

## SAR MEASUREMENT REPORT

### 1.1 Scope

*Environmental evaluation measurements of specific absorption rate<sup>1</sup> (SAR) distributions in simulated human head and body tissues exposed to radiofrequency (RF) radiation from wireless portable devices for compliance with the rules and regulations of the U.S. Federal Communications Commission (FCC).<sup>2</sup>*

|               |                  |
|---------------|------------------|
| Company Name: | CELL SHIELD INC. |
|---------------|------------------|

- EUT Type: Ceramic composition absorber
- Trade Name / Model: **CELL SHIELD**
- Dates of Tests: November 27, 2000  
Place of Tests: PCTEST Engineering Lab,  
Columbia, MD, U.S.A.
- Report Serial No.: SAR.201115578.CSI

The Cell Shield Electromagnetic Field Absorber was tested with typical Cellular Phone with the antenna extended and retracted. The Absorber was positioned on the host phone in the locations recommended by CELL SHIELD. The host phone was a dual mode phone with a frequency range of 824.04-848.97 MHz.



**NVLAQ**<sup>®</sup>  
Lab Code 100431-0

<sup>1</sup> Specific Absorption Rate (SAR) is a measure of the rate of energy absorption due to exposure to an RF transmitting source (wireless portable device).

<sup>2</sup> IEEE/ANSI Std. C95.1-1992 limits are used to determine compliance with FCC ET Docket 93-62.



## Summary Of Test Findings

| Testing Institution  | Reduction |
|--|-----------|
| <b>Global Certification laboratories, LTD.</b> On two separate measurements, using different connections, the near-field emissions from the ear piece (speaker) of the phone were reduced by 90% | 90%       |
| <b>IDX RMC Laboratories USA</b> reduction in SAR. Antenna in ( <a href="#">see below</a> )   | 26/40/68% |
| <b>Korean Electromagnetic Engineering Society</b> Pohang Institute of Technology ( <a href="#">see below</a> )   | 70%       |
| <b>SOREQ NRC</b> , Radiation Safety Division Yavoe 81800 Israel. Reduction in SAR  | 33%       |
| <b>Samsung Electronics.</b> No adverse effect on phone performance   |           |
| <b>Federal University of Sao Carlos</b> Physics Dept. concluded Cell Shield absorbs at 900Mhz and 1800 MHz   |           |
| <b>TUV HESSEN</b> also a German Government Dept, tested no adverse effect on phone performance ( <a href="#">.PDF File Available, overview below</a> )   |           |
| <b>Yong Jung Ache Clinic</b> tested heating affect on Head and face ( <a href="#">see below</a> )  |           |
| <b>IMST</b> in Germany, a Federal Institution and only one of five places in Europe to have a SAR robot. Reduction in SAR ( <a href="#">.PDF File Available</a> )                                | 30%       |

Note: The test results are totally independent and carried out under different conditions and testing set-up.

## Summary Of Test Findings Of Cell Shield

### USA

#### IDX RMC LABORATORIES

5450 33th Ave. Suite 100 Fort Lauderdale FL 33309

#### Results (SAR TEST)

Test result from this organisation were carried out to obtain a level of practical effectiveness, the finding were divided in to the following

| Antenna     | Without Cell Shield | With Cell Shield | Difference |
|-------------|---------------------|------------------|------------|
| Antenna out | 1.66                | 1.32             | 26%        |
| Antenna in  | 2.30                | 1.37             | 68%        |

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#### Pohang Institute (Korean Electro-magnetic Engineering Society)

The Pohang institute was used to test Cell Shield from an academic viewpoint and a range of tests were conducted. The overall summary concluded that Cell Shield has a reduction of 70% of EMF and 90% reduction of heat. Tests were carried out on a Nokia 5110

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**Tuv Hesse** is a German Federal dept. that tested Cell Shield to see if by having Cell Shield attached to your mobile if it would affect the phones performance in any way.

The findings concluded that Cell Shield has no adverse effect on the phones performance - [view PDF](#)