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:	29/07/2026	**Time Survey completed:**	10:03
Survey address:	Bolton BL2		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9950A Spectrum Analyser	US55240265	31/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025
Cabling	1.7m cable	2072	18/02/2026

[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:	09:08
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00820
174-230 MHz	0.00717
470-694 MHz	0.00553
700 MHz	0.01385
800 MHz	0.01254
900 MHz	0.02822
1400 MHz	0.00551
1800 MHz	0.02646
1900 MHz	0.00010
2100 MHz	0.00871
2300 MHz	0.00023
2600 MHz TDD	0.00049
2600 MHz FDD	0.01021
3.4 GHz	0.00602
3.8 GHz	0.00212
Others	0.09722
Total	**0.23258**

Location 2

Measurement time:	09:15
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00866
174-230 MHz	0.00893
470-694 MHz	0.00639
700 MHz	0.07969
800 MHz	0.04414
900 MHz	0.02438
1400 MHz	0.01170
1800 MHz	0.01594
1900 MHz	0.00010
2100 MHz	0.00274
2300 MHz	0.00026
2600 MHz TDD	0.00031
2600 MHz FDD	0.00105
3.4 GHz	0.00127
3.8 GHz	0.00233
Others	0.10487
Total	**0.31276**

Location 3

Measurement time:	09:25
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00917
174-230 MHz	0.00833
470-694 MHz	0.00645
700 MHz	0.01172
800 MHz	0.00669
900 MHz	0.00751
1400 MHz	0.00598
1800 MHz	0.02117
1900 MHz	0.00011
2100 MHz	0.01085
2300 MHz	0.00029
2600 MHz TDD	0.00046
2600 MHz FDD	0.00640
3.4 GHz	0.00123
3.8 GHz	0.00253
Others	0.11010
Total	**0.20900**

Location 4

Measurement time:	09:35
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00955
174-230 MHz	0.01199
470-694 MHz	0.00744
700 MHz	0.02306
800 MHz	0.00853
900 MHz	0.00557
1400 MHz	0.00642
1800 MHz	0.00456
1900 MHz	0.00012
2100 MHz	0.00523
2300 MHz	0.00030
2600 MHz TDD	0.00033
2600 MHz FDD	0.00142
3.4 GHz	0.00146
3.8 GHz	0.00272
Others	0.11679
Total	**0.20550**

Location 5

Measurement time:	09:46
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01001
174-230 MHz	0.00905
470-694 MHz	0.00698
700 MHz	0.00235
800 MHz	0.00072
900 MHz	0.00132
1400 MHz	0.00102
1800 MHz	0.00105
1900 MHz	0.00013
2100 MHz	0.00081
2300 MHz	0.00030
2600 MHz TDD	0.00032
2600 MHz FDD	0.00035
3.4 GHz	0.00149
3.8 GHz	0.00292
Others	0.12176
Total	**0.16057**

Location 6

Measurement time:	09:57
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01021
174-230 MHz	0.00939
470-694 MHz	0.00722
700 MHz	0.01244
800 MHz	0.02490
900 MHz	0.02670
1400 MHz	0.00344
1800 MHz	0.02759
1900 MHz	0.00013
2100 MHz	0.00841
2300 MHz	0.00031
2600 MHz TDD	0.00070
2600 MHz FDD	0.00825
3.4 GHz	0.00447
3.8 GHz	0.00307
Others	0.12642
Total	**0.27367**

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.