

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:	23/04/2026	Time Survey completed:	14:27
Survey address:	Leicester LE15		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072608	19/02/2026
Probe	Agos Aria-6000 Antenna	ARIA-6000-1158	08/07/2025
Cabling	1.7m cable	1458	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:	13:27
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.02766
174-230 MHz	0.01838
470-694 MHz	0.01153
700 MHz	0.00143
800 MHz	0.00120
900 MHz	0.00074
1400 MHz	0.00057
1800 MHz	0.00330
1900 MHz	0.00030
2100 MHz	0.00097
2300 MHz	0.00052
2600 MHz TDD	0.00051
2600 MHz FDD	0.00085
3.4 GHz	0.00230
3.8 GHz	0.00548
Others	0.27580
Total	0.35154

Location 2

Measurement time:	13:44
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03005
174-230 MHz	0.01982
470-694 MHz	0.01239
700 MHz	0.00149
800 MHz	0.00091
900 MHz	0.00074
1400 MHz	0.00062
1800 MHz	0.00106
1900 MHz	0.00033
2100 MHz	0.00083
2300 MHz	0.00057
2600 MHz TDD	0.00055
2600 MHz FDD	0.00023
3.4 GHz	0.00258
3.8 GHz	0.00610
Others	0.30077
Total	0.37905

Location 3

Measurement time:	13:58
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03094
174-230 MHz	0.02043
470-694 MHz	0.01269
700 MHz	0.00152
800 MHz	0.00081
900 MHz	0.00073
1400 MHz	0.00063
1800 MHz	0.00103
1900 MHz	0.00034
2100 MHz	0.00084
2300 MHz	0.00059
2600 MHz TDD	0.00057
2600 MHz FDD	0.00024
3.4 GHz	0.00266
3.8 GHz	0.00632
Others	0.31025
Total	0.39058

Location 4

Measurement time:	14:10
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03251
174-230 MHz	0.02130
470-694 MHz	0.01319
700 MHz	0.00158
800 MHz	0.00084
900 MHz	0.00074
1400 MHz	0.00066
1800 MHz	0.00109
1900 MHz	0.00036
2100 MHz	0.00089
2300 MHz	0.00062
2600 MHz TDD	0.00060
2600 MHz FDD	0.00025
3.4 GHz	0.00282
3.8 GHz	0.00667
Others	0.32447
Total	0.40856

Location 5

Measurement time:	14:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.03296
174-230 MHz	0.02166
470-694 MHz	0.01339
700 MHz	0.00173
800 MHz	0.00128
900 MHz	0.00080
1400 MHz	0.00068
1800 MHz	0.00174
1900 MHz	0.00036
2100 MHz	0.00100
2300 MHz	0.00063
2600 MHz TDD	0.00061
2600 MHz FDD	0.00084
3.4 GHz	0.00288
3.8 GHz	0.00684
Others	0.33118
Total	0.41858

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.