

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:	28/08/2025	Time Survey completed:	13:55
Survey address:	Weston Favell NN3		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	17/12/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1111	28/11/2022
Cabling	1.7m cable	1313	28/11/2022

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:	12:37
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01671
174-230 MHz	0.01871
470-694 MHz	0.01466
700 MHz	0.00199
800 MHz	0.01516
900 MHz	0.02706
1400 MHz	0.00076
1800 MHz	0.01011
1900 MHz	0.00037
2100 MHz	0.00819
2300 MHz	0.00112
2600 MHz TDD	0.00065
2600 MHz FDD	0.00028
3.4 GHz	0.00314
3.8 GHz	0.00728
Others	0.24033
Total	0.36652

Location 2

Measurement time:	12:49
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01738
174-230 MHz	0.01938
470-694 MHz	0.01501
700 MHz	0.00203
800 MHz	0.01699
900 MHz	0.02528
1400 MHz	0.00079
1800 MHz	0.01616
1900 MHz	0.00038
2100 MHz	0.00280
2300 MHz	0.00158
2600 MHz TDD	0.00067
2600 MHz FDD	0.00028
3.4 GHz	0.00320
3.8 GHz	0.00748
Others	0.24598
Total	0.37540

Location 3

Measurement time:	13:04
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01766
174-230 MHz	0.01971
470-694 MHz	0.01521
700 MHz	0.00207
800 MHz	0.00340
900 MHz	0.01980
1400 MHz	0.00081
1800 MHz	0.00222
1900 MHz	0.00038
2100 MHz	0.00141
2300 MHz	0.00129
2600 MHz TDD	0.00068
2600 MHz FDD	0.00029
3.4 GHz	0.00327
3.8 GHz	0.00763
Others	0.25064
Total	0.34648

Location 4

Measurement time:	13:28
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01850
174-230 MHz	0.02010
470-694 MHz	0.01543
700 MHz	0.00212
800 MHz	0.00321
900 MHz	0.00352
1400 MHz	0.00082
1800 MHz	0.00410
1900 MHz	0.00040
2100 MHz	0.00160
2300 MHz	0.00283
2600 MHz TDD	0.00069
2600 MHz FDD	0.00030
3.4 GHz	0.00334
3.8 GHz	0.00779
Others	0.25621
Total	0.34095

Location 5

Measurement time:	13:49
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01761
174-230 MHz	0.01973
470-694 MHz	0.01528
700 MHz	0.00207
800 MHz	0.05429
900 MHz	0.01738
1400 MHz	0.00080
1800 MHz	0.00907
1900 MHz	0.00038
2100 MHz	0.00388
2300 MHz	0.00109
2600 MHz TDD	0.00067
2600 MHz FDD	0.00029
3.4 GHz	0.00330
3.8 GHz	0.00763
Others	0.25144
Total	0.40494

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.