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To:	ATCB	Fax:	-	
Attention:	Timothy R Johnson	Phone:	-	
From:	EMC Technologies Pty. Ltd.	No of pages:	9	
EMC Ref:	M040122	Date:	9 <sup>th</sup> March 2004	
Subject:	ATCB-Query-3-response			

Q1. While your conclusion regarding the LCD displays appears logical in certain cases, we are not aware of any published official interpretation from the FCC regarding this issue. Please provide a copy of this interpretation for our review. Please note that we have seen LCD displays with/without metal backings or different circuitry, which can affect the results of SAR. While similar construction around the antenna area (including metal) may be reasonable for your conclusion, information regarding the construction around the antennas (i.e. internal photos comparing these areas and/or detailed explanations of the metallic component differences around the antennas, etc.) has not been provided to us.

An additional SAR scan was performed for the worst-case configuration of the ST5011 (10.4" screen) and the SAR level was 0.643mW/g for a 1g cube of tissue. See plot 4 for details.

- Q3. Since it is likely that only a small difference will be seen due to the retest due to the lowest measurement point, and the fact that any difference noted is not likely to cause non-compliance due to the low SAR value obtained, we will go ahead and issue the grant under the following conditions:
  - a) Because of FCC requirements, please note that we will still need the retest information. Therefore, please provide the results of your retest as soon as possible. Please note that a complete retest is not deemed necessary; only the worse case positions. However, we must have this information within the next 14 days to properly update the filing and adjust grant if necessary.
  - b) Further detail in support of issue 1 above is provided.

#### **Summary of Retest**

As shown in the following table the highest re-measured SAR level for the ST5010 host was 0.544mW/g for a 1g cube of tissue. This was measured with the lowest probe measuring point of 3.9mm.

The retest of the Ocampa Host model ST5011 with the 10.4" screen showed the highest SAR to be 0.643mW/g for a 1g cube of tissue.

Plot Number	Test Configuration	SAR 1g (mW/g)
1	Arm-Held - DSSS - Ant Aux - Extended Battery CH#11	0.544
2	Arm-Held - DSSS - Ant Aux - CH#11	0.478
3	Tablet Position – DSSS – Ant Main – CH#11	0.252
4	Arm-Held – DSSS – Ant Aux – 10.4 Inch screen CH#11	0.643

File Name: Arm-Held DSSS 2.45 Ghz Antenna AUX Extended Battery 04-03-04.da4

DUT: Fujitsu Tablet Ocampa2 with Calexico2 11bg Module; Type: WM3B2200BG; Serial: 005681463ADC55373103

- \* Communication System: DSSS 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1
- \* Medium: Body 2450 MHz; ( $\sigma = 1.97633 \text{ mho/m}$ ,  $\epsilon_r = 51.2212$ ,  $\rho = 1000 \text{ kg/m}^3$ )
- Electronics: DAE3 Sn442; Probe: ET3DV6 SN1380; ConvF(4.5, 4.5, 4.5)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 11 Test/Area Scan (81x61x1): Measurement grid: dx=20mm, dy=20mm

Reference Value = 15.6 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.414 mW/g

Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

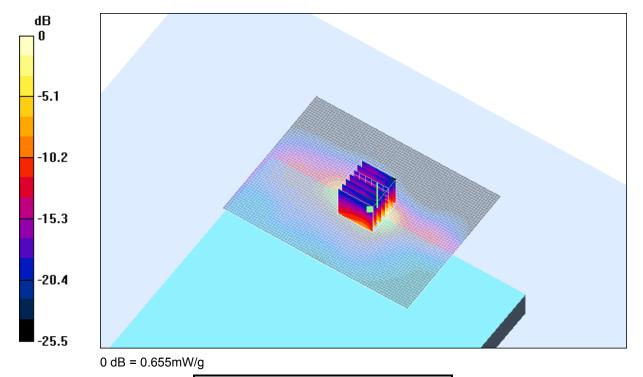
Peak SAR (extrapolated) = 1.82 W/kg

SAR(1 g) = 0.544 mW/g; SAR(10 g) = 0.201 mW/g

Reference Value = 15.6 V/m

Power Drift = 0.2 dB

Maximum value of SAR = 0.655 mW/g



# SAR MEASUREMENT PLOT 1

Ambient Temperature Liquid Temperature Humidity

File Name: Arm-Held DSSS 2.45 Ghz Antenna AUX 04-03-04.da4

DUT: Fujitsu Tablet Ocampa2 with Calexico2 11bg Module; Type: WM3B2200BG; Serial: 005681463ADC55373103

- \* Communication System: DSSS 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1
- \* Medium: Body 2450 MHz; ( $\sigma = 1.97633 \text{ mho/m}, \epsilon_r = 51.2212, \rho = 1000 \text{ kg/m}^3$ )
- Electronics: DAE3 Sn442; Probe: ET3DV6 SN1380; ConvF(4.5, 4.5, 4.5)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section

Channel 11 Test/Area Scan (81x61x1): Measurement grid: dx=20mm, dy=20mm

Reference Value = 15.6 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.380 mW/g

Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

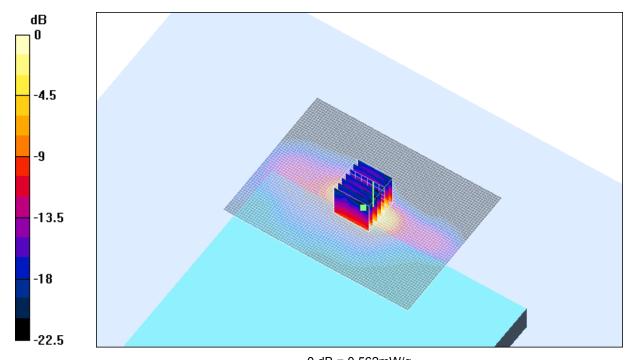
Peak SAR (extrapolated) = 1.54 W/kg

SAR(1 g) = 0.478 mW/g; SAR(10 g) = 0.184 mW/g

Reference Value = 15.6 V/m

Power Drift = -0.1 dB

Maximum value of SAR = 0.562 mW/g



0 dB = 0.562 mW/g

# SAR MEASUREMENT PLOT 2

**Ambient Temperature Liquid Temperature** Humidity

File Name: Tablet DSSS 2.45 Ghz Antenna MAIN 04-03-04.da4

DUT: Fujitsu Tablet Ocampa2 with Calexico2 11bg Module; Type: WM3B2200BG; Serial: 005681463ADC55373103

- \* Communication System: DSSS 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1
- \* Medium: Body 2450 MHz; ( $\sigma$  = 1.97633 mho/m,  $\epsilon_r$  = 51.2212,  $\rho$  = 1000 kg/m<sup>3</sup>)
- Electronics: DAE3 Sn442; Probe: ET3DV6 SN1380; ConvF(4.5, 4.5, 4.5)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section Channel 11 Test/Area Scan (81x61x1): Measurement grid: dx=20mm, dy=20mm

Reference Value = 6.4 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.285 mW/g

Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

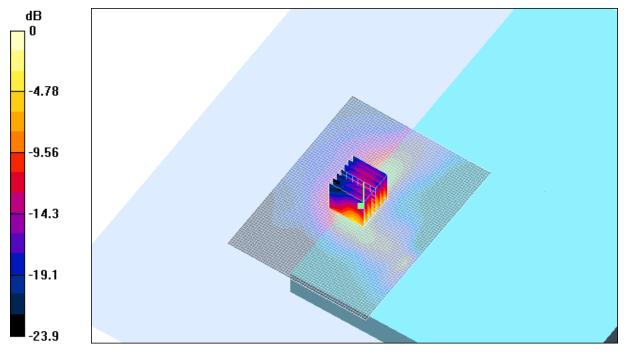
Peak SAR (extrapolated) = 0.735 W/kg

SAR(1 g) = 0.252 mW/g; SAR(10 g) = 0.110 mW/g

Reference Value = 6.4 V/m

Power Drift = -0.2 dB

Maximum value of SAR = 0.284 mW/g



0 dB = 0.284 mW/g

# SAR MEASUREMENT PLOT 3

**Ambient Temperature Liquid Temperature** Humidity

File Name: Arm-Held DSSS 2.45 Ghz Antenna AUX 10 inch Screen 04-03-04.da4

DUT: Fujitsu Tablet Ocampa2 with Calexico2 11bg Module; Type: WM3B2200BG; Serial: 005681463ADC55373103

- \* Communication System: DSSS 2450 MHz; Frequency: 2462 MHz; Duty Cycle: 1:1
- \* Medium: Body 2450 MHz; ( $\sigma = 1.97633 \text{ mho/m}, \epsilon_r = 51.2212, \rho = 1000 \text{ kg/m}^3$ )
- Electronics: DAE3 Sn442; Probe: ET3DV6 SN1380; ConvF(4.5, 4.5, 4.5)
- Phantom: Flat Phantom 10.1; Serial: P 10.1; Phantom section: Flat 2.2 Section Channel 11 Test/Area Scan (81x61x1): Measurement grid: dx=20mm, dy=20mm

Reference Value = 16.2 V/m

Power Drift = 0.0 dB

Maximum value of SAR = 0.608 mW/g

Channel 11 Test/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

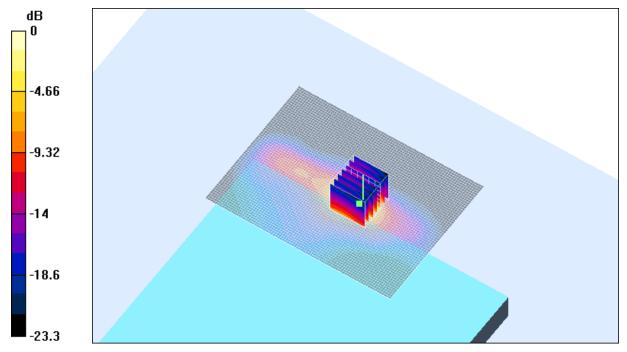
Peak SAR (extrapolated) = 1.84 W/kg

SAR(1 g) = 0.643 mW/g; SAR(10 g) = 0.260 mW/g

Reference Value = 16.2 V/m

Power Drift = 0.0 dB

Maximum value of SAR = 0.771 mW/g

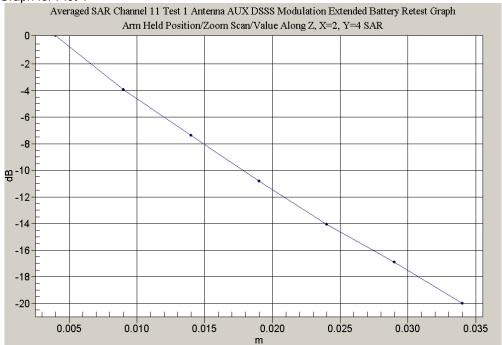


0 dB = 0.771 mW/g

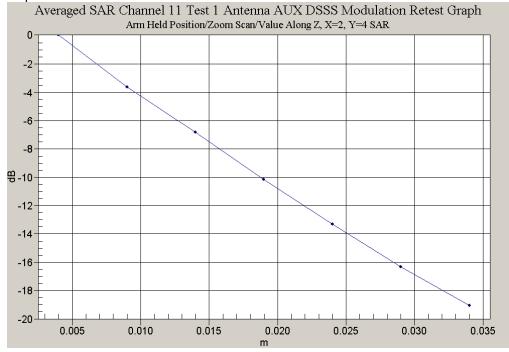
# SAR MEASUREMENT PLOT 4

**Ambient Temperature Liquid Temperature** Humidity

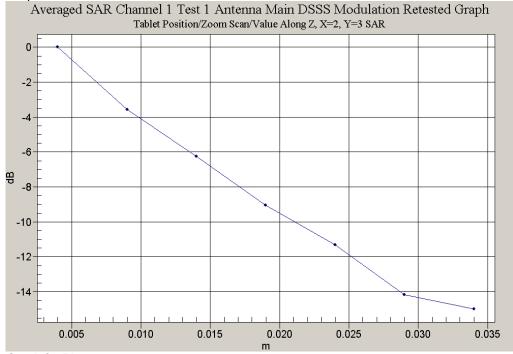
### SAR Graph for Plot 1



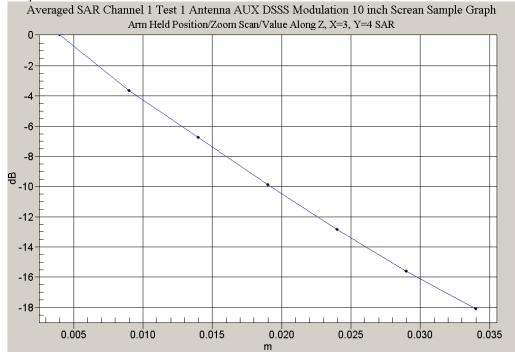
# SAR Graph for Plot 2



### SAR Graph for Plot 3



# SAR Graph for Plot 4



File Name: Validation 2450 MHz (DAE442 Probe1380) 04-03-04.da4

DUT: Dipole 2450 MHz; Type: DV2450V2; Serial: 724

- \* Communication System: CW 2450 MHz; Frequency: 2450 MHz; Duty Cycle: 1:1 \* Medium: Head 2450 MHz; ( $\sigma$  = 1.82411 mho/m,  $\epsilon_r$  = 39.7062,  $\rho$  = 1000 kg/m<sup>3</sup>)
- Electronics: DAE3 Sn442; Probe: ET3DV6 SN1380; ConvF(4.8, 4.8, 4.8)
- Phantom: SAM 12; Serial: 1060; Phantom section: Flat Section

Channel 1 Test 2/Area Scan (61x61x1): Measurement grid: dx=15mm, dy=15mm

Reference Value = 99.3 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 16.1 mW/g

Channel 1 Test 2/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

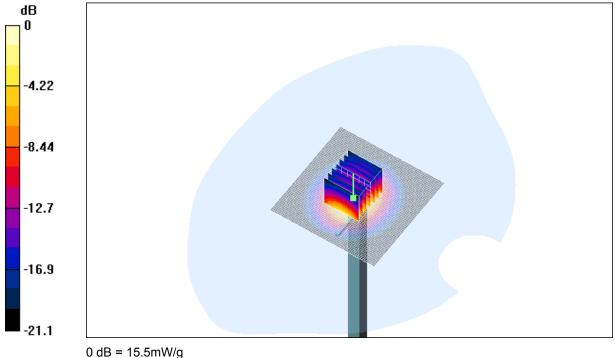
Peak SAR (extrapolated) = 27.7 W/kg

SAR(1 g) = 13.6 mW/g; SAR(10 g) = 6.51 mW/g

Reference Value = 99.3 V/m

Power Drift = 0.01 dB

Maximum value of SAR = 15.5 mW/g



15.5111vv/g

# SAR MEASUREMENT PLOT 4

Ambient Temperature Liquid Temperature Humidity

# SAR Graph for Plot 4

