## **Product Service GmbH**

## **Maximal Permissible Exposure**

FCC IC: T7V1315 IC: 216Q-1315

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radio frequency energy in excess limit for maximum permissible exposure.

In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 and RSS-102 this device has been defined as a mobile device whereby a distance of 0.2 m, normally can be maintained between the user and the device.

The following calculation presents the exposure value against the limits for occupational / controlled use.

Operating mode: Test Mode 1: DH5 (worst case)

| name  |                          |   | nature | value               | log val       | ue              |
|---|--------------------------|---|--------|---------------------|---------------|-----------------|
|   |                          |   |        |                     |               |                 |
| max conducted power   |                          |   | 10,47  | mW                  | 10,20         | dBm             |
| max Antenna gain  |                          |   | 1,35   |                     | 1,30          | dBi             |
| calculated radiated power                                   |                          | EIRP  | 14,13  | mW                  | 11,50         | dBm             |
| measured radiated power                                     |                          | EIRP  | 14,13  | mW                  | 11,50         | dBm             |
|   |                          |   |        |                     |               |                 |
| Tx frequency  | 2402,000                 | MHz   |        |                     |               |                 |
| duty cycle factor   |                          |   |        |                     |               |                 |
| duty cycle factor   | 10log(dwell time/100 ms) | declared  | 47,0%  |                     | -3,28         | dB              |
| max source-based time-averaged power                        |                          |   |        |                     |               |                 |
| conducted power   |                          |   | 4,92   | mW                  | 6,92          | dB              |
| calculated radiated power                                   |                          | EIRP  | 6,64   | mW                  | 8,22          | dB              |
| measured radiated power                                     |                          | EIRP  | 6,64   | mW                  | 8,22          | dB              |
| MPE   |                          |   |        |                     |               |                 |
| $S = \frac{PG}{4\pi R^2}$                                   |                          | calculated with max source-based time-averaged power measured conducted power |        |                     |               |                 |
| 4 πR <sup>2</sup>   |                          | r [om]  | 20     | 2.5                 | 1.5           | 0.72            |
|   |                          | <b>r</b> [cm] <b>S</b> [mW/cm <sup>2</sup> ]                                  | 0,001  | 2,5<br><b>0,085</b> |               | <b>0,73</b> 1,0 |
| Limit general population                                    |                          | [mW/cm <sup>2</sup> ]   | 1,0    | 0,065               | 0,233         | 1,0             |
| Limit general population                                    |                          | [IIIVV/CIII-]   | 1,0    | for f =             | 2402,000      |                 |
| population  |                          | [mW/cm <sup>2</sup> ]   | 5,0    |                     | , , , , , , , | MHz             |
| $S = \frac{EIRP}{4\pi R^2} = \frac{1.64 ERP}{4\pi R^2} = .$ | 0.41 ERP                 | calculated with max source-based time-averaged power measured radiated power  |        |                     |               |                 |
|   | πR <sup>2</sup>          | <b>r</b> [cm]   | 20     | 2,5                 | 1,5           | 0,73            |
|   |                          | S [mW/cm <sup>2</sup> ]   | 0,001  | 0,085               | 0,235         | 1,0             |