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:	14/07/2026	**Time Survey completed:**	12:06
Survey address:	Gloucester GL2		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072612	28/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1117	08/07/2025
Cabling	1.7m cable	1460	20/11/2025

[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 seven locations and are presented in the following pages of this report.



Location 1

Measurement time:	10:40
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00944
174-230 MHz	0.01085
470-694 MHz	0.00857
700 MHz	0.00662
800 MHz	0.01510
900 MHz	0.01130
1400 MHz	0.00298
1800 MHz	0.00276
1900 MHz	0.00021
2100 MHz	0.00168
2300 MHz	0.00081
2600 MHz TDD	0.00057
2600 MHz FDD	0.00053
3.4 GHz	0.00286
3.8 GHz	0.00548
Others	0.14885
Total	**0.22860**

Location 2

Measurement time:	10:49
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01003
174-230 MHz	0.01141
470-694 MHz	0.00901
700 MHz	0.01086
800 MHz	0.02573
900 MHz	0.02898
1400 MHz	0.00254
1800 MHz	0.00430
1900 MHz	0.00021
2100 MHz	0.00253
2300 MHz	0.00072
2600 MHz TDD	0.00064
2600 MHz FDD	0.00078
3.4 GHz	0.00323
3.8 GHz	0.00579
Others	0.15808
Total	**0.27485**

Location 3

Measurement time:	11:01
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01034
174-230 MHz	0.01191
470-694 MHz	0.00931
700 MHz	0.01567
800 MHz	0.05639
900 MHz	0.04429
1400 MHz	0.00494
1800 MHz	0.01682
1900 MHz	0.00023
2100 MHz	0.01613
2300 MHz	0.00152
2600 MHz TDD	0.00062
2600 MHz FDD	0.00177
3.4 GHz	0.00402
3.8 GHz	0.00751
Others	0.16631
Total	**0.36778**

Location 4

Measurement time:	11:17
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01096
174-230 MHz	0.01243
470-694 MHz	0.00969
700 MHz	0.00469
800 MHz	0.00843
900 MHz	0.02275
1400 MHz	0.00124
1800 MHz	0.00290
1900 MHz	0.00023
2100 MHz	0.00539
2300 MHz	0.00116
2600 MHz TDD	0.00073
2600 MHz FDD	0.00197
3.4 GHz	0.00350
3.8 GHz	0.00757
Others	0.17450
Total	**0.26814**

Location 5

Measurement time:	11:34
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01101
174-230 MHz	0.01285
470-694 MHz	0.00999
700 MHz	0.00513
800 MHz	0.01751
900 MHz	0.01560
1400 MHz	0.00271
1800 MHz	0.00321
1900 MHz	0.00024
2100 MHz	0.00552
2300 MHz	0.00206
2600 MHz TDD	0.00133
2600 MHz FDD	0.00125
3.4 GHz	0.00373
3.8 GHz	0.00769
Others	0.17978
Total	**0.27960**

Location 6

Measurement time:	11:48
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01164
174-230 MHz	0.01313
470-694 MHz	0.01015
700 MHz	0.00248
800 MHz	0.01091
900 MHz	0.00924
1400 MHz	0.00295
1800 MHz	0.00170
1900 MHz	0.00025
2100 MHz	0.00160
2300 MHz	0.00114
2600 MHz TDD	0.00069
2600 MHz FDD	0.00045
3.4 GHz	0.00425
3.8 GHz	0.00762
Others	0.18490
Total	**0.26311**

Location 7

Measurement time:	12:00
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01156
174-230 MHz	0.01315
470-694 MHz	0.01016
700 MHz	0.00913
800 MHz	0.01781
900 MHz	0.01053
1400 MHz	0.00261
1800 MHz	0.00220
1900 MHz	0.00025
2100 MHz	0.00157
2300 MHz	0.00085
2600 MHz TDD	0.00079
2600 MHz FDD	0.00047
3.4 GHz	0.00371
3.8 GHz	0.00712
Others	0.18440
Total	**0.27632**

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.