

Application No.: GZEM1303000863RF Page: 1 of 5 FCC ID: OJFGXCPLA-40

RF Exposure Compliance Requirement

1. Standard requirement

Systems operating under the provisions of this section shall be operated in a manner that ensures that the public is not exposed to radia frequency energy level in excess limit for maximum permissible exposure. In accordance with 47 CFR FCC Part 2 Subpart J, section 2.1091 this device has been defined as a mobile device whereby a distance of 0.2m normally can be maintained between the user and the device.

(a) Limits for Occupational / Controlled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S)(mW/cm²)	Averaging Times E ² , H ² or S (minutes)
0.3-3.0	614	1.63	(100)*	6
3.0-30	1842/f	4.89/f	(900/f)*	6
30-300	61.4	0.163	1.0	6
300-1500			F/300	6
1500-100000			5	6

(b) Limits for General Population / Uncontrolled Exposure

Frequency Range (MHz)	Electric Field Strength (E) (V/m)	Magnetic Field Strength (H) (A/m)	Power Density (S)(mW/cm²)	Averaging Times E ² , H ² or S (minutes)
0.3-1.34	614	1.63	(100)*	30
1.34-30	824/f	2.19/f	(180/f)*	30
30-300	27.5	0.073	0.2	30
300-1500			F/500	30
1500-100000			1.0	30

Note: f=frequency in MHz; *Plane-wave equivalent power density

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sos.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sos.com/terms</u> e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its intervention only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document for 90 days only.



Application No.: GZEM1303000863RF Page: 2 of 5 FCC ID: OJFGXCPLA-40

2. MPE Calculation Method

S (mW/cm²)=P*G/4Pi*R²

S= Power Density (mW/cm²)

P=Peak RF conducted output Power (mW)

G=EUT Antenna numeric gain (numeric)

R= Separation distance between radiator and human body (cm);

 $\mathsf{R}=\sqrt{(P^*G)/4Pi^*S}$

From the maximum EUT RF output power, as well as the gain of the used antenna, according to the RF power density limit above, the minimum distance between the antenna and human body will be calculated.

3. Calculated Result

3.1 For downlink: 728MHz to 757MHz

LTE:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.4	43651.5832	2.443	159.1305
Middle	12.5	17.8	46.2	41686.9383	2.475	154.4997
Highest	12.5	17.8	46.3	42657.9519	2.507	155.2880



Application No.: GZEM1303000863RF Page: 3 of 5 FCC ID: OJFGXCPLA-40

3.2 For downlink: 869MHz to 894MHz:

GSM:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.1	40738.0277	2.899	141.1208
Middle	12.5	17.8	46.5	44668.3592	2.938	146.7876
Highest	12.5	17.8	46.4	43651.5832	2.978	144.1295

CDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.2	41686.9383	2.903	142.6565
Middle	12.5	17.8	46.4	43651.5832	2.938	145.1073
Highest	12.5	17.8	46.5	44668.3592	2.973	145.9210

WCDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.3	42657.9519	2.907	144.2091
Middle	12.5	17.8	46.2	41686.9383	2.938	141.8043
Highest	12.5	17.8	46.5	44668.3592	2.970	145.9947

LTE:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.3	42657.9519	2.913	144.0605
Middle	12.5	17.8	46.2	41686.9383	2.938	141.8043
Highest	12.5	17.8	46.4	43651.5832	2.963	144.4938

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdicitor is issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its instructions. If any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document of forders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Application No.: GZEM1303000863RF Page: 4 of 5 FCC ID: OJFGXCPLA-40

3.3 For downlink: 1930MHz \sim 1995MHz

GSM:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.4	43651.5832	5.0	111.2321
Middle	12.5	17.8	46.3	42657.9519	5.0	109.9588
Highest	12.5	17.8	46.5	44668.3592	5.0	112.5201

CDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.2	41686.9383	5.0	108.7002
Middle	12.5	17.8	46.3	42657.9519	5.0	109.9588
Highest	12.5	17.8	46.5	44668.3592	5.0	112.5201

WCDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.6	45708.8189	5.0	113.8230
Middle	12.5	17.8	46.3	42657.9519	5.0	109.9588
Highest	12.5	17.8	46.1	40738.0277	5.0	107.4559

LTE:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.2	41686.9383	5.0	108.7002
Middle	12.5	17.8	46.4	43651.5832	5.0	111.2321
Highest	12.5	17.8	46.5	44668.3592	5.0	112.5201

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> e-document.htm. Attention is drawn to the limitation of liability, indemnification and jurisdicitor is issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its instructions. If any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document of forders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.



Application No.: GZEM1303000863RF Page: 5 of 5 FCC ID: OJFGXCPLA-40

3.4 For downlink: 2110 MHz to 2155MHz

CDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.4	43651.5832	5.0	111.2321
Middle	12.5	17.8	46.3	42657.9519	5.0	109.9588
Highest	12.5	17.8	46.1	40738.0277	5.0	107.4559

WCDMA:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.2	41686.9383	5.0	108.7002
Middle	12.5	17.8	46.3	42657.9519	5.0	109.9588
Highest	12.5	17.8	46.4	43651.5832	5.0	111.2321

LTE:

Frequency (MHz) F	Maximum Antenna Gain (dBi)	Maximum Antenna Gain (Numeric)	Peak Output Power (dBm)	Peak Output Power (mW)	Limit of Power Density (S) (mW/cm ²)	Minimum Distance to human body (cm)
Lowest	12.5	17.8	46.3	42657.9519	5.0	109.9588
Middle	12.5	17.8	46.2	41686.9383	5.0	108.7002
Highest	12.5	17.8	46.1	40738.0277	5.0	107.4559

Conclusion:

So the recommend use distance away from EUT external antenna is larger than 1.5913 meter.

This document is issued by the Company subject to its General Conditions of Service printed overleaf, available on request or accessible at <u>www.sgs.com/terms and conditions.htm</u> and, for electronic format documents, subject to Terms and Conditions for Electronic Documents at <u>www.sgs.com/terms</u> edocument.htm. Attention is drawn to the limitation of liability, indemnification and jurisdiction issues defined therein. Any holder of this document is advised that information contained hereon reflects the Company's findings at the time of its instruction only and within the limits of Client's instructions, if any. The Company's sole responsibility is to its Client and this document does not exonerate parties to a transaction from exercising all their rights and obligations under the transaction documents. This document cannot be reproduced except in full, without prior written approval of the Company. Any unauthorized alteration, forgery or falsification of the content or appearance of this document to unlawful and offenders may be prosecuted to the fullest extent of the law. Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 90 days only.