

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:	12/03/2026	Time Survey completed:	11:36
Survey address:	Watford WD17		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072614	21/07/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1023	08/07/2025
Cabling	1.7m cable	1188	02/02/2026

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

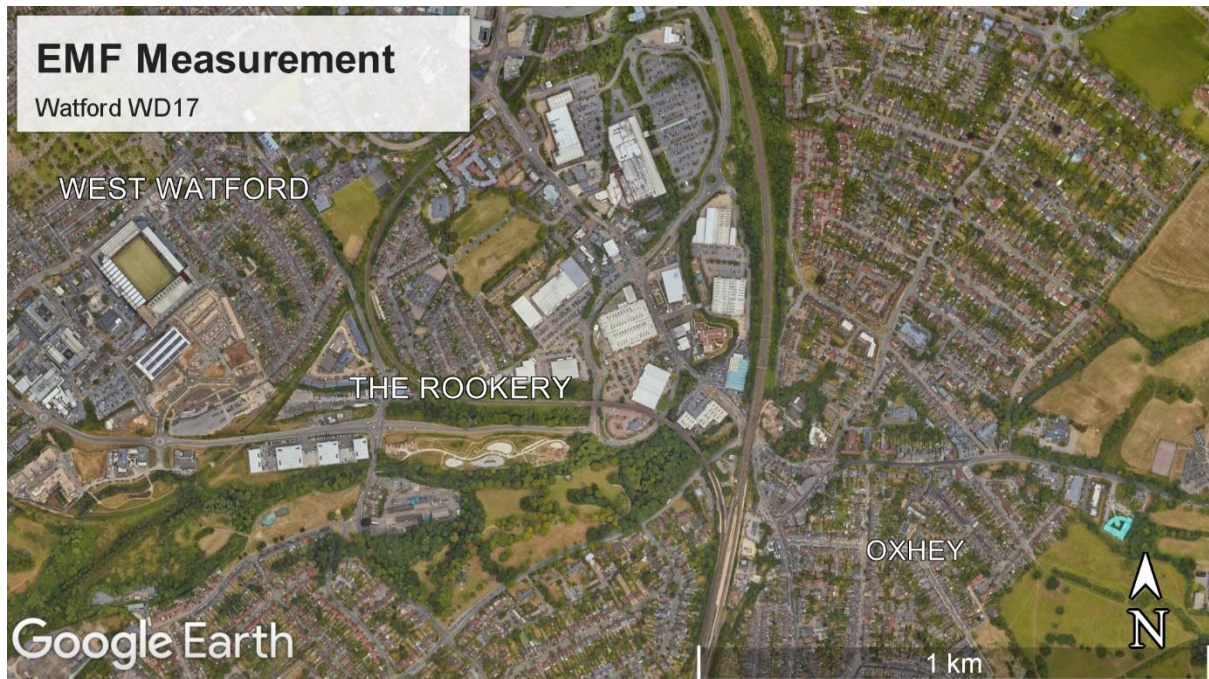
Mobile bands covered by this report

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:	10:23
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00219
174-230 MHz	0.00180
470-694 MHz	0.00164
700 MHz	0.00207
800 MHz	0.00554
900 MHz	0.01682
1400 MHz	0.00589
1800 MHz	0.00604
1900 MHz	0.00004
2100 MHz	0.01512
2300 MHz	0.00753
2600 MHz TDD	0.00024
2600 MHz FDD	0.00419
3.4 GHz	0.00095
3.8 GHz	0.00203
Others	0.03069
Total	0.10279

Location 2

Measurement time:	11:07
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00243
174-230 MHz	0.00198
470-694 MHz	0.00181
700 MHz	0.00303
800 MHz	0.00429
900 MHz	0.01685
1400 MHz	0.00177
1800 MHz	0.00987
1900 MHz	0.00005
2100 MHz	0.00719
2300 MHz	0.00295
2600 MHz TDD	0.00023
2600 MHz FDD	0.00258
3.4 GHz	0.00144
3.8 GHz	0.00298
Others	0.03394
Total	0.09337

Location 3

Measurement time:	11:14
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00246
174-230 MHz	0.00198
470-694 MHz	0.00181
700 MHz	0.00191
800 MHz	0.00412
900 MHz	0.00883
1400 MHz	0.00143
1800 MHz	0.00751
1900 MHz	0.00005
2100 MHz	0.01081
2300 MHz	0.00432
2600 MHz TDD	0.00011
2600 MHz FDD	0.00062
3.4 GHz	0.00094
3.8 GHz	0.00182
Others	0.03342
Total	0.08212

Location 4

Measurement time:	11:23
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00250
174-230 MHz	0.00203
470-694 MHz	0.00186
700 MHz	0.00242
800 MHz	0.00210
900 MHz	0.01265
1400 MHz	0.00287
1800 MHz	0.00432
1900 MHz	0.00005
2100 MHz	0.00535
2300 MHz	0.00411
2600 MHz TDD	0.00017
2600 MHz FDD	0.00196
3.4 GHz	0.00099
3.8 GHz	0.00216
Others	0.03470
Total	0.08024

Location 5

Measurement time:	11:30
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00258
174-230 MHz	0.00209
470-694 MHz	0.00192
700 MHz	0.00170
800 MHz	0.00409
900 MHz	0.03394
1400 MHz	0.00454
1800 MHz	0.00555
1900 MHz	0.00005
2100 MHz	0.01368
2300 MHz	0.00784
2600 MHz TDD	0.00023
2600 MHz FDD	0.00297
3.4 GHz	0.00115
3.8 GHz	0.00256
Others	0.03749
Total	0.12240

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.