

1 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:	21/04/2026	Time Survey completed:	15:36
Survey address:	Wellingborough NN8		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	11/12/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1023	08/07/2025
Cabling	1.7m cable	1188	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:	14:39
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01968
174-230 MHz	0.02199
470-694 MHz	0.01696
700 MHz	0.00559
800 MHz	0.01630
900 MHz	0.00143
1400 MHz	0.00813
1800 MHz	0.02468
1900 MHz	0.00043
2100 MHz	0.00527
2300 MHz	0.00094
2600 MHz TDD	0.00076
2600 MHz FDD	0.00033
3.4 GHz	0.00435
3.8 GHz	0.00874
Others	0.28329
Total	0.41888

Location 2

Measurement time:	14:53
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01837
174-230 MHz	0.02036
470-694 MHz	0.01575
700 MHz	0.00403
800 MHz	0.00598
900 MHz	0.00153
1400 MHz	0.01325
1800 MHz	0.00852
1900 MHz	0.00041
2100 MHz	0.00781
2300 MHz	0.00096
2600 MHz TDD	0.00070
2600 MHz FDD	0.00031
3.4 GHz	0.00489
3.8 GHz	0.00800
Others	0.26170
Total	0.37256

Location 3

Measurement time:	15:06
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01710
174-230 MHz	0.01922
470-694 MHz	0.01492
700 MHz	0.00345
800 MHz	0.00416
900 MHz	0.00312
1400 MHz	0.00587
1800 MHz	0.02322
1900 MHz	0.00038
2100 MHz	0.00426
2300 MHz	0.00101
2600 MHz TDD	0.00066
2600 MHz FDD	0.00029
3.4 GHz	0.00360
3.8 GHz	0.00742
Others	0.24538
Total	0.35407

Location 4

Measurement time:	15:19
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01636
174-230 MHz	0.01856
470-694 MHz	0.01444
700 MHz	0.00467
800 MHz	0.01371
900 MHz	0.00129
1400 MHz	0.02304
1800 MHz	0.03160
1900 MHz	0.00036
2100 MHz	0.00813
2300 MHz	0.00079
2600 MHz TDD	0.00063
2600 MHz FDD	0.00027
3.4 GHz	0.00450
3.8 GHz	0.00705
Others	0.23435
Total	0.37976

Location 5

Measurement time:	15:30
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01625
174-230 MHz	0.01807
470-694 MHz	0.01430
700 MHz	0.00592
800 MHz	0.01861
900 MHz	0.00124
1400 MHz	0.00906
1800 MHz	0.03485
1900 MHz	0.00035
2100 MHz	0.00386
2300 MHz	0.00081
2600 MHz TDD	0.00062
2600 MHz FDD	0.00027
3.4 GHz	0.00353
3.8 GHz	0.00692
Others	0.22993
Total	0.36459

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.