

## Appendix C - Highest Measurement Plots



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/8 01\_WLAN 2.4 GHz\_802.11b\_Ch1\_Bottom Face\_0 mm\_ANT Main DUT: TP3402Z

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2412 MHz;Duty Cycle: 1:1.016 Medium parameters used: f = 2412 MHz;  $\sigma$  = 1.75 S/m;  $\epsilon_r$  = 39.49;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(7.28, 7.28, 7.28) @ 2412 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (71x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 1.59 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm
Reference Value = 25.98 V/m; Power Drift = 0.03 dB
Peak SAR (extrapolated) = 2.10 W/kg
SAR(1 g) = 0.825 W/kg; SAR(10 g) = 0.375 W/kg
Smallest distance from peaks to all points 3 dB below = 7.2 mm
Ratio of SAR at M2 to SAR at M1 = 37.3%
Maximum value of SAR (measured) = 1.51 W/kg



0 dB = 1.51 W/kg = 1.79 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/8 02\_WLAN 2.4 GHz\_802.11b\_Ch6\_Bottom Face\_0 mm\_ANT Aux DUT: TP3402Z

Communication System: UID 0, IEEE 802.11b (0); Frequency: 2437 MHz;Duty Cycle: 1:1.015 Medium parameters used (interpolated): f = 2437 MHz;  $\sigma$  = 1.777 S/m;  $\epsilon_r$  = 39.394;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(7.28, 7.28, 7.28) @ 2437 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (61x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 1.87 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 21.66 V/m; Power Drift = -0.12 dB Peak SAR (extrapolated) = 2.14 W/kg SAR(1 g) = 0.861 W/kg; SAR(10 g) = 0.386 W/kg Smallest distance from peaks to all points 3 dB below = 8.1 mm Ratio of SAR at M2 to SAR at M1 = 40.2% Maximum value of SAR (measured) = 1.57 W/kg



0 dB = 1.57 W/kg = 1.96 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/8 03\_Bluetooth\_GFSK\_Ch78\_Bottom Face\_0 mm\_ANT Aux DUT: TP3402Z

Communication System: UID 0, Bluetooth 3.0 (0); Frequency: 2480 MHz;Duty Cycle: 1:1.292 Medium parameters used: f = 2480 MHz;  $\sigma$  = 1.823 S/m;  $\epsilon_r$  = 39.23;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(7.28, 7.28, 7.28) @ 2480 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (61x71x1):** Interpolated grid: dx=1.200 mm, dy=1.200 mm Maximum value of SAR (interpolated) = 0.253 W/kg

Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm Reference Value = 9.120 V/m; Power Drift = -0.09 dB Peak SAR (extrapolated) = 0.294 W/kg SAR(1 g) = 0.113 W/kg; SAR(10 g) = 0.049 W/kg Smallest distance from peaks to all points 3 dB below = 7.3 mm Ratio of SAR at M2 to SAR at M1 = 38.9% Maximum value of SAR (measured) = 0.207 W/kg



<sup>0</sup> dB = 0.207 W/kg = -6.84 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/9 04\_WLAN 5 GHz\_802.11ac VHT160\_Ch50\_Bottom Face\_0 mm\_ANT Main DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT160 (0); Frequency: 5250 MHz;Duty Cycle: 1:1.019 Medium parameters used: f = 5250 MHz;  $\sigma$  = 4.701 S/m;  $\epsilon_r$  = 36.608;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(5.04, 5.04, 5.04) @ 5250 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (81x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 2.29 W/kg

Zoom Scan (9x9x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 13.43 V/m; Power Drift = -0.05 dB Peak SAR (extrapolated) = 3.73 W/kg SAR(1 g) = 0.843 W/kg; SAR(10 g) = 0.288 W/kg Smallest distance from peaks to all points 3 dB below = 6.8 mm Ratio of SAR at M2 to SAR at M1 = 60.1% Maximum value of SAR (measured) = 2.04 W/kg







Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/9 05\_WLAN 5 GHz\_802.11ac VHT80\_Ch58\_Bottom Face\_0 mm\_ANT Aux DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5290 MHz;Duty Cycle: 1:1.014 Medium parameters used: f = 5290 MHz;  $\sigma$  = 4.736 S/m;  $\epsilon_r$  = 36.566;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(5.04, 5.04, 5.04) @ 5290 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (71x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 1.98 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm
Reference Value = 15.45 V/m; Power Drift = -0.16 dB
Peak SAR (extrapolated) = 3.39 W/kg
SAR(1 g) = 0.816 W/kg; SAR(10 g) = 0.267 W/kg
Smallest distance from peaks to all points 3 dB below = 5.4 mm
Ratio of SAR at M2 to SAR at M1 = 62.6%
Maximum value of SAR (measured) = 1.95 W/kg



0 dB = 1.95 W/kg = 2.90 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/9 06\_WLAN 5 GHz\_802.11ac VHT80\_Ch138\_Bottom Face\_0 mm\_ANT Main DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5690 MHz;Duty Cycle: 1:1.013 Medium parameters used: f = 5690 MHz;  $\sigma$  = 5.241 S/m;  $\epsilon_r$  = 35.817;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(4.64, 4.64, 4.64) @ 5690 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (81x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 2.28 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 14.29 V/m; Power Drift = -0.01 dB Peak SAR (extrapolated) = 4.98 W/kg SAR(1 g) = 0.972 W/kg; SAR(10 g) = 0.308 W/kg Smallest distance from peaks to all points 3 dB below = 6.4 mm Ratio of SAR at M2 to SAR at M1 = 57.2% Maximum value of SAR (measured) = 2.53 W/kg



0 dB = 2.53 W/kg = 4.03 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/9 07\_WLAN 5 GHz\_802.11ac VHT80\_Ch138\_Bottom Face\_0 mm\_ANT Aux DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5690 MHz;Duty Cycle: 1:1.014 Medium parameters used: f = 5690 MHz;  $\sigma$  = 5.241 S/m;  $\epsilon_r$  = 35.817;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(4.64, 4.64, 4.64) @ 5690 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (71x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 1.73 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 13.52 V/m; Power Drift = -0.03 dB Peak SAR (extrapolated) = 3.25 W/kg SAR(1 g) = 0.706 W/kg; SAR(10 g) = 0.227 W/kg Smallest distance from peaks to all points 3 dB below = 6.8 mm Ratio of SAR at M2 to SAR at M1 = 59.3% Maximum value of SAR (measured) = 1.83 W/kg



0 dB = 1.83 W/kg = 2.62 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/10 08\_WLAN 5 GHz\_802.11ac VHT80\_Ch155\_Bottom Face\_0 mm\_ANT Main DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5775 MHz;Duty Cycle: 1:1.013 Medium parameters used: f = 5775 MHz;  $\sigma$  = 5.276 S/m;  $\varepsilon_r$  = 35.883;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(4.64, 4.64, 4.64) @ 5775 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (81x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 2.34 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 14.05 V/m; Power Drift = -0.13 dB Peak SAR (extrapolated) = 4.94 W/kg SAR(1 g) = 0.970 W/kg; SAR(10 g) = 0.306 W/kg Smallest distance from peaks to all points 3 dB below = 7.2 mm Ratio of SAR at M2 to SAR at M1 = 57.4% Maximum value of SAR (measured) = 2.57 W/kg



<sup>0</sup> dB = 2.57 W/kg = 4.10 dBW/kg



Test Laboratory: A Test Lab Techno Corp. Date: 2022/2/10 09\_WLAN 5 GHz\_802.11ac VHT80\_Ch155\_Bottom Face\_0 mm\_ANT Aux DUT: TP3402Z

Communication System: UID 0, IEEE 802.11ac(5GHz)VHT80 (0); Frequency: 5775 MHz;Duty Cycle: 1:1.014 Medium parameters used: f = 5775 MHz;  $\sigma$  = 5.276 S/m;  $\epsilon_r$  = 35.883;  $\rho$  = 1000 kg/m<sup>3</sup> Phantom section: Flat Section Measurement Standard: DASY5 (IEEE/IEC/ANSI C63.19-2007) DASY5.2 Configuration:

- Area Scan setting Find Secondary Maximum Within: 2.0dB and with a peak SAR value greater than 0.5 W/Kg
- Probe: EX3DV4 SN3977; ConvF(4.64, 4.64, 4.64) @ 5775 MHz; Calibrated: 2021/7/26
- Sensor-Surface: 1.4mm (Mechanical Surface Detection)
- Electronics: DAE4 Sn779; Calibrated: 2021/7/30
- Phantom: ELI V4.0; Type: QD OVA 001 BB; Serial: 1036
- Measurement SW: DASY52, Version 52.10 (4); SEMCAD X Version 14.6.14 (7501)

**Area Scan (71x91x1):** Interpolated grid: dx=1.000 mm, dy=1.000 mm Maximum value of SAR (interpolated) = 1.97 W/kg

Zoom Scan (8x8x7)/Cube 0: Measurement grid: dx=4mm, dy=4mm, dz=1.4mm Reference Value = 14.14 V/m; Power Drift = -0.06 dB
Peak SAR (extrapolated) = 3.67 W/kg
SAR(1 g) = 0.752 W/kg; SAR(10 g) = 0.242 W/kg
Smallest distance from peaks to all points 3 dB below = 7.4 mm
Ratio of SAR at M2 to SAR at M1 = 57.9%
Maximum value of SAR (measured) = 1.98 W/kg



0 dB = 1.98 W/kg = 2.97 dBW/kg