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:	28/01/2025	**Time Survey completed:**	14:20
Survey address:	Clitheroe BB7		

Measurement equipment		**Serial number**	**Calibration Date**
Meter	Keysight Fieldfox N9915A Spectrum Analyser	US55240265	17/04/2024
Probe	Agos Aria-6000 Antenna	6000-1024	30/03/2021
Cabling	1.7m cable	1383	12/10/2023

[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 420 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:	13:21
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00914
174-230 MHz	0.00834
470-694 MHz	0.00682
700 MHz	0.00152
800 MHz	0.01147
900 MHz	0.00824
1400 MHz	0.00032
1800 MHz	0.00159
1900 MHz	0.00014
2100 MHz	0.00136
2300 MHz	0.00036
2600 MHz TDD	0.00041
2600 MHz FDD	0.00041
3.4 GHz	0.00341
3.8 GHz	0.00779
Others	0.17113
Total	**0.23245**

Location 2

Measurement time:	13:29
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00891
174-230 MHz	0.00824
470-694 MHz	0.00663
700 MHz	0.00107
800 MHz	0.00302
900 MHz	0.00107
1400 MHz	0.00031
1800 MHz	0.00059
1900 MHz	0.00014
2100 MHz	0.00054
2300 MHz	0.00035
2600 MHz TDD	0.00040
2600 MHz FDD	0.00040
3.4 GHz	0.00330
3.8 GHz	0.00751
Others	0.16122
Total	**0.20371**

Location 3

Measurement time:	13:37
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00898
174-230 MHz	0.00830
470-694 MHz	0.00696
700 MHz	0.00155
800 MHz	0.01657
900 MHz	0.00831
1400 MHz	0.00032
1800 MHz	0.00059
1900 MHz	0.00014
2100 MHz	0.00084
2300 MHz	0.00035
2600 MHz TDD	0.00040
2600 MHz FDD	0.00040
3.4 GHz	0.00334
3.8 GHz	0.00765
Others	0.16368
Total	**0.22839**

Location 4

Measurement time:	13:46
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00920
174-230 MHz	0.00832
470-694 MHz	0.00702
700 MHz	0.00241
800 MHz	0.02115
900 MHz	0.00682
1400 MHz	0.00032
1800 MHz	0.00638
1900 MHz	0.00014
2100 MHz	0.00502
2300 MHz	0.00036
2600 MHz TDD	0.00041
2600 MHz FDD	0.00041
3.4 GHz	0.00340
3.8 GHz	0.00776
Others	0.16497
Total	**0.24409**

Location 5

Measurement time:	14:03
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00920
174-230 MHz	0.00850
470-694 MHz	0.00679
700 MHz	0.00112
800 MHz	0.00585
900 MHz	0.01345
1400 MHz	0.00033
1800 MHz	0.00202
1900 MHz	0.00015
2100 MHz	0.00721
2300 MHz	0.00037
2600 MHz TDD	0.00042
2600 MHz FDD	0.00042
3.4 GHz	0.00346
3.8 GHz	0.00791
Others	0.16964
Total	**0.23682**

Location 6

Measurement time:	14:14
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00893
174-230 MHz	0.00844
470-694 MHz	0.00684
700 MHz	0.00163
800 MHz	0.00723
900 MHz	0.00731
1400 MHz	0.00032
1800 MHz	0.00098
1900 MHz	0.00015
2100 MHz	0.00136
2300 MHz	0.00036
2600 MHz TDD	0.00041
2600 MHz FDD	0.00041
3.4 GHz	0.00340
3.8 GHz	0.00781
Others	0.16964
Total	**0.22523**

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.