Test report no.: 17-1-0172601T25a-C1

Issue Date: 25/03/2019



# Annex B C1 DASY5 measurement results

### 1. LTE result

- LTE Band 2 1RB for Body and limbs
- LTE Band 4 1RB for Body and limbs
- LTE Band 5 1RB for Body and limbs
- LTE Band 12 1RB for Body
- LTE Band 12 1RB for limbs

Date: 17.07.2018

Test Laboratory: Cetecom Essen

### Rosenberger US FDD2 Channel 19193 1RB Left side 0mm

### **DUT: Rosenberger; Type: Terminal; Serial: tbd**

Communication System: UID 0, LTE-FDD BW 1.4MHZ (0); Communication System Band: Band 2, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 1909.3 MHz; Medium parameters used (interpolated): f = 1909.3 MHz;  $\sigma = 1.56$  S/m;  $\epsilon_r = 54.112$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### **DASY** Configuration:

- Probe: ES3DV3 SN3340; ConvF(4.89, 4.89, 4.89); Calibrated: 14.02.2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1233; Calibrated: 16.02.2017
- Phantom: Twin-SAM right V5.0 (30deg); Type: QD 000 P40 CD; Serial: 1640
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

### **Configuration/Left side/Area Scan (4x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.509 W/kg

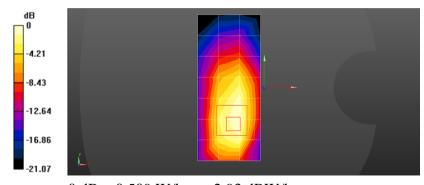
## **Configuration/Left side/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 12.76 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.945 W/kg

### SAR(1 g) = 0.488 W/kg; SAR(10 g) = 0.242 W/kg

Maximum value of SAR (measured) = 0.638 W/kg



0 dB = 0.509 W/kg = -2.93 dBW/kg

Date: 17.07.2018

Test Laboratory: Cetecom Essen

### Rosenberger US FDD4 Channel 19957 1RB Left side 0mm

### **DUT: Rosenberger; Type: Terminal; Serial: tbd**

Communication System: UID 0, LTE-FDD BW 1.4MHZ (0); Communication System Band: Band 4, E-UTRA/FDD (1710.0 - 1755.0 MHz); Frequency: 1710 MHz; Medium parameters used: f = 1710 MHz;  $\sigma = 1.425$  S/m;  $\epsilon_r = 54.968$ ;  $\rho = 1000$  kg/m<sup>3</sup> Phantom section: Flat Section

### DASY Configuration:

- Probe: ES3DV3 SN3340; ConvF(5.03, 5.03, 5.03); Calibrated: 14.02.2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1233; Calibrated: 16.02.2017
- Phantom: Twin-SAM right V5.0 (30deg); Type: QD 000 P40 CD; Serial: 1640
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

**Configuration/Left side/Area Scan (4x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.923 W/kg

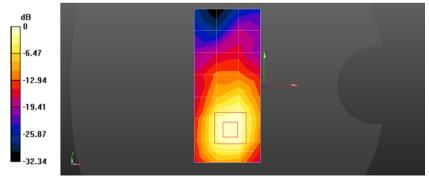
**Configuration/Left side/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 6.187 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 1.75 W/kg

SAR(1 g) = 0.996 W/kg; SAR(10 g) = 0.488 W/kg

Maximum value of SAR (measured) = 1.28 W/kg



0 dB = 0.923 W/kg = -0.35 dBW/kg

Date: 16.07.2018

Test Laboratory: Cetecom Essen

### Rosenberger US FDDV Channel 20525 1RB Back side 0mm

### **DUT: Rosenberger; Type: Terminal; Serial: tbd**

Communication System: UID 0, LTE-FDD BW 1.4MHZ (0); Communication System Band: Band 5, E-UTRA/FDD (824.0 - 849.0 MHz); Frequency: 836.5 MHz; Medium parameters used (interpolated): f = 836.5 MHz;  $\sigma = 0.988$  S/m;  $\epsilon_r = 54.688$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### **DASY** Configuration:

- Probe: ES3DV3 SN3340; ConvF(6.24, 6.24, 6.24); Calibrated: 14.02.2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1233; Calibrated: 16.02.2017
- Phantom: Twin-SAM right V5.0 (30deg); Type: QD 000 P40 CD; Serial: 1640
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

### **Configuration/Back side/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.117 W/kg

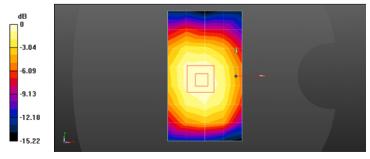
### **Configuration/Back side/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 10.95 V/m; Power Drift = 0.16 dB

Peak SAR (extrapolated) = 0.149 W/kg

### SAR(1 g) = 0.110 W/kg; SAR(10 g) = 0.077 W/kg

Maximum value of SAR (measured) = 0.124 W/kg



0 dB = 0.117 W/kg = -9.31 dBW/kg

Date: 16.07.2018

Test Laboratory: Cetecom Essen

### RosenbergerUS FDD12 Channel 23095 1RB Back side 0mm

### **DUT: Rosenberger; Type: Terminal; Serial: tbd**

Communication System: UID 0, LTE-FDD BW 1.4MHZ (0); Communication System Band: Band 12, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 707.5 MHz; Medium parameters used (interpolated): f = 707.5 MHz;  $\sigma = 0.941$  S/m;  $\epsilon_r = 55.712$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### **DASY** Configuration:

- Probe: ES3DV3 SN3340; ConvF(6.47, 6.47, 6.47); Calibrated: 14.02.2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1233; Calibrated: 16.02.2017
- Phantom: Twin-SAM right V5.0 (30deg); Type: QD 000 P40 CD; Serial: 1640
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

## **Configuration/Back side/Area Scan (5x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.220 W/kg

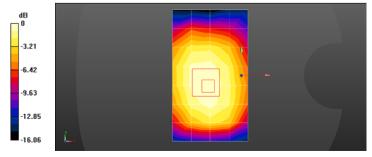
## **Configuration/Back side/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 14.61 V/m; Power Drift = 0.04 dB

Peak SAR (extrapolated) = 0.259 W/kg

SAR(1 g) = 0.192 W/kg; SAR(10 g) = 0.136 W/kg

Maximum value of SAR (measured) = 0.219 W/kg



0 dB = 0.220 W/kg = -6.57 dBW/kg

Date: 16.07.2018

Test Laboratory: Cetecom Essen

### Rosenberger US FDD12 Channel 23095 1RB Left side 0mm

### **DUT: Rosenberger; Type: Terminal; Serial: tbd**

Communication System: UID 0, LTE-FDD BW 1.4MHZ (0); Communication System Band: Band 12, E-UTRA/FDD (1850.0 - 1910.0 MHz); Frequency: 707.5 MHz; Medium parameters used (interpolated): f = 707.5 MHz;  $\sigma = 0.951$  S/m;  $\epsilon_r = 55.959$ ;  $\rho = 1000$  kg/m<sup>3</sup>

Phantom section: Flat Section

### **DASY** Configuration:

- Probe: ES3DV3 SN3340; ConvF(6.47, 6.47, 6.47); Calibrated: 14.02.2018;
- Sensor-Surface: 3mm (Mechanical Surface Detection), z = 2.0, 32.0
- Electronics: DAE4 Sn1233; Calibrated: 16.02.2017
- Phantom: Twin-SAM right V5.0 (30deg); Type: QD 000 P40 CD; Serial: 1640
- DASY52 52.8.8(1258); SEMCAD X 14.6.10(7373)

## **Configuration/Left side/Area Scan (4x8x1):** Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (measured) = 0.224 W/kg

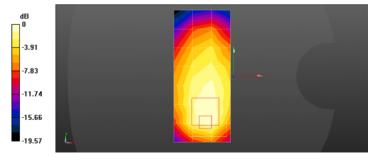
## **Configuration/Left side/Zoom Scan (7x7x9)/Cube 0:** Measurement grid: dx=5mm, dy=5mm, dz=4mm

Reference Value = 12.48 V/m; Power Drift = 0.06 dB

Peak SAR (extrapolated) = 0.546 W/kg

### SAR(1 g) = 0.204 W/kg; SAR(10 g) = 0.116 W/kg

Maximum value of SAR (measured) = 0.263 W/kg



0 dB = 0.224 W/kg = -6.51 dBW/kg