Title: MOBILE PHONE CASING

Abstract: A mobile phone casing (01,1), comprising the flat plate in rectangular shape with the round corner edges and the said flat plate (11) having the vertical strip (01) at its both sides along with the outer edges of the flat plate (11); the said flat plate (11) and the vertical strip (01) thickness is at least 0.3mm thickness; the said vertical strip(01) extended vertically on both sides of the said flat plate (11) with at least 5mm length; the said mobile phone casing (01,1) having at least one cover(s) (2,3,4) at back side; the said mobile phone casing (01,1) is made by the metallic carbon alloys material, which prevent carbon the passage of the mobile phone's electromagnetic radio wave's (20) radiation across through it. The said mobile phone casing (01,1) incorporated to protect the human body health from the mobile phone radio wave's radiation, while using.
before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments (Rule 48.2(h))
MOBILE PHONE CASING

This invention relates to protect, prevent, restrict and reduce the radio wave's radiation effect to the human body in the field of Electromagnetic Spectrum and Radio Waves Communication technology to in the field of GSM(Global System for Mobile), WDCMA(Wideband Code Division Multiple Access), WIFI(Wireless Fidelity, Wireless Internet), GPRS(General Packet Radio Service), HSPA(High Speed Packet Access), High Speed Downlink Packet Access(HSDPA), GPS(Global Positioning System), High-Speed Circuit-Switched Data (HSCSD), Wireless Packet Data Transfer Technology, Universal Mobile Telecommunications Service (UMTS) users.

The Mobile Phone casing comprising the flat plate in rectangular shape with the round corner edges and the said flat plate having the vertical strip at its both sides along with the outer edges; the said flat plate support the fitment of the touch / display screen at one side and the mobile phone's printed circuit board at another side; the said flat plate have the covers at back side to protect the mobile phone's printed circuit board and the battery.

The known type of mobile phone casings are not anti-radiation effects.

The known type of the mobile phone casings are causing the serious effect on the human body.

The known type of the mobile casings is not having the separator between the display and the printed circuit board.

The known type of the mobile casings are not having the protection from the battery explosion while charging.

The drawback of the existing mobile casings is not stopping the radiation of the mobile- phone to the human body.

The drawback of the existing mobile casings are are, not having the anti-radiation protection.

The drawback of the existing mobile casings is not having the separate flat frame between the printed circuit board and the touch / display screen.

The drawback of the existing mobile casings are having the year speaker's output towards the human body, which effects the ear health.

It is an object of this invention to propose an inventive step in mobile phone casings to provide a mobile phone's anti-radiation.

It is an objective of this invention to propose an inventive step in mobile phone casings to provide an anti-radiation effects to the human body.

It is an objective of this invention to propose an inventive step in mobile phone casings to provide a human health from the mobile phone radiation effects.

It is an objective of this invention to propose an inventive step in mobile phone casings to provide an explosive preventer of the mobile phone batteries.
It is an objective of this invention to propose an inventive step in mobile phone
 casings to provide a shield for mobile phone radiation's effects to the human body.

It is an objective of this invention to propose an inventive step in mobile phone
casings to provide a shield to the human health from the mobile phone's radiation
effects.

It is an objective of this invention to propose an inventive step in mobile phone
casings to provide a shield to the human ear from the mobile phone's speaker output.

The said mobile phone casing(01,11) comprising the flat plate in rectangular shape
with the round corner edges and the said flat plate(11) having the vertical strip (01)
at its both sides along with the outer edges of the flat plate(11); the said flat plat(11)
and the vertical strip(01) is made by the metallic carbon alloys material, which
prevent the passage of the mobile phone's radiation across it: the said flat plat(11)
and the vertical strip(01) thickness is atleast 0.05mm thickness. The said verticals
trip (01) extended vertically on both sides of the said flat plate(11) with ateleast 5mm
length. The said flat plate(01) and the vertical strip(11) support the fitment and
position of the touch / display screen (18) at front side and the said printed circuit
board(16) on another side. The said mobile phone casing(01,11) having the atleast
one back cover(s) (2,3,4) to protect the mobile phone's printed circuit board(16) at
back side; and atleast one back cover to allows the transmission and receive of the
radio waves(20) from the mobile phone to service provider tower and vice versa, the
said mobile cover(s) (2,3,4) is made with the plastic to receive and transmit the radio
waves(20).

The said mobile phone casing(01,11) having the power on / off switch (7) made by
the metallic carbon alloys material, which prevent protect, restrict, stop, reduce the
passage of the mobile phone's radiations across through it. Also the said mobile
phone casing(01,11) having the volume increase / decrease button (8), made by the
based-metallic alloys material, which prevent the passage of the mobile phones
radio wave's radiations across and through it.

A ear speaker's (17) sound waves passage(12) is made in round edges infront of the
said mobile phone's ear speaker(s)(17) towards the front side of the said mobile
phone casing(01,11); the said sound wave passage (12) is in round "L" shape from
the edges of the said speaker(17) to the surface of the said touch / display(18) to
protect the human ear from direct sound wave effects, the said sound waves
passage is atleast 0.1 mm internal width.

The said mobile phone casing's (01,11) flat surface having atleast one hole with the
diameter of atleast 0.1 mm and also atleast one round(15) rectangular shape
holes(15) to passage of the cables, front camera(6), said sound waves passage(s)
(12), said switches(7,6).
Brief discussions of the working method of innovation:

The said mobile phone casing(01,11) is exclusively useful for the GSM or CDMA based technology to reduce the electromagnetic radio wave's radiation effects atleast 01%. The said mobile casing(01,11) will restrict, stops and absorbs the electromagnetic radio wave's radiation, which are effecting the human being's health while using the mobile phone. The said electromagnetic radio wave's radiation passage is restricted only at back side of the mobile phone, means, opposite direction of the said touch / display screen(18), to protect the human being health loss / ills effects from the the said electromagnetic radio wave's radiation, the said mobile phone unlocked by the selected & accessible finger(s) touch on the display/touch panel(18).

Fig 1. Shows the one of the example of the front-side and Left side view of the said mobile casing(01,11). The said mobile casing having the touch / display screen(18) at its front side, and the said power on / off switch(7) at sides. The said mobile casing(01,11) protect, prevent, restrict and reduce the radio wave's radiation effect to the human body in the field of Electromagnetic Spectrum and Radio Waves Communication technology.

Fig 2. Shows the one of the example of the back & left side view of the said mobile casing(01,11). The said mobile casing having the atleast one back cover(s)(2,3,4) to protect the mobile phone's printed circuit board(16) at back side; and atleast one back cover to allows the transmission and receive of the radio waves(20) from the mobile phone to service provider tower and vise versa, the said mobile cover(s) (2,3,4) is made with the plastic to receive and transmit the radio waves(20). The said volume increase and decrease switch (8) at side of the said mobile casing(01,11). The re-charging point(14), mic(13) and the head set connection point(19) are at bottom side.

Fig 3. Shows the one of the example of the mobile casing (01,11) without the touch / display screen(18); the said flat surface(11) is in rectangular shape with the round corner edges and the said flat plate(11) having the vertical strip (01) at its both sides along with the outer edges of the flat plate(11); the said flat plat(11) and the vertical strip(01) is made by the carbon based-metallic alloys material, which prevent the passage of the mobile phone radio wave's radiations across through it; the said flat plat(11) and the vertical strip(01) thickness is atleast 0.05mm thickness. The said verticals trip (01) extended vertically on both sides of the said flat plate(11) with atelast 5mm length. The said flat plate(11) and the verticals trip(01) support the fitment and position of the touch / display screen (18) at front side and the said printed circuit board(16) on another side.

The said mobile phone casing(1,11) having the power on / off switch (07) made by the metallic carbon alloys material, which protect, prevent, restrict, stop, reduce the passage of the mobile phone radio wave's radiations across through it. Also the said
mobile phone casing (01,1) having the volume increase / decrease button (8), made by the metallic carbon alloys material, which protect, prevent, restrict, stop, reduce the passage of the mobile phone radio wave's radiations across through it.

A ear speaker's (17) sound waves passage(12) is made in round edges infront of the said mobile phone's ear speaker(s)(17) towards the front side of the said mobile phone casing(01,1); the said sound wave passage(12) is in round "L" shape from the edges of the said speaker(17) to the surface of the said touch / display(18) to protect the human ear from direct sound wave effects, the said sound waves passage is atleast 0.1 mm internal width.

**Fig 4.** Shows the one of the example of the mobile casing (01,1) from back side view left side view with the covers(2,3,4) open position and the printed circuit board(16) also not fitted. The mobile casing (01,1) having the speaker's(17) sound passage(12), the cable holes(15), mic point(13), charging point(14). A ear speaker's (17) sound waves passage(12) is made in round edges infront of the said mobile phone's ear speaker(s)(17) towards the front side of the said mobile phone casing (01,1); the said sound wave passage (12) is in round "L" shape from the edges of the said speaker(17) to the surface of the said touch / display(18) to protect the human ear from direct sound wave effects, the said sound waves passage is atleast 0.1 mm internal width. The said mobile phone casing's (01,1) flat surface having atleast one hole with the diameter of atleast 0.1 mm and also atleast one round rectangular shape holes(12) to passage of the cables, front camera(6), said sound waves passage(s)(12), said switches(7,8).

**Fig 5.** Shows the one of the example of the mobile casing (01,1) from back side view. The said back cover(s)(2,3,4) are opened. The said mobile phone's casing (1,1), the said printed circuit board(16) is fitted.

**Fig 6.** Shows the one of the example of the mobile casing (01,1) restrict the movement of the said radio wave's(20) radiation only at back side of the said mobile casing(01,1) in the field of Electromagnetic Spectrum, Wireless Data Transferring Technology and Radio Waves Communication Technology.

The said mobile phone casing(01,1) incorporated to protect, prevent, restrict, stop and reduce the radio wave's radiation effect to the human body in the field of Electromagnetic Spectrum, Wireless Data Transferring Technology and Radio Waves Communication Technology.
I claim(s);
Claim 1: A mobile phone casing(01,11), comprising the flat plate in rectangular shape with the round corner edges and the said flat plate(11) having the vertical strip (01) at its both sides along with the outer edges of the flat plate(11); the said flat plate (11) and the vertical strip(01) thickness is atleast 0.05mm thickness; the said vertical strip (01,11) extended vertically on both sides of the said flat plate(11) with atleast 5mm length; the said mobile phone casing(01,11) having at least one cover(s)(2,3,4) at back side.

Claim 2: A mobile phone casing(01,11) according to claim 1, the said mobile phone casing(11) incorporated to fitment and position of the mobile phone's touch / display screen(18) at one side and mobile phone's said printed circuit board(16) at another side.

Claim 3: A mobile phone casing(01,11) according to claim 1 to 2, the said mobile phone casing(01,11) having the atleast one back cover(s) (2,3,4) to protect the mobile phone's printed circuit board(16) at back side.

Claim 4: A mobile phone casing(01,11) according to claim 1 to 3, the said mobile phone casing(01,11) is made by the metallic carbon alloys material, which incorporated to protect, prevent, restrict, stop and reduce the passage of the mobile phone's electromagnetic radio wave's(20) radiation across through it in the field of Electromagnetic Spectrum, Wireless Data Transferring Technology and Radio Waves Communication Technology.

Claim 5: A mobile phone casing(01,11) according to claim 1 to 4, the said mobile phone casing(01,11) incorporated to transmit and receive the radio waves(20) only from back side of the said mobile phone casing(01,11) to protect the human being health in the field of Electromagnetic Spectrum, Wireless Data Transferring Technology and Radio Waves Communication Technology.

Claim 6: A mobile phone casing(01,11) according to claim 1 to 5, the said mobile phone casing(01,11) incorporated to protect, prevent, restrict, stop and reduce the radio wave's(20) radiation effect to the human body in the field of Electromagnetic Spectrum, Wireless Data Transferring Technology and Radio Waves Communication Technology.
Claim 7: A mobile phone casing(01,11) according to claim 1 to 6, the said mobile phone casing(01,11) technology incorporated to protect, prevent, restrict, stop and reduce the said radio wave's(20) radiation atleast 01%.

Claim 8: A mobile phone casing (1,11) according to claim 1 to 7, the said mobile phone unlocked by the selected and accessible finger(s) touch on the display/touch panel(18).

Claim 9: A mobile phone casing(01,11) according to claim 1 to 8, the said mobile phone casing's(01,11) technology substantially as herein described with reference to the accompanying drawing's technology is incorporated to reduce the radio wave's (20) radiation atleast 01% by protect, prevent, restrict, stop and reduce the radio wave's radiation while utilising the GSM(Global System for Mobile), WDCMA(Wideband Code Division Multiple Access), WIFI(Wireless Fidelity, Wireless Internet), GPRS(General Packet Radio Service), HSPA(High Speed Packet Access), High Speed Downlink Packet Access(HSDPA), GPS(Global Positioning System), High-Speed Circuit-Switched Data (HSCSD), Universal Mobile Telecommunications Service (UMTS) and Wireless Packet Data Transfer Technology.

Claim 10: A mobile phone casing(01,11) according to claim 1 to 9, the said mobile phone casing's(01,11) innovated technology substantially as herein described with reference to the accompanying drawings.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER
H04M1/02, H04B1/3888 Version=2017.01

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

H04M, H04B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic database consulted during the international search (name of database and, where practicable, search terms used)

Databases: Patseer, IPO Internal Database
Keywords: mobile phone case, removable, EMI, RF signal, shield

C. DOCUMENTS CONSIDERED TO BE RELEVANT

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<th>Category</th>
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<th>Relevant to claim No.</th>
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<td>X</td>
<td>WO2009129446 A2 (LAIRD TECHNOLOGIES INC, ET AL) 22 OCTOBER 2009 paragraphs [0035]-[0046]; and figures 7-9</td>
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<tr>
<td>Y</td>
<td>US270929 B1 (CONTECH RF DEVICES) &amp; 18 SEPTEMBER 2012 the whole document</td>
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<tr>
<td>Y</td>
<td>US 6501016 B1 (LAIRD TECHNOLOGIES INC, ET AL) 31 DECEMBER 2002 the whole document</td>
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<td>X,P</td>
<td>WO2016046663 A1 (SONY CORPORATION ET AL) &amp; 31 MARCH 2016 abstract; Page 4, line 2 - Page 7, line 30; Page 10, line 9 - Page 12, line 18.</td>
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See patent family annex.

Date of the actual completion of the international search 19-05-2017

Date of mailing of the international search report 19-05-2017

Authorized officer Chinta Laksmi Narayana

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Form PCT/ISA/210 (second sheet) (January 2015)
INTERNATIONAL SEARCH REPORT

Box No. II  Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

This international search report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☒ Claims Nos.: 9, 10
   because they relate to subject matter not required to be searched by this Authority, namely:
   Claims 9 and 10 contain references to the drawings.

   According to Rule 6.2(a) PCT, claims should not contain such references except where absolutely necessary, which is not the case here.

2. ☐ Claims Nos.:
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:

3. ☐ Claims Nos.:
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III  Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying additional fees, this Authority did not invite payment of additional fees.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:  

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/21 (continuation of first sheet (2)) (January 2015)
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