TEST REPORT

SAR ANALYSIS REPORT
FROM
RFI GLOBAL SERVICES LTD

Test of: Mini Telemetry

FCC ID: YOMMINITEL2010

To Spec: Apr. 23, 2012 KDB Draft 447498 DR01

SAR Analysis Report V2.0

Version 2.0 Supersedes All Previous Versions

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1. Document for General SAR Test Reduction and Exclusion Guidance

Device Description:

Mini Telemetry system consists of a separate transmitter and receiver unit; the overall system is intended to be a wireless means of transmitting physiological signals from pregnant women to a bed-side fatal monitor.
The transmitter consists of connectors for 3 types of transducers namely pulsed Doppler (fetal heart rate), Fetal ECG and uterine activity (tocotransducer - *transducer used to measure uterine activity / IUPC*) are provided on the bottom side of the unit. The transducers are placed on ambulatory mother and the unit is strapped to her using loops present on the top side of the transmitter.

The transmitter unit communicates with the receiver unit in the frequency range of 608-614 MHz through radio module. The radio module is manufactured by Wood & Douglas. Connected to the module is an integrated helical antenna present inside the transmitter. The receiver is in turn connected to a bedside fetal monitor used to monitor the condition of the fetus. The communication between the transmitter and receiver is unidirectional i.e. from transmitter to receiver.

To ensure the device complies to the RF exposure guidelines SAR analysis is carry out in this report as per FCC Apr. 23, 2012 KDB draft 447498 DR01 item IV C 1 (ii) (a), and using 5 mm for the minimum separation distance in the formula. This approach has been agreed with the FCC in a pre-TCB KDB inquiry – 794004.

Transmitter Parameters:

Transmitter Channel Number	Transmitter Frequency (MHz)	Maximum Average power (mW)	Receiver Channel	Receiver Frequency (MHz)	Modulation scheme	Note	Duty Factor
0	608.025	**4 mW**	0	608.025	FSK	1, 2	100%
15	613.975	**4 mW**	15	613.975	FSK	1, 2	100%

Note:
1. The device is setup in "mode #1" which allows the transmitter powered up in normal operating mode and transmitting data to receiver.
2. Power measured is conducted.
3. power tolerance = +/- 1.25

Calculation for SAR test exclusion considerations:

Equation used

$$[(max.\ power\ of\ channel,\ including\ tolerance,\ mW)/(min.\ separation\ distance,\ mm)] \cdot [\sqrt{f_{(GHz)}}] \leq 3.0;$$

Check for channel 0;
((4mW + 1.25mW) / 5mm) *(√0.608025) = 0.82

Check for channel 15;
((4mW + 1.25mW) / 5mm) *(√0.613975) = 0.82

Conclusion:
Both calculated values for channel 0 and 15 are below the threshold values of 3.0