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 floor[2] 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:	25/08/2026	**Time Survey completed:**	10:21
Survey address:	Westhoughton BL5		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	US55240265	31/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025
Cabling	1.7m cable	2072	18/02/2026

[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 seven locations and are presented in the following pages of this report.



Location 1

Measurement time:	09:18
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00736
174-230 MHz	0.00654
470-694 MHz	0.00537
700 MHz	0.01020
800 MHz	0.00759
900 MHz	0.00250
1400 MHz	0.00581
1800 MHz	0.01341
1900 MHz	0.00009
2100 MHz	0.00515
2300 MHz	0.00020
2600 MHz TDD	0.00021
2600 MHz FDD	0.00074
3.4 GHz	0.00096
3.8 GHz	0.00188
Others	0.08464
Total	**0.15266**

Location 2

Measurement time:	09:25
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00770
174-230 MHz	0.00702
470-694 MHz	0.00587
700 MHz	0.01802
800 MHz	0.02871
900 MHz	0.00175
1400 MHz	0.00712
1800 MHz	0.00333
1900 MHz	0.00010
2100 MHz	0.00167
2300 MHz	0.00022
2600 MHz TDD	0.00023
2600 MHz FDD	0.00046
3.4 GHz	0.00129
3.8 GHz	0.00210
Others	0.09125
Total	**0.17684**

Location 3

Measurement time:	09:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00819
174-230 MHz	0.00742
470-694 MHz	0.00580
700 MHz	0.03057
800 MHz	0.18994
900 MHz	0.00806
1400 MHz	0.00475
1800 MHz	0.00662
1900 MHz	0.00010
2100 MHz	0.00212
2300 MHz	0.00024
2600 MHz TDD	0.00025
2600 MHz FDD	0.00325
3.4 GHz	0.00172
3.8 GHz	0.00232
Others	0.09690
Total	**0.36825**

Location 4

Measurement time:	09:49
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00885
174-230 MHz	0.00804
470-694 MHz	0.00625
700 MHz	0.01252
800 MHz	0.12016
900 MHz	0.00545
1400 MHz	0.00504
1800 MHz	0.00733
1900 MHz	0.00011
2100 MHz	0.00571
2300 MHz	0.00026
2600 MHz TDD	0.00028
2600 MHz FDD	0.00102
3.4 GHz	0.00244
3.8 GHz	0.00261
Others	0.10517
Total	**0.29125**

Location 5

Measurement time:	09:57
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00923
174-230 MHz	0.00826
470-694 MHz	0.00642
700 MHz	0.01559
800 MHz	0.07783
900 MHz	0.02183
1400 MHz	0.02319
1800 MHz	0.02008
1900 MHz	0.00012
2100 MHz	0.01700
2300 MHz	0.00027
2600 MHz TDD	0.00032
2600 MHz FDD	0.00187
3.4 GHz	0.00242
3.8 GHz	0.00270
Others	0.10890
Total	**0.31602**

Location 6

Measurement time:	10:06
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00937
174-230 MHz	0.00877
470-694 MHz	0.00668
700 MHz	0.00663
800 MHz	0.16574
900 MHz	0.00124
1400 MHz	0.00233
1800 MHz	0.02923
1900 MHz	0.00012
2100 MHz	0.00356
2300 MHz	0.00028
2600 MHz TDD	0.00029
2600 MHz FDD	0.00128
3.4 GHz	0.00191
3.8 GHz	0.00281
Others	0.11114
Total	**0.35136**

Location 7

Measurement time:	10:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00940
174-230 MHz	0.00855
470-694 MHz	0.00691
700 MHz	0.00742
800 MHz	0.00983
900 MHz	0.00297
1400 MHz	0.00577
1800 MHz	0.00950
1900 MHz	0.00012
2100 MHz	0.00678
2300 MHz	0.00028
2600 MHz TDD	0.00029
2600 MHz FDD	0.00059
3.4 GHz	0.00138
3.8 GHz	0.00278
Others	0.11317
Total	**0.18574**

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.