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 floor[2] 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:	30/07/2025	**Time Survey completed:**	13:34
Survey address:	Hinckley LE10		

Measurement equipment		**Serial number**	**Calibration Date**
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072606	03/07/2025
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 eight locations and are presented in the following pages of this report.

Location 1

Measurement time:	12:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03657
174-230 MHz	0.02347
470-694 MHz	0.01445
700 MHz	0.00335
800 MHz	0.04698
900 MHz	0.02219
1400 MHz	0.00072
1800 MHz	0.00119
1900 MHz	0.00039
2100 MHz	0.00212
2300 MHz	0.00138
2600 MHz TDD	0.00066
2600 MHz FDD	0.00028
3.4 GHz	0.00315
3.8 GHz	0.00827
Others	0.35818
Total	**0.52336**

Location 2

Measurement time:	12:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03490
174-230 MHz	0.02308
470-694 MHz	0.01421
700 MHz	0.00216
800 MHz	0.00457
900 MHz	0.00412
1400 MHz	0.00072
1800 MHz	0.00117
1900 MHz	0.00038
2100 MHz	0.00120
2300 MHz	0.00090
2600 MHz TDD	0.00065
2600 MHz FDD	0.00027
3.4 GHz	0.00307
3.8 GHz	0.00740
Others	0.35094
Total	**0.44976**

Location 3

Measurement time:	12:42
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03522
174-230 MHz	0.02296
470-694 MHz	0.01423
700 MHz	0.00571
800 MHz	0.03256
900 MHz	0.01597
1400 MHz	0.00075
1800 MHz	0.00121
1900 MHz	0.00038
2100 MHz	0.00271
2300 MHz	0.00206
2600 MHz TDD	0.00065
2600 MHz FDD	0.00027
3.4 GHz	0.00307
3.8 GHz	0.00778
Others	0.35124
Total	**0.49678**

Location 4

Measurement time:	12:51
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03516
174-230 MHz	0.02261
470-694 MHz	0.01411
700 MHz	0.00290
800 MHz	0.00459
900 MHz	0.00940
1400 MHz	0.00071
1800 MHz	0.00116
1900 MHz	0.00038
2100 MHz	0.00146
2300 MHz	0.00115
2600 MHz TDD	0.00063
2600 MHz FDD	0.00027
3.4 GHz	0.00303
3.8 GHz	0.00741
Others	0.34799
Total	**0.45297**

Location 5

Measurement time:	13:00
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03430
174-230 MHz	0.02248
470-694 MHz	0.01390
700 MHz	0.00257
800 MHz	0.00428
900 MHz	0.00532
1400 MHz	0.00071
1800 MHz	0.00115
1900 MHz	0.00037
2100 MHz	0.00129
2300 MHz	0.00104
2600 MHz TDD	0.00063
2600 MHz FDD	0.00026
3.4 GHz	0.00297
3.8 GHz	0.00741
Others	0.34281
Total	**0.44151**

Location 6

Measurement time:	13:09
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03429
174-230 MHz	0.02236
470-694 MHz	0.01394
700 MHz	0.00247
800 MHz	0.00259
900 MHz	0.00441
1400 MHz	0.00072
1800 MHz	0.00114
1900 MHz	0.00038
2100 MHz	0.00119
2300 MHz	0.00090
2600 MHz TDD	0.00063
2600 MHz FDD	0.00026
3.4 GHz	0.00297
3.8 GHz	0.00721
Others	0.34143
Total	**0.43687**

Location 7

Measurement time:	13:16
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03480
174-230 MHz	0.02237
470-694 MHz	0.01393
700 MHz	0.00297
800 MHz	0.00375
900 MHz	0.00538
1400 MHz	0.00072
1800 MHz	0.00115
1900 MHz	0.00038
2100 MHz	0.00119
2300 MHz	0.00080
2600 MHz TDD	0.00063
2600 MHz FDD	0.00026
3.4 GHz	0.00297
3.8 GHz	0.00720
Others	0.34193
Total	**0.44044**

Location 8

Measurement time:	13:28
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.03481
174-230 MHz	0.02247
470-694 MHz	0.01396
700 MHz	0.00329
800 MHz	0.04290
900 MHz	0.02556
1400 MHz	0.00070
1800 MHz	0.00113
1900 MHz	0.00038
2100 MHz	0.00269
2300 MHz	0.00159
2600 MHz TDD	0.00063
2600 MHz FDD	0.00026
3.4 GHz	0.00298
3.8 GHz	0.00764
Others	0.34296
Total	**0.50393**

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.