

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)¹, 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 floor² 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%.

Date of Survey:	06/11/2025	Time Survey completed:	15:15
Survey address:	London NW9		

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

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

² 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

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

Measurement time:	14:34
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00743
174-230 MHz	0.00848
470-694 MHz	0.00672
700 MHz	0.02637
800 MHz	0.04491
900 MHz	0.04124
1400 MHz	0.00170
1800 MHz	0.00071
1900 MHz	0.00016
2100 MHz	0.00247
2300 MHz	0.00080
2600 MHz TDD	0.00031
2600 MHz FDD	0.00036
3.4 GHz	0.00187
3.8 GHz	0.00477
Others	0.11604
Total	0.26433

Location 2

Measurement time:	14:43
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00752
174-230 MHz	0.00860
470-694 MHz	0.00695
700 MHz	0.00446
800 MHz	0.01052
900 MHz	0.03246
1400 MHz	0.00086
1800 MHz	0.00090
1900 MHz	0.00016
2100 MHz	0.00515
2300 MHz	0.00140
2600 MHz TDD	0.00030
2600 MHz FDD	0.00042
3.4 GHz	0.00178
3.8 GHz	0.00516
Others	0.11607
Total	0.20271

Location 3

Measurement time:	14:50
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00763
174-230 MHz	0.00864
470-694 MHz	0.00735
700 MHz	0.00143
800 MHz	0.00949
900 MHz	0.04389
1400 MHz	0.00146
1800 MHz	0.00094
1900 MHz	0.00016
2100 MHz	0.00450
2300 MHz	0.00160
2600 MHz TDD	0.00037
2600 MHz FDD	0.00357
3.4 GHz	0.00211
3.8 GHz	0.00491
Others	0.11816
Total	0.21620

Location 4

Measurement time:	14:58
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00764
174-230 MHz	0.00872
470-694 MHz	0.00693
700 MHz	0.00123
800 MHz	0.01547
900 MHz	0.05196
1400 MHz	0.00241
1800 MHz	0.00106
1900 MHz	0.00016
2100 MHz	0.01127
2300 MHz	0.00186
2600 MHz TDD	0.00038
2600 MHz FDD	0.00246
3.4 GHz	0.00208
3.8 GHz	0.00599
Others	0.11786
Total	0.23749

Location 5

Measurement time:	15:09
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00769
174-230 MHz	0.00883
470-694 MHz	0.00692
700 MHz	0.00973
800 MHz	0.01787
900 MHz	0.04593
1400 MHz	0.00183
1800 MHz	0.00113
1900 MHz	0.00016
2100 MHz	0.00321
2300 MHz	0.00088
2600 MHz TDD	0.00031
2600 MHz FDD	0.00040
3.4 GHz	0.00201
3.8 GHz	0.00600
Others	0.12027
Total	0.23318

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.