



To: Steven Dayhoff (Steven.dayhoff@fcc.gov)
/FCC Equipment Authorization Branch

Date: May 2, 2005

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Applicant : Rexon Technology Corp.
FCC ID : I7ORL328V
Correspondence Reference Number : 28792
731 Confirmation Number : EA915331

Subject : Reply for FCC's [Info Request](#) dated 4/20/2005

Q1) SAR is unexpectedly low for this power. If possible please submit SAR data for output of device connected to 150 MHz or 300 MHz dipole using same device operational setup and similar phantom-spacings to device-case and/or antenna.

A1) As FCC requested, we detached Antenna, and connected each dipole antenna with matching each frequency, and proceeded SAR test again. The summary of result is as below:

Frequency	Result (100 duty cycle)	Result (50 duty cycle)
150 MHz	2.71 mW/g	1.36 mW/g
162 MHz	1.37 mW/g	0.685 mW/g
174 MHz	1.80 mW/g	0.900 mW/g

* Distance from phantom to dipole antenna : 25 mm

For your reference I attached SAR test data also.

If you have further questions feel free to contact me.

Regards,

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Test Laboratory: SGS Testing Korea

Rexon LMR_Head SAR_Dipole

DUT: Dipole 150 MHz; Type: 3121-DB1; Serial: 0192

Communication System: CW; Frequency: 150 MHz; Duty Cycle: 1:1

Medium: H150 Medium parameters used: $f = 150 \text{ MHz}$; $s = 0.736 \text{ mho/m}$; $\epsilon_r = 53$; $\rho = 1000$

kg/m^3

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(8.9, 8.9, 8.9); Calibrated: 2004-04-28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2004-04-30
- Phantom: Flat Phantom 4.3; Type: Flat Phantom 4.3; Serial: 1300
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Head Low C/Area Scan (51x161x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 2.88 mW/g

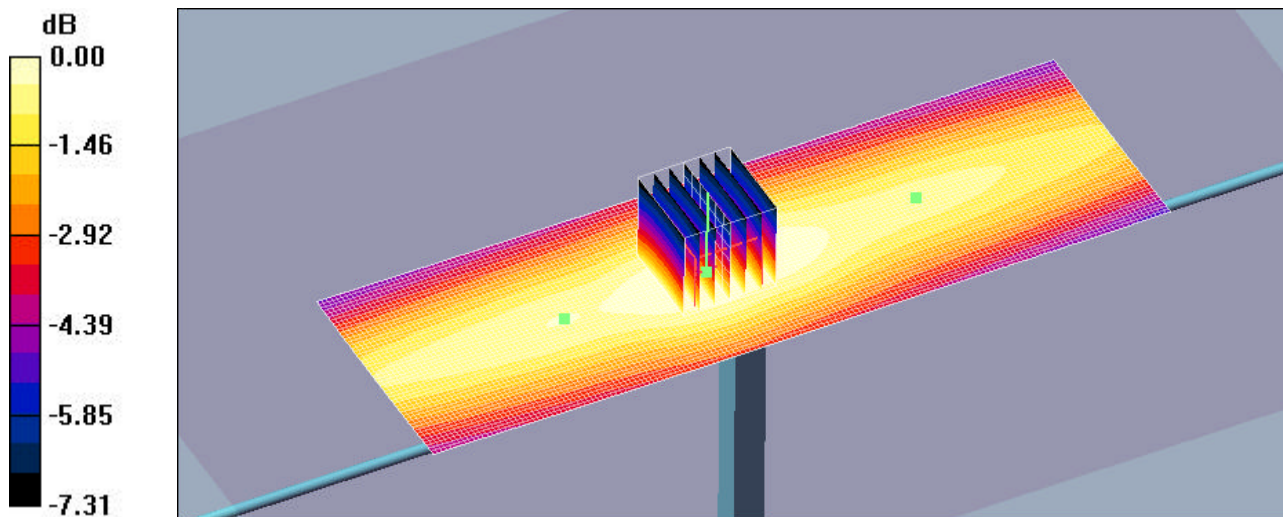
Head Low C/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 65.8 V/m ; Power Drift = -0.627 dB

Peak SAR (extrapolated) = 4.36 W/kg

SAR(1 g) = 2.71 mW/g ; SAR(10 g) = 1.93 mW/g

Maximum value of SAR (measured) = 2.82 mW/g



0 dB = 2.82 mW/g

Test Laboratory: SGS Testing Korea

Rexon LMR_Head SAR_Dipole

DUT: Dipole 150 MHz; Type: 3121-DB1; Serial: 0192

Communication System: CW; Frequency: 162 MHz; Duty Cycle: 1:1

Medium: H150 Medium parameters used: $f = 162 \text{ MHz}$; $s = 0.746 \text{ mho/m}$; $\epsilon_r = 52.3$; $\rho = 1000$

kg/m^3

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(8.9, 8.9, 8.9); Calibrated: 2004-04-28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2004-04-30
- Phantom: Flat Phantom 4.3; Type: Flat Phantom 4.3; Serial: 1300
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Head Mid C/Area Scan (51x141x1): Measurement grid: $dx=15\text{mm}$, $dy=15\text{mm}$

Maximum value of SAR (interpolated) = 1.48 mW/g

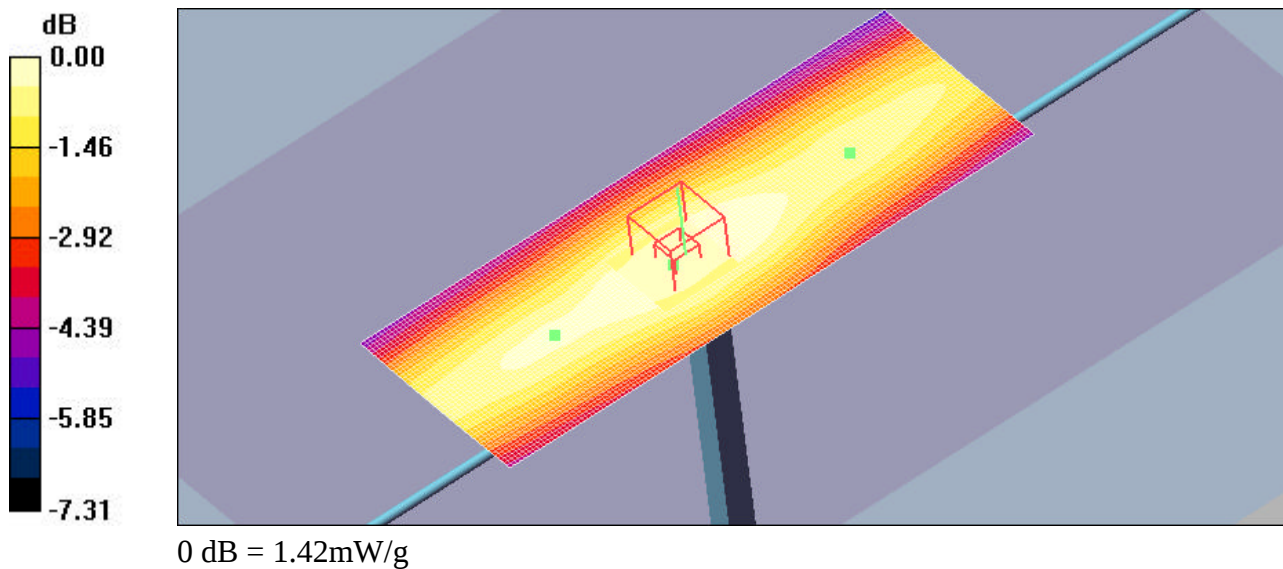
Head Mid C/Zoom Scan (7x7x7)/Cube 0: Measurement grid: $dx=5\text{mm}$, $dy=5\text{mm}$, $dz=5\text{mm}$

Reference Value = 46.7 V/m ; Power Drift = -0.664 dB

Peak SAR (extrapolated) = 2.19 W/kg

SAR(1 g) = 1.37 mW/g ; SAR(10 g) = 0.983 mW/g

Maximum value of SAR (measured) = 1.42 mW/g



Test Laboratory: SGS Testing Korea

Rexon LMR_Head SAR_Dipole

DUT: Dipole 150 MHz; Type: 3121-DB1; Serial: 0192

Communication System: CW; Frequency: 174 MHz; Duty Cycle: 1:1

Medium: H150 Medium parameters used: $f = 174$ MHz; $s = 0.757$ mho/m; $\epsilon_r = 51.7$; $\rho = 1000$

kg/m³

Phantom section: Flat Section

DASY4 Configuration:

- Probe: ET3DV6 - SN1782; ConvF(8.9, 8.9, 8.9); Calibrated: 2004-04-28
- Sensor-Surface: 4mm (Mechanical And Optical Surface Detection)
- Electronics: DAE3 Sn567; Calibrated: 2004-04-30
- Phantom: Flat Phantom 4.3; Type: Flat Phantom 4.3; Serial: 1300
- Measurement SW: DASY4, V4.5 Build 19; Postprocessing SW: SEMCAD, V1.8 Build 146

Head High C/Area Scan (51x161x1): Measurement grid: dx=15mm, dy=15mm

Maximum value of SAR (interpolated) = 1.88 mW/g

Head High C/Zoom Scan (7x7x7)/Cube 0: Measurement grid: dx=5mm, dy=5mm, dz=5mm

Reference Value = 53.1 V/m; Power Drift = -0.790 dB

Peak SAR (extrapolated) = 2.87 W/kg

SAR(1 g) = 1.8 mW/g; SAR(10 g) = 1.28 mW/g

Maximum value of SAR (measured) = 1.88 mW/g

