

# ICNIRP Measurement Report

This report presents the results of measurements of electromagnetic field emission levels in the vicinity of mobile base stations. Results are presented as percentages of the power density reference levels for general public exposure in the 1998 edition of the Guidelines published by the International Commission on Non-Ionizing Radiation Protection (ICNIRP)<sup>1</sup>, with figures provided for individual frequency bands used for base station (downlink) transmissions as well as an overall figure for all other frequency bands between 30 MHz to 6 GHz. The total percentage equals the sum of all individual percentages.

The power density reference levels in the ICNIRP Guidelines are the root mean square (rms) values averaged over six minutes. In this report, we have measured the average E-field strength over a six-minute period in each measurement location.

We have applied a measurement threshold of 3dB above the system noise floor<sup>2</sup> of the measurement equipment, below which any E-field strength levels measured are deemed not sufficiently above the system noise floor to be valid. In the results tables below, measurement results are shown to a precision of four decimal places. Results which are not sufficiently above the system noise floor to record as a valid measurement are shown as a dash (-). Results which are too small to register to four decimal places are shown as 0.0000%.

<b>Date of Survey:</b>	17/12/2025	<b>Time Survey completed:</b>	14:30
<b>Survey address:</b>	London IG8		

	Measurement equipment	Serial number	Calibration Date
<b>Meter</b>	Keysight Fieldfox N9915A Spectrum Analyser	MY58311497	28/08/2025
<b>Probe</b>	Agos Aria-6000 Antenna	ARIA-6000-1023	08/07/2025
<b>Cabling</b>	1.7m cable	1407	08/07/2025

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<sup>1</sup> <https://www.icnirp.org/cms/upload/publications/ICNIRPemfgdl.pdf>

<sup>2</sup> The noise floor of the measurement equipment is the level of background noise that is present before detecting any external signals. In other words, it indicates the absolute minimum level of detectable signals.

## Broadcast bands covered by this report

Frequency Band	Frequency Range	Technology*
	87.5-108 MHz	FM Radio
	174-230 MHz	DAB
	470-694 MHz	Digital TV

## Mobile bands covered by this report

Frequency Band	Frequency Range	Technology*
700 MHz	738-788 MHz	4G, 5G
800 MHz	791-821 MHz	4G
900 MHz	925-960 MHz	2G, 3G, 4G
1400 MHz	1452-1492 MHz	4G (Supplementary downlink)
1800 MHz	1805-1880 MHz	2G, 4G
1900 MHz	1900-1920 MHz	4G
2100 MHz	2110-2170 MHz	3G, 4G
2300 MHz	2350-2390 MHz	4G
2600 MHz TDD	2570-2620 MHz	4G
2600 MHz FDD	2620-2690 MHz	4G
3.4 GHz	3410-3680 MHz	5G, 4G
3.8 GHz	3680-4200 MHz	Various
Others**		

\* This is an indication of the type of technologies typically deployed in these bands; not all frequency bands and technologies may be in use at all locations. \*\* All other frequencies between 30 MHz and 6 GHz.

## Survey locations

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The survey was conducted within the area shown in the map below. Measurements were taken at five locations and are presented in the following pages of this report.



**Location 1**

<b>Measurement time:</b>	<b>13:52</b>
<b>Frequency band</b>	<b>Percentage of the ICNIRP reference levels for general public exposure</b>
87.5-108 MHz	<b>0.00633</b>
174-230 MHz	0.00721
470-694 MHz	0.00583
700 MHz	0.00310
800 MHz	0.08211
900 MHz	0.01330
1400 MHz	0.01146
1800 MHz	0.01334
1900 MHz	0.00013
2100 MHz	0.01552
2300 MHz	0.00314
2600 MHz TDD	0.00028
2600 MHz FDD	0.00264
3.4 GHz	0.02328
3.8 GHz	0.00396
Others	0.09680
<b>Total</b>	<b>0.28844</b>

## Location 2

Measurement time:	14:01
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00641
174-230 MHz	0.00730
470-694 MHz	0.00588
700 MHz	0.00177
800 MHz	0.01784
900 MHz	0.00617
1400 MHz	0.02851
1800 MHz	0.01266
1900 MHz	0.00014
2100 MHz	0.02403
2300 MHz	0.00088
2600 MHz TDD	0.00029
2600 MHz FDD	0.00638
3.4 GHz	0.01519
3.8 GHz	0.00436
Others	0.09821
<b>Total</b>	<b>0.23600</b>

### Location 3

Measurement time:	14:08
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00642
174-230 MHz	0.00737
470-694 MHz	0.00594
700 MHz	0.00086
800 MHz	0.00410
900 MHz	0.00912
1400 MHz	0.00124
1800 MHz	0.00549
1900 MHz	0.00014
2100 MHz	0.01885
2300 MHz	0.00126
2600 MHz TDD	0.00028
2600 MHz FDD	0.00257
3.4 GHz	0.00426
3.8 GHz	0.00369
Others	0.09970
<b>Total</b>	<b>0.17127</b>

#### Location 4

Measurement time:	14:15
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00643
174-230 MHz	0.00739
470-694 MHz	0.00596
700 MHz	0.00087
800 MHz	0.01649
900 MHz	0.01315
1400 MHz	0.00044
1800 MHz	0.00704
1900 MHz	0.00014
2100 MHz	0.01237
2300 MHz	0.00166
2600 MHz TDD	0.00033
2600 MHz FDD	0.01089
3.4 GHz	0.00266
3.8 GHz	0.00346
Others	0.09965
<b>Total</b>	<b>0.18894</b>

## Location 5

Measurement time:	14:24
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00645
174-230 MHz	0.00741
470-694 MHz	0.00595
700 MHz	0.00193
800 MHz	0.02374
900 MHz	0.00866
1400 MHz	0.01849
1800 MHz	0.01289
1900 MHz	0.00014
2100 MHz	0.02300
2300 MHz	0.00242
2600 MHz TDD	0.00030
2600 MHz FDD	0.00331
3.4 GHz	0.01726
3.8 GHz	0.00394
Others	0.09971
<b>Total</b>	<b>0.23558</b>

*Disclaimer: The results detailed in this report apply only to the tests made at the reported time, using the test equipment detailed. They do not indicate that on another date an identical set of results would be achieved, due to changes in local environmental conditions or other factors which may or may not have an effect on the measurement results obtained at that future time.*