

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:	30/03/2026	Time Survey completed:	10:32
Survey address:	Hatfield AL10		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072614	21/07/2025
Probe	Agos Aria-6000 Antenna	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:	09:57
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00167
174-230 MHz	0.00139
470-694 MHz	0.00128
700 MHz	0.00361
800 MHz	0.00739
900 MHz	0.00565
1400 MHz	0.00449
1800 MHz	0.00635
1900 MHz	0.00003
2100 MHz	0.00565
2300 MHz	0.00079
2600 MHz TDD	0.00006
2600 MHz FDD	0.00005
3.4 GHz	0.00079
3.8 GHz	0.00151
Others	0.02247
Total	0.06317

Location 2

Measurement time:	10:04
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00182
174-230 MHz	0.00153
470-694 MHz	0.00137
700 MHz	0.03082
800 MHz	0.01784
900 MHz	0.02686
1400 MHz	0.00549
1800 MHz	0.00485
1900 MHz	0.00003
2100 MHz	0.00530
2300 MHz	0.00116
2600 MHz TDD	0.00006
2600 MHz FDD	0.00005
3.4 GHz	0.00156
3.8 GHz	0.00171
Others	0.02490
Total	0.12536

Location 3

Measurement time:	10:11
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00194
174-230 MHz	0.00162
470-694 MHz	0.00145
700 MHz	0.03040
800 MHz	0.01575
900 MHz	0.00649
1400 MHz	0.01169
1800 MHz	0.01041
1900 MHz	0.00004
2100 MHz	0.00598
2300 MHz	0.00080
2600 MHz TDD	0.00007
2600 MHz FDD	0.00006
3.4 GHz	0.00325
3.8 GHz	0.00155
Others	0.02608
Total	0.11756

Location 4

Measurement time:	10:18
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00201
174-230 MHz	0.00165
470-694 MHz	0.00150
700 MHz	0.00373
800 MHz	0.00664
900 MHz	0.00218
1400 MHz	0.00509
1800 MHz	0.00777
1900 MHz	0.00004
2100 MHz	0.00728
2300 MHz	0.00055
2600 MHz TDD	0.00007
2600 MHz FDD	0.00006
3.4 GHz	0.00163
3.8 GHz	0.00163
Others	0.02692
Total	0.06873

Location 5

Measurement time:	10:26
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00201
174-230 MHz	0.00166
470-694 MHz	0.00152
700 MHz	0.00196
800 MHz	0.00721
900 MHz	0.00653
1400 MHz	0.00404
1800 MHz	0.00329
1900 MHz	0.00004
2100 MHz	0.00534
2300 MHz	0.00076
2600 MHz TDD	0.00007
2600 MHz FDD	0.00006
3.4 GHz	0.00120
3.8 GHz	0.00240
Others	0.02725
Total	0.06536

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.