

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:	11/11/2025	Time Survey completed:	15:31
Survey address:	London N3		

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:	14:49
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00585
174-230 MHz	0.00671
470-694 MHz	0.00548
700 MHz	0.01067
800 MHz	0.02441
900 MHz	0.00840
1400 MHz	0.00654
1800 MHz	0.00585
1900 MHz	0.00012
2100 MHz	0.00453
2300 MHz	0.00054
2600 MHz TDD	0.00033
2600 MHz FDD	0.00338
3.4 GHz	0.00215
3.8 GHz	0.00306
Others	0.08918
Total	0.17720

Location 2

Measurement time:	14:56
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00620
174-230 MHz	0.00699
470-694 MHz	0.00565
700 MHz	0.00525
800 MHz	0.07042
900 MHz	0.02371
1400 MHz	0.02773
1800 MHz	0.01231
1900 MHz	0.00013
2100 MHz	0.01022
2300 MHz	0.00598
2600 MHz TDD	0.00049
2600 MHz FDD	0.00757
3.4 GHz	0.00377
3.8 GHz	0.00352
Others	0.09354
Total	0.28348

Location 3

Measurement time:	15:03
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00628
174-230 MHz	0.00719
470-694 MHz	0.00583
700 MHz	0.00669
800 MHz	0.05686
900 MHz	0.00381
1400 MHz	0.00653
1800 MHz	0.00194
1900 MHz	0.00013
2100 MHz	0.00207
2300 MHz	0.00061
2600 MHz TDD	0.00025
2600 MHz FDD	0.00055
3.4 GHz	0.00312
3.8 GHz	0.00341
Others	0.09618
Total	0.20145

Location 4

Measurement time:	15:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00650
174-230 MHz	0.00743
470-694 MHz	0.00596
700 MHz	0.08453
800 MHz	0.04088
900 MHz	0.00291
1400 MHz	0.02317
1800 MHz	0.02233
1900 MHz	0.00014
2100 MHz	0.01088
2300 MHz	0.00074
2600 MHz TDD	0.00026
2600 MHz FDD	0.00100
3.4 GHz	0.00249
3.8 GHz	0.00366
Others	0.10002
Total	0.31290

Location 5

Measurement time:	15:25
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00675
174-230 MHz	0.00773
470-694 MHz	0.00616
700 MHz	0.02287
800 MHz	0.02548
900 MHz	0.00650
1400 MHz	0.00539
1800 MHz	0.00396
1900 MHz	0.00014
2100 MHz	0.00321
2300 MHz	0.00055
2600 MHz TDD	0.00045
2600 MHz FDD	0.00513
3.4 GHz	0.00265
3.8 GHz	0.00365
Others	0.10347
Total	0.20409

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.