

## RF Exposure evaluation

Applicant Data: SIEMENS AG  
Östliche Rheinbrückenstr. 50  
76187 Karlsruhe  
Germany

Product Data: Industrial WLAN Access Point / Client  
SCALANCE W700 / MSAX  
MSAX-W1-RJ-E2-NO  
Siemens

WLAN 2,4 GHz and 5 GHz

mobile 20cm

General Population/Uncontrolled

FCC ID: LYHMSAXV1

IC: 267AA-MSAXV1

| Standards                                                                                                                                      |
|------------------------------------------------------------------------------------------------------------------------------------------------|
| OET Bulletin 65 Edition 97-01 August 1997                                                                                                      |
| RSS-102 Issue 5 – March 2015                                                                                                                   |
| -----                                                                                                                                          |
| FCC CFR 47, Part 2.1091: Radiofrequency radiation exposure evaluation: mobile devices.                                                         |
| FCC CFR 47, Part 2.1307: Actions that may have a significant environmental effect, for which Environmental Assessments (EAs) must be prepared. |
| FCC CFR 47, Part 2.1310: Radiofrequency radiation exposure limits.                                                                             |

## RF Exposure evaluation

### Maximum Permissible Exposure

As specified in Chapter e(1) of 47 CFR Part 1.1310 – Limits for Maximum Permissible Exposure (MPE)

Table (i) - Limits for Occupational/ Controlled Exposure

| Frequency range (MHz) | Power density (mW / cm <sup>2</sup> ) |
|-----------------------|---------------------------------------|
| 300 – 1500            | f/300                                 |
| 1500 - 100000         | 5.0                                   |

Table (ii) – Limits for General Population/ Uncontrolled Exposure

| Frequency range (MHz) | Power density (mW / cm <sup>2</sup> ) |
|-----------------------|---------------------------------------|
| 300 – 1500            | f/1500                                |
| 1500 - 100000         | 1.0                                   |

As specified in Chapter 4 of RSS-102, Issue 5 – Exposure Limits

Table 4 - RF Field Strength Limits for Devices Used by the General Public (Uncontrolled Environment)

| Frequency range (MHz) | Power density (W / m <sup>2</sup> ) | Power density (mW / cm <sup>2</sup> )     |
|-----------------------|-------------------------------------|-------------------------------------------|
| 300-6000              | 0.02619 f <sup>0.6834</sup>         | mW/cm <sup>2</sup> =W/m <sup>2</sup> *0.1 |
| 6000-150000           | 10                                  | 1.0                                       |

Table 6 – RF Field Strength Limits for Controlled Use Devices (Controlled Environment)

| Frequency range (MHz) | Power density (W / m <sup>2</sup> ) | Power density (mW / cm <sup>2</sup> )     |
|-----------------------|-------------------------------------|-------------------------------------------|
| 100-6000              | 0.6455 f <sup>0.5</sup>             | mW/cm <sup>2</sup> =W/m <sup>2</sup> *0.1 |
| 6000-150000           | 50                                  | 1.0                                       |

## RF Exposure evaluation

### Calculations

Equation OET bulletin 65, page 18, edition 97-01:

$$S = P * G / ( 4 * \pi * R^2 )$$

$$R = \sqrt{ ( P * G / S_{lim} * 4 * \pi ) }$$

$$G = S_{lim} * 4 * \pi * R^2 / P$$

Where:

S = power density (mW/cm<sup>2</sup>)

P = power input to the antenna (mW)

G = power gain of the antenna (mW)

R = distance to the centre of radiation of the antenna (cm)

S<sub>lim</sub> = FCC / IC Limit (mW/cm<sup>2</sup>)

### Simultaneous Transmission Considerations

The calculation below is used to consider situations in which simultaneous exposure to fields of different frequencies occur. The calculation is performed by the sum of each relative exposure for each equipment according to the following criteria.

$$\sum_{1}^N \frac{S_{eqn}}{S_{Limn}} = \frac{S_{eq1}}{S_{Lim1}} + \frac{S_{eq2}}{S_{Lim2}} + \dots + \frac{S_{eqN}}{S_{LimN}} \leq 1$$

Where:

S<sub>eq</sub> = S = power density (mW/cm<sup>2</sup>)

S<sub>lim</sub> = FCC / IC Limit (mW/cm<sup>2</sup>)

## RF Exposure evaluation

### Assessment

For FCC

|                                   |                   |                 |                    | G                           | tested                         | P                             |                           | P*G                      | S                            | Sim                | Seq / Sim                    |                              |
|-----------------------------------|-------------------|-----------------|--------------------|-----------------------------|--------------------------------|-------------------------------|---------------------------|--------------------------|------------------------------|--------------------|------------------------------|------------------------------|
| for Antennas (dBi)                | Operational Bands | Frequency (MHz) | Antenna Gain (dBi) | Antenna Gain -numeric- (mW) | Output Power -conducted- (dBm) | Output Power -conducted- (mW) | Output power (EIRP) (dBm) | Output Power (EIRP) (mW) | Power Density value (mW/cm²) | FCC Limit (mW/cm²) | Relative Power Density value | Margin to FCC Limit (mW/cm²) |
| <6                                | 802.11ax20        | 2412 - 2462     | 6                  | 3.9811                      | 19.00                          | 79.43                         | 25.00                     | 316.23                   | 0.0629                       | 1.0000             | 0.0629                       | 0.9371                       |
| <6                                | 802.11b           | 2412 - 2462     | 6                  | 3.9811                      | 16.80                          | 47.86                         | 22.80                     | 190.55                   | 0.0379                       | 1.0000             | 0.0379                       | 0.9621                       |
| <6                                | 802.11g           | 2412 - 2462     | 6                  | 3.9811                      | 19.60                          | 91.20                         | 25.60                     | 363.08                   | 0.0722                       | 1.0000             | 0.0722                       | 0.9278                       |
| <6                                | 802.11n20         | 2412 - 2462     | 6                  | 3.9811                      | 19.20                          | 83.18                         | 25.20                     | 331.13                   | 0.0659                       | 1.0000             | 0.0659                       | 0.9341                       |
| <6                                | 802.11ax40        | 2422 - 2452     | 6                  | 3.9811                      | 17.40                          | 54.95                         | 23.40                     | 218.78                   | 0.0435                       | 1.0000             | 0.0435                       | 0.9565                       |
| <6                                | 802.11n40         | 2422 - 2452     | 6                  | 3.9811                      | 17.70                          | 58.88                         | 23.70                     | 234.42                   | 0.0466                       | 1.0000             | 0.0466                       | 0.9534                       |
| <9                                | 802.11ax20        | 2412 - 2462     | 9                  | 7.9433                      | 17.00                          | 50.12                         | 26.00                     | 398.11                   | 0.0792                       | 1.0000             | 0.0792                       | 0.9208                       |
| <9                                | 802.11b           | 2412 - 2462     | 9                  | 7.9433                      | 14.60                          | 28.84                         | 23.60                     | 229.09                   | 0.0456                       | 1.0000             | 0.0456                       | 0.9544                       |
| <9                                | 802.11g           | 2412 - 2462     | 9                  | 7.9433                      | 17.70                          | 58.88                         | 26.70                     | 467.74                   | 0.0931                       | 1.0000             | 0.0931                       | 0.9069                       |
| <9                                | 802.11n20         | 2412 - 2462     | 9                  | 7.9433                      | 17.20                          | 52.48                         | 26.20                     | 416.87                   | 0.0829                       | 1.0000             | 0.0829                       | 0.9171                       |
| <9                                | 802.11ax40        | 2422 - 2452     | 9                  | 7.9433                      | 15.40                          | 34.67                         | 24.40                     | 275.42                   | 0.0548                       | 1.0000             | 0.0548                       | 0.9452                       |
| <9                                | 802.11n40         | 2422 - 2452     | 9                  | 7.9433                      | 15.80                          | 38.02                         | 24.80                     | 302.00                   | 0.0601                       | 1.0000             | 0.0601                       | 0.9399                       |
| <14                               | 802.11ax20        | 2412 - 2462     | 14                 | 25.1189                     | 13.10                          | 20.42                         | 27.10                     | 512.86                   | 0.1020                       | 1.0000             | 0.1020                       | 0.8980                       |
| <14                               | 802.11b           | 2412 - 2462     | 14                 | 25.1189                     | 10.70                          | 11.75                         | 24.70                     | 295.12                   | 0.0587                       | 1.0000             | 0.0587                       | 0.9413                       |
| <14                               | 802.11g           | 2412 - 2462     | 14                 | 25.1189                     | 13.70                          | 23.44                         | 27.70                     | 588.84                   | 0.1171                       | 1.0000             | 0.1171                       | 0.8829                       |
| <14                               | 802.11n20         | 2412 - 2462     | 14                 | 25.1189                     | 13.20                          | 20.89                         | 27.20                     | 524.81                   | 0.1044                       | 1.0000             | 0.1044                       | 0.8956                       |
| <14                               | 802.11ax40        | 2422 - 2452     | 14                 | 25.1189                     | 12.50                          | 17.78                         | 26.50                     | 446.68                   | 0.0889                       | 1.0000             | 0.0889                       | 0.9111                       |
| <14                               | 802.11n40         | 2422 - 2452     | 14                 | 25.1189                     | 12.80                          | 19.05                         | 26.80                     | 478.63                   | 0.0952                       | 1.0000             | 0.0952                       | 0.9048                       |
| <8                                | B1-802.11a        | 5180 - 5240     | 8                  | 6.3096                      | 20.70                          | 117.49                        | 28.70                     | 741.31                   | 0.1475                       | 1.0000             | 0.1475                       | 0.8525                       |
| <8                                | B3-802.11a        | 5745 - 5825     | 8                  | 6.3096                      | 22.40                          | 173.78                        | 30.40                     | 1096.48                  | 0.2181                       | 1.0000             | 0.2181                       | 0.7819                       |
| <8                                | B1-802.11n20      | 5180 - 5240     | 8                  | 6.3096                      | 20.40                          | 109.65                        | 28.40                     | 691.83                   | 0.1376                       | 1.0000             | 0.1376                       | 0.8624                       |
| <8                                | B3-802.11n20      | 5745 - 5825     | 8                  | 6.3096                      | 22.00                          | 158.49                        | 30.00                     | 1000.00                  | 0.1989                       | 1.0000             | 0.1989                       | 0.8011                       |
| <8                                | B1-802.11n40      | 5180 - 5240     | 8                  | 6.3096                      | 21.80                          | 151.36                        | 29.80                     | 954.99                   | 0.1900                       | 1.0000             | 0.1900                       | 0.8100                       |
| <8                                | B3-802.11n40      | 5745 - 5825     | 8                  | 6.3096                      | 23.10                          | 204.17                        | 31.10                     | 1288.25                  | 0.2563                       | 1.0000             | 0.2563                       | 0.7437                       |
| <8                                | B1-802.11ac20     | 5180 - 5240     | 8                  | 6.3096                      | 20.40                          | 109.65                        | 28.40                     | 691.83                   | 0.1376                       | 1.0000             | 0.1376                       | 0.8624                       |
| <8                                | B3-802.11ac20     | 5745 - 5825     | 8                  | 6.3096                      | 22.20                          | 165.96                        | 30.20                     | 1047.13                  | 0.2083                       | 1.0000             | 0.2083                       | 0.7917                       |
| <8                                | B1-802.11ac40     | 5180 - 5240     | 8                  | 6.3096                      | 21.80                          | 151.36                        | 29.80                     | 954.99                   | 0.1900                       | 1.0000             | 0.1900                       | 0.8100                       |
| <8                                | B3-802.11ac40     | 5745 - 5825     | 8                  | 6.3096                      | 23.20                          | 208.93                        | 31.20                     | 1318.26                  | 0.2623                       | 1.0000             | 0.2623                       | 0.7377                       |
| <8                                | B1-802.11ac80     | 5210            | 8                  | 6.3096                      | 20.40                          | 109.65                        | 28.40                     | 691.83                   | 0.1376                       | 1.0000             | 0.1376                       | 0.8624                       |
| <8                                | B3-802.11ac80     | 5775            | 8                  | 6.3096                      | 22.60                          | 181.97                        | 30.60                     | 1148.15                  | 0.2284                       | 1.0000             | 0.2284                       | 0.7716                       |
| <8                                | B1-802.11ax20     | 5180 - 5240     | 8                  | 6.3096                      | 20.10                          | 102.33                        | 28.10                     | 645.65                   | 0.1284                       | 1.0000             | 0.1284                       | 0.8716                       |
| <8                                | B3-802.11ax20     | 5745 - 5825     | 8                  | 6.3096                      | 21.80                          | 151.36                        | 29.80                     | 954.99                   | 0.1900                       | 1.0000             | 0.1900                       | 0.8100                       |
| <8                                | B1-802.11ax40     | 5180 - 5240     | 8                  | 6.3096                      | 21.50                          | 141.25                        | 29.50                     | 891.25                   | 0.1773                       | 1.0000             | 0.1773                       | 0.8227                       |
| <8                                | B3-802.11ax40     | 5745 - 5825     | 8                  | 6.3096                      | 22.70                          | 186.21                        | 30.70                     | 1174.90                  | 0.2337                       | 1.0000             | 0.2337                       | 0.7663                       |
| <8                                | B1-802.11ax80     | 5210            | 8                  | 6.3096                      | 20.20                          | 104.71                        | 28.20                     | 660.69                   | 0.1314                       | 1.0000             | 0.1314                       | 0.8686                       |
| <8                                | B3-802.11ax80     | 5775            | 8                  | 6.3096                      | 22.30                          | 169.82                        | 30.30                     | 1071.52                  | 0.2132                       | 1.0000             | 0.2132                       | 0.7868                       |
| <9                                | B1-802.11a        | 5180-5240       | 9                  | 7.9433                      | 19.70                          | 93.33                         | 28.70                     | 741.31                   | 0.1475                       | 1.0000             | 0.1475                       | 0.8525                       |
| <9                                | B3-802.11a        | 5470-5725       | 9                  | 7.9433                      | 22.40                          | 173.78                        | 31.40                     | 1380.38                  | 0.2746                       | 1.0000             | 0.2746                       | 0.7254                       |
| <9                                | B1-802.11n20      | 5180-5240       | 9                  | 7.9433                      | 19.30                          | 85.11                         | 28.30                     | 676.08                   | 0.1345                       | 1.0000             | 0.1345                       | 0.8655                       |
| <9                                | B3-802.11n20      | 5470-5725       | 9                  | 7.9433                      | 22.00                          | 158.49                        | 31.00                     | 1258.93                  | 0.2505                       | 1.0000             | 0.2505                       | 0.7495                       |
| <9                                | B1-802.11n40      | 5180-5240       | 9                  | 7.9433                      | 20.90                          | 123.03                        | 29.90                     | 977.24                   | 0.1944                       | 1.0000             | 0.1944                       | 0.8056                       |
| <9                                | B3-802.11n40      | 5470-5727       | 9                  | 7.9433                      | 23.10                          | 204.17                        | 32.10                     | 1621.81                  | 0.3226                       | 1.0000             | 0.3226                       | 0.6774                       |
| <9                                | B1-802.11ac20     | 5180-5240       | 9                  | 7.9433                      | 19.90                          | 97.72                         | 28.90                     | 776.25                   | 0.1544                       | 1.0000             | 0.1544                       | 0.8456                       |
| <9                                | B3-802.11ac20     | 5470-5728       | 9                  | 7.9433                      | 22.20                          | 165.96                        | 31.20                     | 1318.26                  | 0.2623                       | 1.0000             | 0.2623                       | 0.7377                       |
| <9                                | B1-802.11ac40     | 5180-5240       | 9                  | 7.9433                      | 20.90                          | 123.03                        | 29.90                     | 977.24                   | 0.1944                       | 1.0000             | 0.1944                       | 0.8056                       |
| <9                                | B3-802.11ac40     | 5470-5729       | 9                  | 7.9433                      | 23.20                          | 208.93                        | 32.20                     | 1659.59                  | 0.3302                       | 1.0000             | 0.3302                       | 0.6698                       |
| <9                                | B1-802.11ac80     | 5210            | 9                  | 7.9433                      | 16.70                          | 46.77                         | 25.70                     | 371.54                   | 0.0739                       | 1.0000             | 0.0739                       | 0.9261                       |
| <9                                | B3-802.11ac80     | 5775            | 9                  | 7.9433                      | 26.00                          | 398.11                        | 35.00                     | 3162.28                  | 0.6291                       | 1.0000             | 0.6291                       | 0.3709                       |
| <9                                | B1-802.11ax20     | 5150 - 5250     | 9                  | 7.9433                      | 19.20                          | 83.18                         | 28.20                     | 660.69                   | 0.1314                       | 1.0000             | 0.1314                       | 0.8686                       |
| <9                                | B3-802.11ax20     | 5725 - 5850     | 9                  | 7.9433                      | 21.80                          | 151.36                        | 30.80                     | 1202.26                  | 0.2392                       | 1.0000             | 0.2392                       | 0.7608                       |
| <9                                | B1-802.11ax40     | 5150 - 5250     | 9                  | 7.9433                      | 20.40                          | 109.65                        | 29.40                     | 870.96                   | 0.1733                       | 1.0000             | 0.1733                       | 0.8267                       |
| <9                                | B3-802.11ax40     | 5725 - 5850     | 9                  | 7.9433                      | 22.70                          | 186.21                        | 31.70                     | 1479.11                  | 0.2943                       | 1.0000             | 0.2943                       | 0.7057                       |
| <9                                | B1-802.11ax80     | 5210            | 9                  | 7.9433                      | 16.50                          | 44.67                         | 25.50                     | 354.81                   | 0.0706                       | 1.0000             | 0.0706                       | 0.9294                       |
| <9                                | B3-802.11ax80     | 5775            | 9                  | 7.9433                      | 20.50                          | 112.20                        | 29.50                     | 891.25                   | 0.1773                       | 1.0000             | 0.1773                       | 0.8227                       |
| Distance to Antenna (R) in cm: 20 |                   |                 |                    |                             |                                |                               |                           |                          |                              |                    |                              |                              |

Simultaneous (if applicable):

|               | WLAN 2,4 GHz | WLAN 5 GHz |
|---------------|--------------|------------|
| (Seq / Slim ) | 0.1171       | 0.6291     |
| Sum           | 0.7463       |            |
| Limit         | 1            |            |
| Conclusion    | passed       |            |

Note 1: only worst-case values are listed in the table above

Note 2: the duty cycle correction factor is already included in the measurement values

## RF Exposure evaluation

For ISED

|                    |                   |                 |                    | G                           | tested                         | P                             |                           | P*G                      | S                                         | Slim                           | Seq / Slim                   |                                          |
|--------------------|-------------------|-----------------|--------------------|-----------------------------|--------------------------------|-------------------------------|---------------------------|--------------------------|-------------------------------------------|--------------------------------|------------------------------|------------------------------------------|
| for Antennas (dBi) | Operational Bands | Frequency (MHz) | Antenna Gain (dBi) | Antenna Gain -numeric- (mW) | Output Power -conducted- (dBm) | Output Power -conducted- (mW) | Output Power (EIRP) (dBm) | Output Power (EIRP) (mW) | Power Density value (mW/cm <sup>2</sup> ) | IC Limit (mW/cm <sup>2</sup> ) | Relative Power Density value | Margin to IC Limit (mW/cm <sup>2</sup> ) |
| <6                 | 802.11ax20        | 2412            | 6                  | 3,9811                      | 19,00                          | 79,43                         | 25,00                     | 316,23                   | 0,0629                                    | 0,5366                         | 0,1172                       | 0,4737                                   |
| <6                 | 802.11b           | 2412            | 6                  | 3,9811                      | 16,80                          | 47,86                         | 22,80                     | 190,55                   | 0,0379                                    | 0,5366                         | 0,0706                       | 0,4987                                   |
| <6                 | 802.11g           | 2412            | 6                  | 3,9811                      | 19,60                          | 91,20                         | 25,60                     | 363,08                   | 0,0722                                    | 0,5366                         | 0,1346                       | 0,4644                                   |
| <6                 | 802.11n20         | 2412            | 6                  | 3,9811                      | 19,20                          | 83,18                         | 25,20                     | 331,13                   | 0,0659                                    | 0,5366                         | 0,1228                       | 0,4707                                   |
| <6                 | 802.11ax40        | 2412            | 6                  | 3,9811                      | 17,40                          | 54,95                         | 23,40                     | 218,78                   | 0,0435                                    | 0,5366                         | 0,0811                       | 0,4931                                   |
| <6                 | 802.11n40         | 2412            | 6                  | 3,9811                      | 17,70                          | 58,88                         | 23,70                     | 234,42                   | 0,0466                                    | 0,5366                         | 0,0869                       | 0,4900                                   |
| <9                 | 802.11ax20        | 2412            | 9                  | 7,9433                      | 17,00                          | 50,12                         | 26,00                     | 398,11                   | 0,0792                                    | 0,5366                         | 0,1476                       | 0,4574                                   |
| <9                 | 802.11b           | 2412            | 9                  | 7,9433                      | 14,60                          | 28,84                         | 23,60                     | 229,09                   | 0,0456                                    | 0,5366                         | 0,0849                       | 0,4910                                   |
| <9                 | 802.11g           | 2412            | 9                  | 7,9433                      | 17,70                          | 58,88                         | 26,70                     | 467,74                   | 0,0931                                    | 0,5366                         | 0,1734                       | 0,4435                                   |
| <9                 | 802.11n20         | 2412            | 9                  | 7,9433                      | 17,20                          | 52,48                         | 26,20                     | 416,87                   | 0,0829                                    | 0,5366                         | 0,1546                       | 0,4537                                   |
| <9                 | 802.11ax40        | 2412            | 9                  | 7,9433                      | 15,40                          | 34,67                         | 24,40                     | 275,42                   | 0,0548                                    | 0,5366                         | 0,1021                       | 0,4818                                   |
| <9                 | 802.11n40         | 2412            | 9                  | 7,9433                      | 15,80                          | 38,02                         | 24,80                     | 302,00                   | 0,0601                                    | 0,5366                         | 0,1120                       | 0,4765                                   |
| <14                | 802.11ax20        | 2412            | 14                 | 25,1189                     | 13,10                          | 20,42                         | 27,10                     | 512,66                   | 0,1020                                    | 0,5366                         | 0,1901                       | 0,4346                                   |
| <14                | 802.11b           | 2412            | 14                 | 25,1189                     | 10,70                          | 11,75                         | 24,70                     | 295,12                   | 0,0587                                    | 0,5366                         | 0,1094                       | 0,4779                                   |
| <14                | 802.11g           | 2412            | 14                 | 25,1189                     | 13,70                          | 23,44                         | 27,70                     | 588,84                   | 0,1171                                    | 0,5366                         | 0,2183                       | 0,4195                                   |
| <14                | 802.11n20         | 2412            | 14                 | 25,1189                     | 13,20                          | 20,89                         | 27,20                     | 524,81                   | 0,1044                                    | 0,5366                         | 0,1946                       | 0,4322                                   |
| <14                | 802.11ax40        | 2412            | 14                 | 25,1189                     | 12,50                          | 17,78                         | 26,50                     | 446,68                   | 0,0889                                    | 0,5366                         | 0,1656                       | 0,4477                                   |
| <14                | 802.11n40         | 2412            | 14                 | 25,1189                     | 12,80                          | 19,05                         | 26,80                     | 478,63                   | 0,0952                                    | 0,5366                         | 0,1775                       | 0,4414                                   |
| <8                 | B1-802.11a        | 5180            | 8                  | 6,3096                      | 12,90                          | 19,50                         | 20,90                     | 123,03                   | 0,0245                                    | 0,9047                         | 0,0271                       | 0,8802                                   |
| <8                 | B3-802.11a        | 5745            | 8                  | 6,3096                      | 22,40                          | 173,78                        | 30,40                     | 1096,48                  | 0,2181                                    | 0,9710                         | 0,2246                       | 0,7529                                   |
| <8                 | B1-802.11n20      | 5180            | 8                  | 6,3096                      | 12,50                          | 17,78                         | 20,50                     | 112,20                   | 0,0223                                    | 0,9047                         | 0,0247                       | 0,8824                                   |
| <8                 | B3-802.11n20      | 5745            | 8                  | 6,3096                      | 22,00                          | 158,49                        | 30,00                     | 1000,00                  | 0,1989                                    | 0,9710                         | 0,2049                       | 0,7721                                   |
| <8                 | B1-802.11n40      | 5180            | 8                  | 6,3096                      | 13,30                          | 21,38                         | 21,30                     | 134,90                   | 0,0268                                    | 0,9047                         | 0,0297                       | 0,8779                                   |
| <8                 | B3-802.11n40      | 5745            | 8                  | 6,3096                      | 23,10                          | 204,17                        | 31,10                     | 1288,25                  | 0,2563                                    | 0,9710                         | 0,2639                       | 0,7147                                   |
| <8                 | B1-802.11ac20     | 5180            | 8                  | 6,3096                      | 12,60                          | 18,20                         | 20,60                     | 114,82                   | 0,0228                                    | 0,9047                         | 0,0252                       | 0,8819                                   |
| <8                 | B3-802.11ac20     | 5745            | 8                  | 6,3096                      | 22,20                          | 165,96                        | 30,20                     | 1047,13                  | 0,2083                                    | 0,9710                         | 0,2145                       | 0,7627                                   |
| <8                 | B1-802.11ac40     | 5180            | 8                  | 6,3096                      | 13,30                          | 21,38                         | 21,30                     | 134,90                   | 0,0268                                    | 0,9047                         | 0,0297                       | 0,8779                                   |
| <8                 | B3-802.11ac40     | 5745            | 8                  | 6,3096                      | 23,20                          | 208,93                        | 31,20                     | 1318,26                  | 0,2623                                    | 0,9710                         | 0,2701                       | 0,7088                                   |
| <8                 | B1-802.11ac80     | 5180            | 8                  | 6,3096                      | 12,90                          | 19,50                         | 20,90                     | 123,03                   | 0,0245                                    | 0,9047                         | 0,0271                       | 0,8802                                   |
| <8                 | B3-802.11ac80     | 5745            | 8                  | 6,3096                      | 22,60                          | 181,97                        | 30,60                     | 1148,15                  | 0,2284                                    | 0,9710                         | 0,2352                       | 0,7426                                   |
| <8                 | B1-802.11ax20     | 5180            | 8                  | 6,3096                      | 12,40                          | 17,38                         | 20,40                     | 109,65                   | 0,0218                                    | 0,9047                         | 0,0241                       | 0,8829                                   |
| <8                 | B3-802.11ax20     | 5745            | 8                  | 6,3096                      | 21,80                          | 151,36                        | 29,80                     | 954,99                   | 0,1900                                    | 0,9710                         | 0,1957                       | 0,7810                                   |
| <8                 | B1-802.11ax40     | 5180            | 8                  | 6,3096                      | 12,80                          | 19,05                         | 20,80                     | 120,23                   | 0,0239                                    | 0,9047                         | 0,0264                       | 0,8808                                   |
| <8                 | B3-802.11ax40     | 5745            | 8                  | 6,3096                      | 22,70                          | 186,21                        | 30,70                     | 1174,90                  | 0,2337                                    | 0,9710                         | 0,2407                       | 0,7373                                   |
| <8                 | B1-802.11ax80     | 5180            | 8                  | 6,3096                      | 12,80                          | 19,20                         | 20,60                     | 114,82                   | 0,0228                                    | 0,9047                         | 0,0252                       | 0,8819                                   |
| <8                 | B3-802.11ax80     | 5745            | 8                  | 6,3096                      | 22,30                          | 169,82                        | 30,30                     | 1071,52                  | 0,2132                                    | 0,9710                         | 0,2195                       | 0,7579                                   |
| <9                 | B1-802.11a        | 5180            | 9                  | 7,9433                      | 11,90                          | 15,49                         | 20,90                     | 123,03                   | 0,0245                                    | 0,9047                         | 0,0271                       | 0,8802                                   |
| <9                 | B3-802.11a        | 5745            | 9                  | 7,9433                      | 22,40                          | 173,78                        | 31,40                     | 1380,39                  | 0,2746                                    | 0,9710                         | 0,2828                       | 0,6964                                   |
| <9                 | B1-802.11n20      | 5180            | 9                  | 7,9433                      | 11,60                          | 14,45                         | 20,60                     | 114,82                   | 0,0228                                    | 0,9047                         | 0,0252                       | 0,8819                                   |
| <9                 | B3-802.11n20      | 5745            | 9                  | 7,9433                      | 22,00                          | 158,49                        | 31,00                     | 1258,93                  | 0,2505                                    | 0,9710                         | 0,2579                       | 0,7206                                   |
| <9                 | B1-802.11n40      | 5180            | 9                  | 7,9433                      | 12,20                          | 16,60                         | 21,20                     | 131,83                   | 0,0262                                    | 0,9047                         | 0,0290                       | 0,8785                                   |
| <9                 | B3-802.11n40      | 5745            | 9                  | 7,9433                      | 23,10                          | 204,17                        | 32,10                     | 1621,81                  | 0,3226                                    | 0,9710                         | 0,3323                       | 0,6484                                   |
| <9                 | B1-802.11ac20     | 5180            | 9                  | 7,9433                      | 11,60                          | 14,45                         | 20,60                     | 114,82                   | 0,0228                                    | 0,9047                         | 0,0252                       | 0,8819                                   |
| <9                 | B3-802.11ac20     | 5745            | 9                  | 7,9433                      | 22,20                          | 165,96                        | 31,20                     | 1318,26                  | 0,2623                                    | 0,9710                         | 0,2701                       | 0,7088                                   |
| <9                 | B1-802.11ac40     | 5180            | 9                  | 7,9433                      | 12,20                          | 16,60                         | 21,20                     | 131,83                   | 0,0262                                    | 0,9047                         | 0,0290                       | 0,8785                                   |
| <9                 | B3-802.11ac40     | 5745            | 9                  | 7,9433                      | 23,20                          | 208,93                        | 32,20                     | 1659,59                  | 0,3302                                    | 0,9710                         | 0,3400                       | 0,6409                                   |
| <9                 | B1-802.11ac80     | 5180            | 9                  | 7,9433                      | 11,80                          | 15,14                         | 20,80                     | 120,23                   | 0,0239                                    | 0,9047                         | 0,0264                       | 0,8808                                   |
| <9                 | B3-802.11ac80     | 5745            | 9                  | 7,9433                      | 26,00                          | 398,11                        | 35,00                     | 3162,28                  | 0,6291                                    | 0,9710                         | 0,6479                       | 0,3419                                   |
| <9                 | B1-802.11ax20     | 5180            | 9                  | 7,9433                      | 11,50                          | 14,13                         | 20,50                     | 112,20                   | 0,0223                                    | 0,9047                         | 0,0247                       | 0,8824                                   |
| <9                 | B3-802.11ax20     | 5745            | 9                  | 7,9433                      | 21,80                          | 151,36                        | 30,80                     | 1202,26                  | 0,2392                                    | 0,9710                         | 0,2463                       | 0,7319                                   |
| <9                 | B1-802.11ax40     | 5180            | 9                  | 7,9433                      | 11,80                          | 15,14                         | 20,80                     | 120,23                   | 0,0239                                    | 0,9047                         | 0,0264                       | 0,8808                                   |
| <9                 | B3-802.11ax40     | 5745            | 9                  | 7,9433                      | 22,70                          | 186,21                        | 31,70                     | 1479,11                  | 0,2943                                    | 0,9710                         | 0,3030                       | 0,6768                                   |
| <9                 | B1-802.11ax80     | 5180            | 9                  | 7,9433                      | 11,60                          | 14,45                         | 20,60                     | 114,82                   | 0,0228                                    | 0,9047                         | 0,0252                       | 0,8819                                   |
| <9                 | B3-802.11ax80     | 5745            | 9                  | 7,9433                      | 20,50                          | 112,20                        | 29,50                     | 891,25                   | 0,1773                                    | 0,9710                         | 0,1826                       | 0,7937                                   |

Distance to Antenna (R) in cm: 20

Simultaneous (if applicable):

|              | WLAN 2,4 GHz | WLAN 5 GHz |
|--------------|--------------|------------|
| (Seq / Slim) | 0.2183       | 0.6479     |
| Sum          | 0.8662       |            |
| Limit        | 1            |            |
| Conclusion   | passed       |            |

Note 1: only worst-case values are listed in the table above

Note 2: the duty cycle correction factor is already included in the measurement values