

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:	14/01/2026	Time Survey completed:	12:40
Survey address:	Leeds LS8		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072594	25/11/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1156	08/07/2025
Cabling	1.7m cable	1378	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 six locations and are presented in the following pages of this report.



Location 1

Measurement time:	11:57
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00743
174-230 MHz	0.00872
470-694 MHz	0.00718
700 MHz	0.00160
800 MHz	0.03143
900 MHz	0.01792
1400 MHz	0.00034
1800 MHz	0.00047
1900 MHz	0.00015
2100 MHz	0.00419
2300 MHz	0.00096
2600 MHz TDD	0.00034
2600 MHz FDD	0.00164
3.4 GHz	0.00187
3.8 GHz	0.00401
Others	0.11453
Total	0.20277

Location 2

Measurement time:	12:04
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00797
174-230 MHz	0.00894
470-694 MHz	0.00728
700 MHz	0.00265
800 MHz	0.01121
900 MHz	0.01535
1400 MHz	0.00036
1800 MHz	0.00051
1900 MHz	0.00016
2100 MHz	0.00267
2300 MHz	0.00200
2600 MHz TDD	0.00042
2600 MHz FDD	0.00298
3.4 GHz	0.00197
3.8 GHz	0.00478
Others	0.11790
Total	0.18715

Location 3

Measurement time:	12:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00780
174-230 MHz	0.00915
470-694 MHz	0.00767
700 MHz	0.00356
800 MHz	0.00560
900 MHz	0.02047
1400 MHz	0.00037
1800 MHz	0.00050
1900 MHz	0.00016
2100 MHz	0.00754
2300 MHz	0.00452
2600 MHz TDD	0.00044
2600 MHz FDD	0.00363
3.4 GHz	0.00280
3.8 GHz	0.00491
Others	0.12091
Total	0.20003

Location 4

Measurement time:	12:19
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00786
174-230 MHz	0.00923
470-694 MHz	0.00738
700 MHz	0.00233
800 MHz	0.00467
900 MHz	0.03232
1400 MHz	0.00036
1800 MHz	0.00052
1900 MHz	0.00016
2100 MHz	0.00337
2300 MHz	0.00202
2600 MHz TDD	0.00037
2600 MHz FDD	0.00230
3.4 GHz	0.00206
3.8 GHz	0.00439
Others	0.12066
Total	0.20000

Location 5

Measurement time:	12:26
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00782
174-230 MHz	0.00915
470-694 MHz	0.00737
700 MHz	0.00214
800 MHz	0.00603
900 MHz	0.03519
1400 MHz	0.00035
1800 MHz	0.00067
1900 MHz	0.00016
2100 MHz	0.00255
2300 MHz	0.00115
2600 MHz TDD	0.00037
2600 MHz FDD	0.00198
3.4 GHz	0.00200
3.8 GHz	0.00432
Others	0.12084
Total	0.20209

Location 6

Measurement time:	12:34
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00789
174-230 MHz	0.00921
470-694 MHz	0.00748
700 MHz	0.00206
800 MHz	0.02576
900 MHz	0.02320
1400 MHz	0.00036
1800 MHz	0.00049
1900 MHz	0.00016
2100 MHz	0.00480
2300 MHz	0.00105
2600 MHz TDD	0.00052
2600 MHz FDD	0.00596
3.4 GHz	0.00214
3.8 GHz	0.00442
Others	0.12182
Total	0.21732

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.