ltd.

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To whom it may concern,

As to the product(s) involved in this document, we declare that they comply with the following standards(s):

- 47CFR FCC Part 1 & OET Bulletin 65

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:

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

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 .
- 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 (a short-name, e.g. GSM system)	f	= 2620 to 2690 MHz
	$S_{Limit,i}$	= 10 W/m ²
	$P, G_{(\theta, \phi)}$	☐ $EIRP(= P \times G_{(\theta, \phi)})$: $EIRP^{(*)} = \text{_____ W (= _____ dBm, all ports)}$

		☒ $P \times G_{(\theta,\phi)}$: $P^{(*)} = 100 \text{ W}$ (rated total 49dBm all ports, tolerance +/-1dB under extreme temperature) $G_{(\theta,\phi)} = 63.1 (=18 \text{ dBi})$ $(*)$: 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: <u>100</u> %.
	θ, ϕ	= The worst condition is considered, i.e. the max G is used.
	S_i	= $\frac{P \times G_{(\theta,\phi)}}{4 \times \pi R^2} = 502.13 / R^2 \text{ W/m}^2$
	$\frac{S_i}{S_{Limit,i}}$	= $50.213 / R^2$
Whole Product	Calculation for Whole Product	
Whole Product	$\frac{S}{S_{Limit}}$	= $50.213 / R^2 \leq 1$
	R	$\geq 7.09 \text{ m}$ (the minimum Safe Distance)
	NOTE: The result is the worst case of each individual source and simultaneous transmission sources (if applicable).	

Consequently, calculated safe distance showed above: 7.09m

Considering the lower RF field exposure levels and relevant research results collected to date by international organizations, there is no convincing scientific evidence that the RF signals from this product cause adverse effects on human health.

END