

|                                                                                                                                                                                                                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------------------|------------------------------------------|
| <b>Prüfbericht-Nr.:</b><br><i>Test report no.:</i>                                                                                                                                                                                                                                                                                                                                                                                                         | <b>IN22Y7T9 001</b>                                                                                                                                                                                              | <b>Auftrags-Nr.:</b><br><i>Order no.:</i>                  | <b>146733111 010</b>                                                | Seite 1 von 7<br>Page 1 of 7             |
| <b>Kunden-Referenz-Nr.:</b><br><i>Client reference no.:</i>                                                                                                                                                                                                                                                                                                                                                                                                | <b>2455720</b>                                                                                                                                                                                                   | <b>Auftragsdatum:</b><br><i>Order date:</i>                | <b>2022-10-18</b>                                                   |                                          |
| <b>Auftraggeber:</b><br><i>Client:</i>                                                                                                                                                                                                                                                                                                                                                                                                                     | DS Services of America, Inc. dba Primo Water North America<br>1150 Assembly Drive, Ste 800<br>Tampa, Florida 33607                                                                                               |                                                            |                                                                     |                                          |
| <b>Prüfgegenstand:</b><br><i>Test item:</i>                                                                                                                                                                                                                                                                                                                                                                                                                | Pureflo                                                                                                                                                                                                          | <b>Product Type</b>                                        | Wi-Fi BT Module                                                     |                                          |
| <b>Bezeichnung.:</b><br><i>Identification .:</i>                                                                                                                                                                                                                                                                                                                                                                                                           | STFP2KHK2RO<br>STFP2KHK1CA                                                                                                                                                                                       |                                                            |                                                                     |                                          |
| <b>Auftrags-Inhalt:</b><br><i>Order content:</i>                                                                                                                                                                                                                                                                                                                                                                                                           | Maximum Permissible Exposure                                                                                                                                                                                     |                                                            |                                                                     |                                          |
| <b>Prüfgrundlage:</b><br><i>Test specification:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | FCC 1.1310 and RSS 102, Issue 5<br>KDB 447498 D01                                                                                                                                                                |                                                            |                                                                     |                                          |
| <b>Wareneingangsdatum:</b><br><i>Date of sample receipt:</i>                                                                                                                                                                                                                                                                                                                                                                                               | 2022-11-04                                                                                                                                                                                                       |                                                            |                                                                     |                                          |
| <b>Prüfmuster-Nr &amp; Serien-Nr.:</b><br><i>Test sample no &amp; serial no.:</i>                                                                                                                                                                                                                                                                                                                                                                          | A003366433-001<br>A003415430-001                                                                                                                                                                                 |                                                            |                                                                     |                                          |
| <b>Prüfzeitraum:</b><br><i>Testing period:</i>                                                                                                                                                                                                                                                                                                                                                                                                             | 2022-11-04 - 2022-11-28                                                                                                                                                                                          |                                                            |                                                                     |                                          |
| <b>Ort der Prüfung:</b><br><i>Place of testing:</i>                                                                                                                                                                                                                                                                                                                                                                                                        | Wireless laboratory,<br>Bangalore                                                                                                                                                                                |                                                            |                                                                     |                                          |
| <b>Prüflaboratorium:</b><br><i>Testing laboratory:</i>                                                                                                                                                                                                                                                                                                                                                                                                     | TÜV Rheinland (India)<br>Pvt.Ltd., 27/B, 2nd Cross,<br>Electronic City Phase1<br>Bangalore -560 100, India<br><br>FCC Test site registration<br>number: 496599<br>ISED Test site registration<br>number: 3466E-1 |                                                            |                                                                     |                                          |
| <b>Prüfergebnis*:</b><br><i>Test result*:</i>                                                                                                                                                                                                                                                                                                                                                                                                              | Pass                                                                                                                                                                                                             |                                                            |                                                                     |                                          |
| <b>geprüft von:</b><br><i>tested by:</i>                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>genehmigt von:</b><br><i>authorized by:</i>                                                                                                                                                                   |                                                            |                                                                     |                                          |
| <b>Datum:</b><br><i>Date:</i> 2022-12-15                                                                                                                                                                                                                                                                                                                                                                                                                   | <b>Ausstellatum:</b><br><i>Issue date:</i> 2023-03-24                                                                                                                                                            |                                                            |                                                                     |                                          |
| <b>Stellung / Position:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                | <b>Likhithesh M D</b><br>Senior Engineer                                                                                                                                                                         | <b>Stellung / Position:</b>                                | <b>Madhu K.N</b><br>Senior Engineer                                 |                                          |
| <b>Sonstiges / Other:</b>                                                                                                                                                                                                                                                                                                                                                                                                                                  | <b>FCC ID: 2A9TV-STFP2KHK1RO</b>                                                                                                                                                                                 |                                                            |                                                                     |                                          |
| <b>Zustand des Prüfgegenstandes bei Anlieferung:</b><br><i>Condition of the test item at delivery:</i>                                                                                                                                                                                                                                                                                                                                                     | <b>Prüfmuster vollständig und unbeschädigt</b><br><b>Test item complete and undamaged</b>                                                                                                                        |                                                            |                                                                     |                                          |
| * Legende:                                                                                                                                                                                                                                                                                                                                                                                                                                                 | 1 = sehr gut<br>P(ass) = entspricht o.g. Prüfgrundlage(n)                                                                                                                                                        | 2 = gut<br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 3 = befriedigend<br>F(ail) = entspricht nicht o.g. Prüfgrundlage(n) | 4 = ausreichend<br>N/A = nicht anwendbar |
| * Legend:                                                                                                                                                                                                                                                                                                                                                                                                                                                  | 1 = very good<br>P(ass) = passed a.m. test specification(s)                                                                                                                                                      | 2 = good<br>F(ail) = failed a.m. test specification(s)     | 3 = satisfactory<br>F(ail) = failed a.m. test specification(s)      | 4 = sufficient<br>N/A = not applicable   |
| 5 = mangelhaft<br>N/T = nicht getestet<br>5 = poor<br>N/T = not tested                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |
| <b>Dieser Prüfbericht bezieht sich nur auf das o.g. Prüfmuster und darf ohne Genehmigung der Prüfstelle nicht auszugsweise vervielfältigt werden. Dieser Bericht berechtigt nicht zur Verwendung eines Prüfzeichens.</b><br><i>This test report only relates to the a. m. test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any test mark.</i> |                                                                                                                                                                                                                  |                                                            |                                                                     |                                          |

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 2 von 7  
Page 2 of 7

# 1 RF Exposure Report

## 1.1 RF Exposure Measurement

The limit for Maximum Permissible Exposure (MPE) specified in FCC 1.1310 and RSS 102, Issue 5, Section 2.5.2 is followed. The gain of the antennas used in the product is extracted from the Antenna data sheets provided and also the maximum total power input to the antenna is measured. Through the Friis transmission formula and the maximum gain of the antenna, we can calculate the distance, away from the product, where the limit of MPE is reached.

Although the Friis Transmission formula is far field assumption, the calculated result of that is an over-prediction for near field power density. It is taken as worst case to specify the safety range.

## 1.2 RF Exposure Limit

According to FCC 1.1310: The criteria listed in the following table shall be used to evaluate the environmental impact of the human exposure to radio-frequency (RF) radiation as specified in 1.1307 (b) showed in Table 1. And as per the RSS 102, Issue 5, Section 2.5.2 the MPE limits mentioned in Table 2.

**Table 1: Limits for Maximum Permissible Exposure (MPE) as per FCC**

| Frequency Range<br>(MHz)                              | Electric Field<br>Strength (V/m) | Magnetic Field<br>Strength (A/m) | Power Density<br>(mW/cm²) |
|-------------------------------------------------------|----------------------------------|----------------------------------|---------------------------|
| Limits for Occupational / controlled Exposures        |                                  |                                  |                           |
| 300 - 1500                                            | --                               | --                               | F/300                     |
| 1500 – 100000                                         | --                               | --                               | 5.0                       |
| Limits for General population / Uncontrolled Exposure |                                  |                                  |                           |
| 300 - 1500                                            | --                               | --                               | F/1500                    |
| 1500 – 100000                                         | --                               | --                               | 1.0                       |

F or  $f$  = Frequency in MHz

**Table 2: Limits for Maximum Permissible Exposure (MPE) as per ISED Canada**

| Frequency Range<br>(MHz)                              | Electric Field<br>(V/m rms) | Magnetic Field<br>(A/m rms) | Power Density<br>(W/m²) |
|-------------------------------------------------------|-----------------------------|-----------------------------|-------------------------|
| Limits for Occupational / controlled Exposures        |                             |                             |                         |
| 100-6000                                              | $15.60 f^{0.25}$            | $0.04138 f^{0.25}$          | $0.6455 f^{0.5}$        |
| Limits for General population / Uncontrolled Exposure |                             |                             |                         |
| 300-6000                                              | $3.142 f^{0.3417}$          | $0.008335 f^{0.3417}$       | $0.02619 f^{0.6834}$    |

F or  $f$  = Frequency in MHz

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 3 von 7  
Page 3 of 7

### 1.2.1 Friss Formula

Friss Transmission Formula:  $P_d = (P_{out} * G) / (4 * \pi * r^2)$

Where

$P_d$  = power density in mW/cm<sup>2</sup>

$P_{out}$  = output power to antenna in mW

$G$  = gain of antenna in linear scale

$\pi$  = 3.1416

$R$  = Distance between observation point and the center of radiator in cm

If we know the maximum gain of the antenna and the total output power to the antenna, through calculation, we will know MPE value at distance 20cm.

### 1.2.2 EUT Operation condition

EUT was enabled to transmit and receive at lowest, middle and highest channels.

### 1.2.3 Classification

The antenna of this product, under normal use condition, is at least 20cm away from the body of the user.

Warning statement to the user for keeping at least 20cm or more separation distance from the antenna should be included in the User manual. So, this device is classified as fixed device.

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 4 von 7  
Page 4 of 7

**Test Results**

**1. Protocol: LTE Band-4\_Cell Bandwidth-1.4MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1710.7                  | 21.92                      | 1                     | 195.8844                                          | 0.0697                              | 1                               |

**2. Protocol: LTE Band-4\_Cell Bandwidth-3MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1711.5                  | 22.90                      | 1                     | 245.4708                                          | 0.0874                              | 1                               |

**3. Protocol: LTE Band-4\_Cell Bandwidth-5MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1712.5                  | 22.52                      | 1                     | 224.9054                                          | 0.0801                              | 1                               |

**4. Protocol: LTE Band-4\_Cell Bandwidth-10MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1750                    | 22.58                      | 1                     | 228.0342                                          | 0.0812                              | 1                               |

**5. Protocol: LTE Band-4\_Cell Bandwidth-15MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1717.5                  | 22.60                      | 1                     | 229.0867                                          | 0.0816                              | 1                               |

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 5 von 7  
Page 5 of 7

**6. Protocol: LTE Band-4\_Cell Bandwith-20MHz**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1720                    | 22.63                      | 1                     | 230.6747                                          | 0.0821                              | 1                               |

**7. Protocol: LTE Band-12\_Cell Bandwith-1.4MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 699.7                   | 22.16                      | 1                     | 207.0141                                          | 0.0449                              | 0.46                            |

**8. Protocol: LTE Band-12\_Cell Bandwith-3MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 714.5                   | 22.82                      | 1                     | 240.9905                                          | 0.0523                              | 0.47                            |

**9. Protocol: LTE Band-12\_Cell Bandwith-5MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 707.5                   | 22.91                      | 1                     | 246.0367                                          | 0.0534                              | 0.47                            |

**10. Protocol: LTE Band-12\_Cell Bandwith-10MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 711                     | 22.89                      | 1                     | 244.9063                                          | 0.0531                              | 0.47                            |

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 6 von 7  
Page 6 of 7

**11. Protocol: LTE Band-85\_Cell Bandwith-5MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 713.5                   | 22.96                      | 1                     | 248.8857                                          | 0.0540                              | 0.47                            |

**12. Protocol: LTE Band-85\_Cell Bandwith-10MHz**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 711                     | 22.92                      | 1                     | 246.6039                                          | 0.0535                              | 0.47                            |

**13. Protocol: GSM 850MHz\_GPRS(GMSK)**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 848.8                   | 32.96                      | 1                     | 2488.8573                                         | 0.5404                              | 0.56                            |

**14. Protocol: GSM 850MHz\_EGPRS(8PSK)**

| Antenna Gain (dBd) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 0.38               | 1.0914                       | 848.8                   | 32.93                      | 1                     | 2471.7241                                         | 0.5366                              | 0.56                            |

**15. Protocol: GSM 1900MHz\_GPRS(GMSK)**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1850.2                  | 28.78                      | 1                     | 950.6047                                          | 0.3386                              | 1                               |

**Prüfbericht - Nr.:**  
Test Report No.:

**Reference Test Report No:**  
**IN22Y7T9 001**

Seite 7 von 7  
Page 7 of 7

**16. Protocol: GSM 1900MHz\_EGPRS(8PSK)**

| Antenna Gain (dBi) | Antenna gain in linear scale | Channel Frequency (MHz) | Maximum output power (dBm) | Tune up Value in (dB) | Maximum output power including Tune-up value (mW) | Power Density (mW/cm <sup>2</sup> ) | FCC Limit (mW/cm <sup>2</sup> ) |
|--------------------|------------------------------|-------------------------|----------------------------|-----------------------|---------------------------------------------------|-------------------------------------|---------------------------------|
| 2.53               | 1.7906                       | 1850.2                  | 28.80                      | 1                     | 954.9925                                          | 0.3401                              | 1                               |

**Note:**

1. Antenna gain details are taken from the antenna data sheet(LTE & GSM PCB Chip Antenna)
2. Manufacturer has declared the tune-up value as  $\pm 1$  dB is considered in MPE calculation.

**\*\*\*\*\* END OF TEST REPORT\*\*\*\*\***