

Annex C – Declaration of RF Exposure Compliance for Exemption from Routine Evaluation Limits

COMPANY NUMBER:	26583
MODEL NUMBER:	AC1200 Whole Home Mesh Wi-Fi System
MANUFACTURER:	TP-Link Corporation Limited
IC CERTIFICATION NUMBER:	26583-E4RV2
HVIN:	Deco E4RV2

2.5.2 Exemption from Routine Evaluation Limits – RF Exposure Evaluation

RF exposure evaluation is required if the separation distance between the user and/or bystander and the device's radiating element is greater than 20 cm, except when the device operates as follows:

- below 20 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 1 W (adjusted for tune-up tolerance);
- at or above 20 MHz and below 48 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $4.49/f^{0.5}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 48 MHz and below 300 MHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 0.6 W (adjusted for tune-up tolerance);
- at or above 300 MHz and below 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than $1.31 \times 10^{-2} f^{0.6834}$ W (adjusted for tune-up tolerance), where f is in MHz;
- at or above 6 GHz and the source-based, time-averaged maximum e.i.r.p. of the device is equal to or less than 5 W (adjusted for tune-up tolerance).

e.i.r.p. calculation:

For 2.4G:

$$\text{Limit} = 1.31 \times 10^{-2} f^{0.6834} = 2.70 \text{ W}$$

$$f = 2437 \text{ MHz}$$

$$\text{e.i.r.p.} = 28.12 \text{ dBm} = 0.6486 \text{ W} < 2.70 \text{ W}$$

For 5GHz UNII-1 Non Beamforming:

$$\text{Limit} = 1.31 \times 10^{-2} f^{0.6834} = 4.54 \text{ W}$$

$$f = 5210 \text{ MHz}$$

$$\text{e.i.r.p.} = 22.66 \text{ dBm} = 0.1845 \text{ W} < 4.54 \text{ W}$$

For 5GHz UNII-3 Non Beamforming:

$$\text{Limit} = 1.31 \times 10^{-2} f^{0.6834} = 4.86 \text{ W}$$

$$f = 5745 \text{ MHz}$$

$$\text{e.i.r.p.} = 27.20 \text{ dBm} = 0.5248 \text{ W} < 4.86 \text{ W}$$

For 5GHz UNII-1 Beamforming:

$$\text{Limit} = 1.31 \times 10^{-2} f^{0.6834} = 4.54 \text{ W}$$

$$f = 5210 \text{ MHz}$$

$$\text{e.i.r.p.} = 22.97 \text{ dBm} = 0.1982 \text{ W} < 4.54 \text{ W}$$

For 5GHz UNII-3 Beamforming:

Limit= $1.31 \times 10^{-2} f^{0.6834}$ =4.86 W
f=5745MHz

e.i.r.p. = 26.44 dBm =0.4406 W < 4.86 W

For the max. simultaneous transmission MPE:

e.i.r.p. = e.i.r.p. (2.4G Max.) + e.i.r.p. (5G Max.) = 0.6486 W+0.5248 W =1.1734 W < 2.70 W

ATTESTATION: I attest that the radio communication apparatus meets the exemption from the routine evaluation limits in Section 2.5 of this standard; that the Technical Brief was prepared and the information contained therein is correct; that the device evaluation was performed or supervised by me; that applicable measurement methods and evaluation methodologies have been followed; and that the device meets the SAR and/or RF field strength limits of RSS-102(Issue 5, 2015).

Signature:

Rose . Liu

DATE: 2021-02-03

NAME: Rose Liu

TITLE: Supervisor

COMPANY: BTL Inc.

End of Test Report