



EMI TEST Ltd.

EMC & SAFETY Test Laboratory

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ELECTROMAGNETIC COMPATIBILITY

TEST REPORT No. 1MNP175

FOR:

Company Name: **Mono Pro Ltd.**

Equipment Under Test: **“Smart & Safe™”**

Total number of pages (including this page): 4

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# EMI TEST LAB. LTD.

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EMI Test Labs Ltd. Provide evaluation and testing in the EMC and safety fields. EMI test is FCC listed and EMCC European lab accredited.

## TEST REPORT.

### Subject:

Electro-magnetic Radiation measurements for cellular phone hands free head set.

### Description:

“smart & safe<sup>TM</sup>” hands free head set , new innovation based on hollow tube that transmits the sound from the speaker to the earpiece.

### The parameters:

1. Electric Filed Strength
2. Power Density.

unit of measure  $\mu\text{W}/\text{cm}^2$  (Micro Watts per  $\text{cm}^2$ )

### Test method:

The measurements were made to three different types of cellular phone, using two different cellular systems (TDMA or GSM) as described in report #1MNP175

For each model, the parameters had been measured with the “smart & safe<sup>TM</sup>” hand free and without the hand free set – means Direct to the telephone device

The measurements have been made while the transmission is low power, and in high power.

The data were measured from two areas:

1. Earpiece - the unit that located near by the “ear” of the user
2. Mouthpiece - the unit that located near by the “mouth” of the user

### Notes:

- At the “Hands free head set”, the unit that located near by the “ear”, is relevant for the radiation measurement at the head and brain zone.
- The hands free head set was located 40 cm from the cellular telephone device – accordingly the distance as in usual operation

### Test Results:

Analyzing the data, indicates that Using the “smart & safe<sup>TM</sup>” hands free head set, is prevent the Electro-magnetic Radiation emission, especially at the Earpiece - the unit that located near by the “ear” of the user and most relevant for the radiation level on the head and brain zone.

### Conclusion

while using the “smart & safe<sup>TM</sup>” hands free head set,

The Power Density measured at the Earpiece, was reduced between 96% to 99.9%

The Electric filed strength measured at the Earpiece, was reduced between 78% to 98%

Ben-David Yossi, M.Sc.  
EMI Test Labs, Manager

## Measurement Results and data analysis: #1mnp175

### Model: Nokia 5110 system GSM ( $\mu\text{W}/\text{cm}^2$ )

Model: Nokia 5110 system GSM ( $\mu\text{W}/\text{cm}^2$ )	Direct to the telephone device	"smart & safe" hands free head set	deviation
<b>electric filed density / low transmission / ear</b>	<b>760</b>	<b>3.2</b>	<b>99.6%</b>
<b>electric filed density / high transmission / ear</b>	<b>2000</b>	<b>2.8</b>	<b>99.9%</b>
<b>electric filed strength / low transmission / ear</b>	<b>86</b>	<b>3.2</b>	<b>96.3%</b>
<b>electric filed strength / high transmission / ear</b>	<b>200</b>	<b>4.2</b>	<b>97.9%</b>
electric filed density / low transmission / mouth	1040	76	92.7%
electric filed density / high transmission / mouth	900	19.5	97.8%
electric filed strength / low transmission / mouth	65	7.7	88.2%
electric filed strength / high transmission / mouth	65	15	76.9%

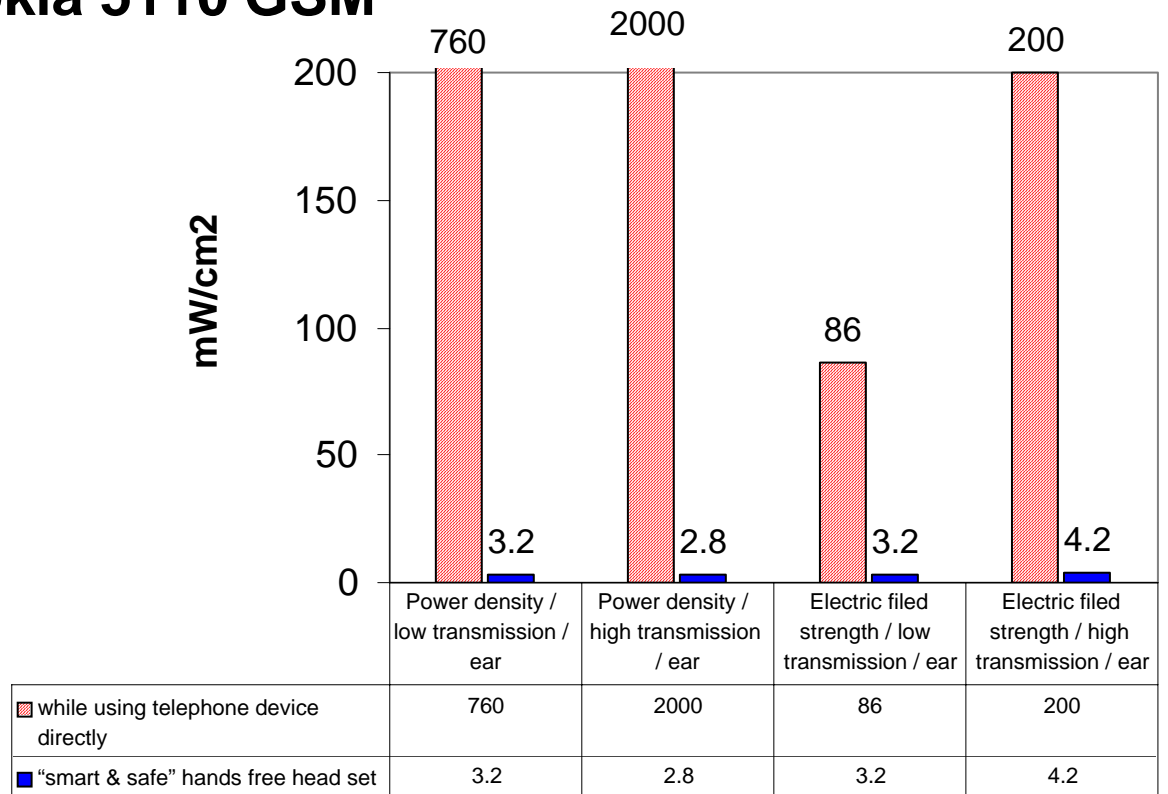
### Model: Nokia 8620 system TDMA ( $\mu\text{W}/\text{cm}^2$ )

Model: Nokia 8620 system TDMA ( $\mu\text{W}/\text{cm}^2$ )	Direct to the telephone device	"smart & safe" hands free head set	deviation
<b>electric filed density / low transmission / ear</b>	<b>235</b>	<b>1.7</b>	<b>99.3%</b>
<b>electric filed density / high transmission / ear</b>	<b>890</b>	<b>1.3</b>	<b>99.9%</b>
<b>electric filed strength / low transmission / ear</b>	<b>30</b>	<b>2.3</b>	<b>92.3%</b>
<b>electric filed strength / high transmission / ear</b>	<b>38</b>	<b>1.8</b>	<b>95.3%</b>
electric filed density / low transmission / mouth	1050	39	96.3%
electric filed density / high transmission / mouth	1600	10	99.4%
electric filed strength / low transmission / mouth	60	11	81.7%
electric filed strength / high transmission / mouth	47	6	87.2%

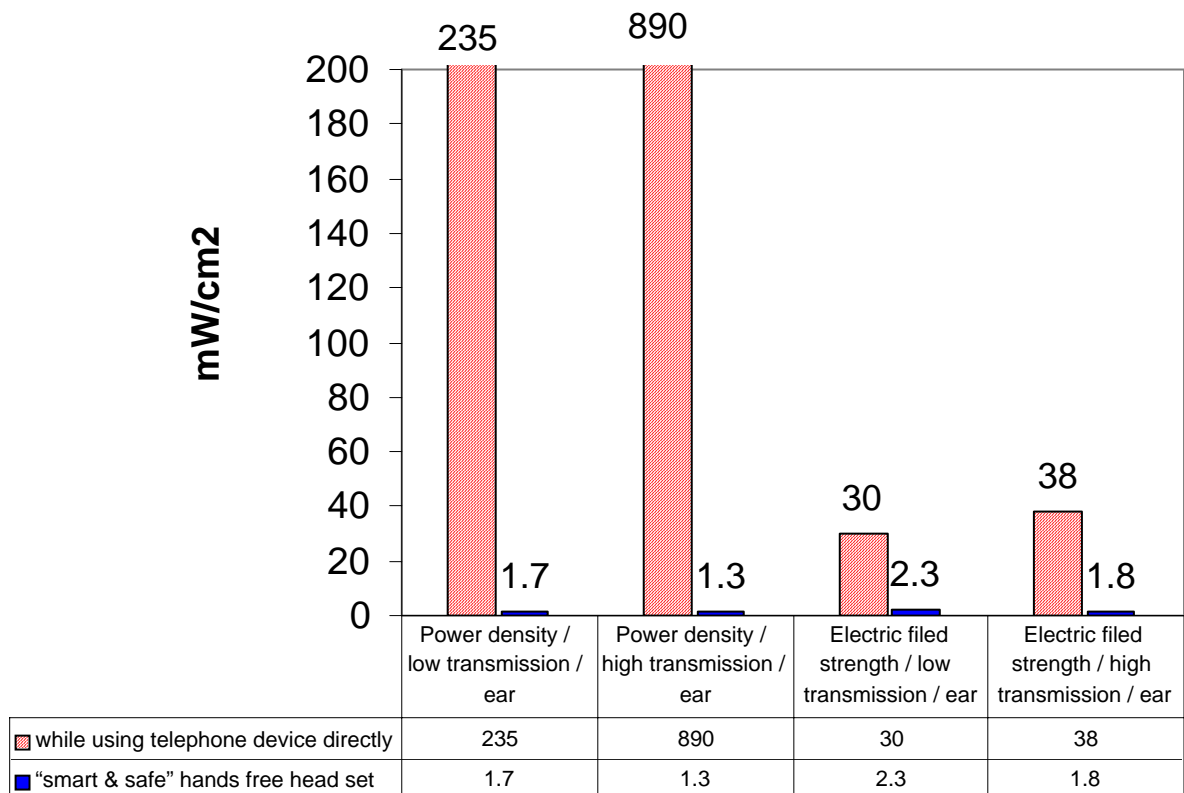
### Model: MOTOROLA StarTEC system GSM ( $\mu\text{W}/\text{cm}^2$ )

Model: MOTOROLA StartTAC system GSM ( $\mu\text{W}/\text{cm}^2$ )	Direct to the telephone device	"smart & safe" hands free head set	deviation
<b>electric filed density / low transmission / ear</b>	<b>42</b>	<b>1.5</b>	<b>96.4%</b>
<b>electric filed density / high transmission / ear</b>	<b>55</b>	<b>1.8</b>	<b>96.7%</b>
<b>electric filed strength / low transmission / ear</b>	<b>14</b>	<b>2.4</b>	<b>82.9%</b>
<b>electric filed strength / high transmission / ear</b>	<b>12</b>	<b>2.6</b>	<b>78.3%</b>
electric filed density / low transmission / mouth	309	25	91.9%
electric filed density / high transmission / mouth	260	31	88.1%
electric filed strength / low transmission / mouth	32	9	71.9%
electric filed strength / high transmission / mouth	29	9	69.0%

# Nokia 5110 GSM



# Nokia 8260 TDMA



# MOTOROLA SrarTEC GSM

