

“The Magnetic Fields of Mobile Phones: A Review of Protective Devices”

by G. W. Crockford*

Foreword

The past few years have seen a phenomenal rise in the number of mobile phones being used by people of all ages, accompanied by a corresponding rise in public concern over their safety. In this report, G. W. Crockford describes some of his research work with personal protective devices for mobile phones and his conclusions as to the effectiveness of these devices.

Crockford reaches the conclusion that **“Clearly, the most effective device for controlling the magnetic fields is the Mobile Protection Chip (MPC).”**

The adverse health effects generated by magnetic fields are thought to arise due to the varying flow of current through a phone, which causes the strength of the magnetic fields to vary accordingly. Consequently, most protective devices on the market are designed to remove magnetic fields. Central to the work reported by Crockford is the idea that different materials generate different magnetic fields, each requiring separate control, e.g. the magnetic field generated by iron differs from that generated by copper.

There are two approaches to the control of magnetic fields. One method of control is by means of a ‘keeper’, which casts a magnetic shadow or blocking field behind itself. In order to control all of the magnetic fields generated by a mobile phone, this ‘keeper’ would need to contain all of the elements and materials present in the phone, especially those contained in the electronic circuitry, e.g. to control a magnetic field created by silicon, one needs to incorporate silicon in the ‘keeper’. The second approach to control of magnetic fields is to redirect them away from the user.

In the natural, undisturbed environment, the earth’s energy fields are in balance. This balance is disturbed by man-made devices such as mobile phones, thus negatively affecting health, and any protective device must strive to restore this balance in some way.

There are a number of devices on the market designed to combat some of the emissions from mobile phones. Many of these had not been fully tested until now, thus making their standardisation very difficult. It appears that a lack of research into how the devices actually work, and how to engineer them to gain control of the magnetic fields, is the main reason for their respective deficiencies. The Crockford report has attempted to provide clear statements of how the

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devices work, and just how effective each one is. Crockford concludes by proposing that the principle on which the devices work should be clearly stated and that the devices should be subjected to performance standards.

Table 1 from Crockford’s report gives a summary of his results, based on the various elements for which the devices act as ‘keepers’. Many of the devices protect against only a small number of the magnetic fields generated by the phone.

Table 1. Summary of the magnetic fields controlled by devices designed to protect mobile phone users from deleterious energy emissions from the phone.

Device	C	Fe	Co	Al	Cu	Na	K	Ti	Cr	Pb	Sn	OH ⁻	Ni	Cd	Si	Ta
Mini Rayonex	√	√					√	√		√			√		√	
MPC	√	√	√	√	√	√		√	√	√	√		√	√	√	
Phone Dome	√	√		√												√
Safety Butterfly	√			√	√	√										
Techno AO		√		√	√	√								√	√	
Vector 100	Diamagnetic field not sufficiently strong to control fields during a call															
Wave Shield	No effect on the magnetic fields															

C, Carbon; Fe, Iron; Co, Cobalt, Al, Aluminium; Cu, Copper, Na, Sodium; K, Potassium; Ti, Titanium; Cr, Chromium; Pb, lead; Sn, Tin; OH⁻, the hydroxide ion; Ni, nickel; Cd, Cadmium; Si, Silicon; Ta, Tantalum.

The most effective device for controlling the magnetic fields is the Mobile Protection Chip, a small device with minute fragments of natural gemstones mounted in plastic.

It should be noted that since Crockford completed his report, the number of gemstones in this device has increased from 8 to 9. As gemstones are derived from a wide range of elements, several of the elements in the phone can potentially be accounted for.

At the time of Crockford’s study, the Mobile Protection Chip controlled the magnetic fields generated by a total of 13 elements and rebalanced the magnetic energy field, rendering it by far the most effective of the chips. Since then the elements contained in the chip have been increased to 19 in total. The MPC also removes the diamagnetic field of the phone.**

It is clear from Crockford’s research that most of the devices on the market, **with the exception of the Mobile Protection Chip**, are not designed to control the majority of the emitted fields.

**The gemstones in the Mobile Protection Chip now contain the following elements: Phosphorus, Sodium, Calcium, Lithium, Magnesium, Iron, Aluminium, Boron, Silicon, Oxygen, Hydrogen, Zirconium, Chlorine, Titanium, Cadmium, Copper, Cobalt, Niobium and Tantalum.