Test Result of RF Exposure Evaluation

According to the KDB-447498 D01 V06, FCC 47CFR § 2.1091 the following RF exposure evaluation shall to demonstrate RF exposure compliance.

Friis transmission formula: Pd = (Pout*G)/(4*pi*r2)

Where

Pd = power density in mW/cm2, Pout = output power to antenna in mW;

G = gain of antenna in linear scale, Pi = 3.1416;

R = distance between observation point and center of the radiator in cm.

2.4G

ANT 1

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|-------------------|-----------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11b | 2412MHz | 1 5±1 | 16 | 39.81 | 0.02505 | 1.0 | Pass |
| 802.11g | 2412MHz | 13 ±1 | 14 | 25.12 | 0.01580 | 1.0 | Pass |
| 802.11n (HT20) | 2412MHz | 12 ±1 | 13 | 19.95 | 0.01255 | 1.0 | Pass |
| 802.11 n(HT40) | 2422MHz | 11 ±1 | 12 | 15.85 | 0.00997 | 1.0 | Pass |

ANT 2

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|-------------------|-----------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11b | 2412MHz | 1 4±1 | 15 | 31.62 | 0.01989 | 1.0 | Pass |
| 802.11g | 2412MHz | 12 ±1 | 13 | 19.95 | 0.01255 | 1.0 | Pass |
| 802.11n (HT20) | 2412MHz | 11 ±1 | 12 | 15.85 | 0.00997 | 1.0 | Pass |
| 802.11 n(HT40) | 2422MHz | 10 ±1 | 11 | 12.59 | 0.00792 | 1.0 | Pass |

5.2G ANT 3

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|----------|-----------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11a | 5180MHz | 15±1 | 16 | 39.81 | 0.02505 | 1.0 | Pass |
| 802.11n | 5180MHz | 11±1 | 12 | 15 05 | 0.00007 | 1.0 | Pass |
| (HT20) | STOUIVIEZ | 1111 | 12 | 15.85 | 0.00997 | | |
| 802.11 | 5190MHz | 40.14 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| n(HT40) | 5190MHZ | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5180MHz | 44.1.4 | 12 | 15.05 | 0.00007 | 1.0 | Pass |
| (VHT20) | STOUIVIEZ | 11±1 | 12 | 15.85 | 0.00997 | | |
| 802.11ac | 5400MU- | 40.1.4 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT40) | 5190MHz | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5040 MIL- | 40.14 | 44 | 12.50 | 0.00703 | 1.0 | Pass |
| (VHT80) | 5210 MHz | 10±1 | 11 | 12.59 | 0.00792 | | |

ANT4

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|----------|-----------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11a | 5180MHz | 1 4±1 | 15 | 31.62 | 0.01989 | 1.0 | Pass |
| 802.11n | 5180MHz | 1 0±1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| (HT20) | STOUIVIEZ | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11 | 5190MHz | 40.1.1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| n(HT40) | 3190IVITZ | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5400MU- | 40.1.1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT20) | 5180MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5400MU- | 40.1.1 | 11 | 12.50 | 0.00703 | 1.0 | Pass |
| (VHT40) | 5190MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5040 MIL | 40.1.1 | 44 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT80) | 5210 MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |

5.8G ANT3

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|----------|-----------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11a | 5745MHz | 15±1 | 16 | 39.81 | 0.02505 | 1.0 | Pass |
| 802.11n | 5745MHz | 11±1 | 12 | 15.05 | 0.00007 | 1.0 | Pass |
| (HT20) | 3/43IVITZ | 1111 | 12 | 15.85 | 0.00997 | | |
| 802.11 | 5755MJ- | 40.1.4 | 44 | 12.50 | 0.00702 | 1.0 | Pass |
| n(HT40) | 5755MHz | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5745MHz | 44.14 | 12 | 15.05 | 0.00007 | 1.0 | Pass |
| (VHT20) | 3/43IVITZ | 11±1 | 12 | 15.85 | 0.00997 | | |
| 802.11ac | 5755MJ- | 40.1.4 | 44 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT40) | 5755MHz | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5775 MIL- | 40.14 | 44 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT80) | 5775 MHz | 10±1 | 11 | 12.59 | 0.00792 | | |

ANT4

| | Channel | Target power | Max tune up | Max Output power | Power Density at | Limit | Result |
|----------|------------|--------------|----------------|------------------|------------------------------|-------|--------|
| | Frequency | W/ tolerance | power | to antenna (mW) | R=20cm (mW/cm ²) | (mW/c | |
| | (MHz) | (dBm) | tolerance(dBm) | | | m²) | |
| 802.11a | 5745MHz | 1 4±1 | 15 | 31.62 | 0.01989 | 1.0 | Pass |
| 802.11n | 5745MHz | 1 0±1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| (HT20) | 3/43IVITZ | 10±1 | 11 | 12.59 | 0.00792 | | |
| 802.11 | 5755MHz | 40.1.1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| n(HT40) | 37 33IVITZ | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5745NU I- | 40.1.1 | 11 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT20) | 5745MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | | 40.1.1 | 11 | 12.50 | 0.00703 | 1.0 | Pass |
| (VHT40) | 5755MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |
| 802.11ac | 5775 MIL | 40.1.1 | 44 | 12.50 | 0.00702 | 1.0 | Pass |
| (VHT80) | 5775 MHz | 1 0±1 | 11 | 12.59 | 0.00792 | | |

Simultaneous transmission MPE According to KDB447498 for Transmitters used in mobile exposure conditions for simultaneous transmission operations; \sum of MPE ratios \leq 1.0

| ANT 1+ANT2+ ANT 3+ANT4 | (The worst) |
|------------------------|-------------|
| | VILLE MOISE |

| Power | Power | Power | Power | Power Density | Limit | Result |
|------------|------------|------------|------------|---------------|----------|--------|
| Density at | Density at | Density at | Density at | at R=20cm | (mW/cm2) | |
| R=20cm | R=20cm | R=20cm | R=20cm | (mW/cm2) | | |
| (mW/cm2) | (mW/cm2) | (mW/cm2) | (mW/cm2) | ANT 1+ANT 2 | | |
| ANT 1 | ANT 2 | ANT3 | ANT 4 | +ANT3+ANT4 | | |
| 0.02505 | 0.01989 | 0.02505 | 0.01989 | 0.08988 | 1.0 | Pass |