

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:	12/05/2026	Time Survey completed:	15:45
Survey address:	Whittlesey PE7		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	11/12/2025
Probe	Agos Aria-6000 Antenna	AGOS-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:	14:13
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01393
174-230 MHz	0.01562
470-694 MHz	0.01238
700 MHz	0.01871
800 MHz	0.06348
900 MHz	0.04917
1400 MHz	0.00235
1800 MHz	0.00455
1900 MHz	0.00031
2100 MHz	0.01561
2300 MHz	0.00062
2600 MHz TDD	0.00053
2600 MHz FDD	0.00022
3.4 GHz	0.00259
3.8 GHz	0.00574
Others	0.19887
Total	0.40467

Location 2

Measurement time:	14:24
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01430
174-230 MHz	0.01597
470-694 MHz	0.01259
700 MHz	0.00801
800 MHz	0.03105
900 MHz	0.00915
1400 MHz	0.00577
1800 MHz	0.01077
1900 MHz	0.00031
2100 MHz	0.03352
2300 MHz	0.00064
2600 MHz TDD	0.00055
2600 MHz FDD	0.00023
3.4 GHz	0.00297
3.8 GHz	0.00592
Others	0.20574
Total	0.35748

Location 3

Measurement time:	14:55
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01589
174-230 MHz	0.01765
470-694 MHz	0.01378
700 MHz	0.00983
800 MHz	0.02687
900 MHz	0.02347
1400 MHz	0.01301
1800 MHz	0.01217
1900 MHz	0.00035
2100 MHz	0.00619
2300 MHz	0.00070
2600 MHz TDD	0.00061
2600 MHz FDD	0.00026
3.4 GHz	0.00392
3.8 GHz	0.00665
Others	0.23627
Total	0.38761

Location 4

Measurement time:	15:08
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01615
174-230 MHz	0.01749
470-694 MHz	0.01376
700 MHz	0.02613
800 MHz	0.06969
900 MHz	0.02944
1400 MHz	0.01276
1800 MHz	0.01578
1900 MHz	0.00035
2100 MHz	0.02354
2300 MHz	0.00069
2600 MHz TDD	0.00060
2600 MHz FDD	0.00025
3.4 GHz	0.00377
3.8 GHz	0.00662
Others	0.23817
Total	0.47519

Location 5

Measurement time:	15:39
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01641
174-230 MHz	0.01844
470-694 MHz	0.01429
700 MHz	0.02949
800 MHz	0.04733
900 MHz	0.05427
1400 MHz	0.00173
1800 MHz	0.00536
1900 MHz	0.00036
2100 MHz	0.01273
2300 MHz	0.00073
2600 MHz TDD	0.00063
2600 MHz FDD	0.00027
3.4 GHz	0.00313
3.8 GHz	0.00695
Others	0.23494
Total	0.44704

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.