

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:	27/10/2025	Time Survey completed:	09:27
Survey address:	Wetherby LS22		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072594	04/11/2024
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:	08:24
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00682
174-230 MHz	0.00813
470-694 MHz	0.00664
700 MHz	0.01781
800 MHz	0.00373
900 MHz	0.00049
1400 MHz	0.00332
1800 MHz	0.00140
1900 MHz	0.00014
2100 MHz	0.00158
2300 MHz	0.00034
2600 MHz TDD	0.00027
2600 MHz FDD	0.00014
3.4 GHz	0.00208
3.8 GHz	0.00356
Others	0.10674
Total	0.16319

Location 2

Measurement time:	08:44
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00745
174-230 MHz	0.00893
470-694 MHz	0.00723
700 MHz	0.00479
800 MHz	0.00496
900 MHz	0.00057
1400 MHz	0.00108
1800 MHz	0.00159
1900 MHz	0.00016
2100 MHz	0.00155
2300 MHz	0.00036
2600 MHz TDD	0.00030
2600 MHz FDD	0.00015
3.4 GHz	0.00182
3.8 GHz	0.00400
Others	0.11837
Total	0.16331

Location 3

Measurement time:	08:53
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00775
174-230 MHz	0.00916
470-694 MHz	0.00741
700 MHz	0.00567
800 MHz	0.00394
900 MHz	0.00127
1400 MHz	0.00107
1800 MHz	0.00099
1900 MHz	0.00016
2100 MHz	0.00096
2300 MHz	0.00039
2600 MHz TDD	0.00031
2600 MHz FDD	0.00016
3.4 GHz	0.00213
3.8 GHz	0.00416
Others	0.12169
Total	0.16725

Location 4

Measurement time:	09:00
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00790
174-230 MHz	0.00939
470-694 MHz	0.00746
700 MHz	0.00603
800 MHz	0.00304
900 MHz	0.00092
1400 MHz	0.00155
1800 MHz	0.00147
1900 MHz	0.00017
2100 MHz	0.00136
2300 MHz	0.00041
2600 MHz TDD	0.00032
2600 MHz FDD	0.00016
3.4 GHz	0.00208
3.8 GHz	0.00425
Others	0.12420
Total	0.17073

Location 5

Measurement time:	09:13
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00827
174-230 MHz	0.00979
470-694 MHz	0.00781
700 MHz	0.00329
800 MHz	0.00160
900 MHz	0.00058
1400 MHz	0.00239
1800 MHz	0.00140
1900 MHz	0.00017
2100 MHz	0.00174
2300 MHz	0.00041
2600 MHz TDD	0.00034
2600 MHz FDD	0.00017
3.4 GHz	0.00245
3.8 GHz	0.00449
Others	0.12940
Total	0.17429

Location 6

Measurement time:	09:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00836
174-230 MHz	0.00996
470-694 MHz	0.00793
700 MHz	0.02144
800 MHz	0.00506
900 MHz	0.00057
1400 MHz	0.00444
1800 MHz	0.00140
1900 MHz	0.00018
2100 MHz	0.00196
2300 MHz	0.00042
2600 MHz TDD	0.00034
2600 MHz FDD	0.00018
3.4 GHz	0.00238
3.8 GHz	0.00459
Others	0.13314
Total	0.20236

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.