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:	09/09/2026	**Time Survey completed:**	13:19
Survey address:	Walsall WS1		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072606	30/06/2026
Probe	Agos Aria-6000 Antenna	AGOS-6000-1158	08/07/2025
Cabling	1.7m cable	1458	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:	11:35
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02632
174-230 MHz	0.01606
470-694 MHz	0.01014
700 MHz	0.00194
800 MHz	0.02231
900 MHz	0.00759
1400 MHz	0.00073
1800 MHz	0.00411
1900 MHz	0.00026
2100 MHz	0.02077
2300 MHz	0.00045
2600 MHz TDD	0.00062
2600 MHz FDD	0.00329
3.4 GHz	0.00210
3.8 GHz	0.00452
Others	0.23664
Total	**0.35786**

Location 2

Measurement time:	11:53
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02810
174-230 MHz	0.01709
470-694 MHz	0.01091
700 MHz	0.00208
800 MHz	0.00130
900 MHz	0.00075
1400 MHz	0.00296
1800 MHz	0.00144
1900 MHz	0.00028
2100 MHz	0.00121
2300 MHz	0.00049
2600 MHz TDD	0.00047
2600 MHz FDD	0.00023
3.4 GHz	0.00237
3.8 GHz	0.00503
Others	0.25802
Total	**0.33274**

Location 3

Measurement time:	12:22
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03226
174-230 MHz	0.01960
470-694 MHz	0.01234
700 MHz	0.00149
800 MHz	0.00081
900 MHz	0.00073
1400 MHz	0.00070
1800 MHz	0.00107
1900 MHz	0.00032
2100 MHz	0.00084
2300 MHz	0.00057
2600 MHz TDD	0.00054
2600 MHz FDD	0.00023
3.4 GHz	0.00255
3.8 GHz	0.00595
Others	0.29567
Total	**0.37567**

Location 4

Measurement time:	12:48
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03704
174-230 MHz	0.02001
470-694 MHz	0.01288
700 MHz	0.00150
800 MHz	0.00083
900 MHz	0.00071
1400 MHz	0.00063
1800 MHz	0.00101
1900 MHz	0.00033
2100 MHz	0.00082
2300 MHz	0.00057
2600 MHz TDD	0.00055
2600 MHz FDD	0.00023
3.4 GHz	0.00257
3.8 GHz	0.00608
Others	0.30153
Total	**0.38729**

Location 5

Measurement time:	13:13
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03313
174-230 MHz	0.02048
470-694 MHz	0.01268
700 MHz	0.00231
800 MHz	0.03015
900 MHz	0.00852
1400 MHz	0.00095
1800 MHz	0.00386
1900 MHz	0.00034
2100 MHz	0.02377
2300 MHz	0.00058
2600 MHz TDD	0.00072
2600 MHz FDD	0.00384
3.4 GHz	0.00278
3.8 GHz	0.00623
Others	0.30825
Total	**0.45859**

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.