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:	10/07/2026	**Time Survey completed:**	10:50
Survey address:	Worcester WR5		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072611	13/01/2026
Probe	Agos Aria-6000 Antenna	AGOS-6000-1117	08/07/2025
Cabling	1.7m cable	1460	20/11/2025

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



Location 1

Measurement time:	09:54
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02796
174-230 MHz	0.01420
470-694 MHz	0.01066
700 MHz	0.00225
800 MHz	0.00255
900 MHz	0.00077
1400 MHz	0.00059
1800 MHz	0.00909
1900 MHz	0.00026
2100 MHz	0.00081
2300 MHz	0.00061
2600 MHz TDD	0.00052
2600 MHz FDD	0.00027
3.4 GHz	0.00292
3.8 GHz	0.00713
Others	0.19577
Total	**0.27636**

Location 2

Measurement time:	10:02
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01510
174-230 MHz	0.01484
470-694 MHz	0.01126
700 MHz	0.00373
800 MHz	0.00684
900 MHz	0.00079
1400 MHz	0.00062
1800 MHz	0.02066
1900 MHz	0.00028
2100 MHz	0.00112
2300 MHz	0.00064
2600 MHz TDD	0.00055
2600 MHz FDD	0.00028
3.4 GHz	0.00311
3.8 GHz	0.00764
Others	0.20412
Total	**0.29158**

Location 3

Measurement time:	10:13
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01409
174-230 MHz	0.01541
470-694 MHz	0.01168
700 MHz	0.00672
800 MHz	0.01343
900 MHz	0.00081
1400 MHz	0.00065
1800 MHz	0.01408
1900 MHz	0.00030
2100 MHz	0.00147
2300 MHz	0.00067
2600 MHz TDD	0.00058
2600 MHz FDD	0.00030
3.4 GHz	0.00333
3.8 GHz	0.00811
Others	0.21638
Total	**0.30803**

Location 4

Measurement time:	10:24
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01464
174-230 MHz	0.01623
470-694 MHz	0.01212
700 MHz	0.00434
800 MHz	0.00686
900 MHz	0.00084
1400 MHz	0.00067
1800 MHz	0.00274
1900 MHz	0.00031
2100 MHz	0.00091
2300 MHz	0.00070
2600 MHz TDD	0.00060
2600 MHz FDD	0.00032
3.4 GHz	0.00347
3.8 GHz	0.00851
Others	0.22540
Total	**0.29867**

Location 5

Measurement time:	10:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.07463
174-230 MHz	0.01639
470-694 MHz	0.01222
700 MHz	0.00399
800 MHz	0.00545
900 MHz	0.00085
1400 MHz	0.00069
1800 MHz	0.05417
1900 MHz	0.00031
2100 MHz	0.00164
2300 MHz	0.00072
2600 MHz TDD	0.00061
2600 MHz FDD	0.00032
3.4 GHz	0.00353
3.8 GHz	0.00860
Others	0.23720
Total	**0.42132**

Location 6

Measurement time:	10:44
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.02835
174-230 MHz	0.01696
470-694 MHz	0.01275
700 MHz	0.00322
800 MHz	0.00411
900 MHz	0.00093
1400 MHz	0.00071
1800 MHz	0.01296
1900 MHz	0.00032
2100 MHz	0.00095
2300 MHz	0.00075
2600 MHz TDD	0.00063
2600 MHz FDD	0.00033
3.4 GHz	0.00369
3.8 GHz	0.00899
Others	0.23812
Total	**0.33377**

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.