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:	17/09/2026	**Time Survey completed:**	13:23
Survey address:	Manchester SK9		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072603	11/02/2026
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:	12:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01606
174-230 MHz	0.01800
470-694 MHz	0.01401
700 MHz	0.00192
800 MHz	0.01614
900 MHz	0.00694
1400 MHz	0.00071
1800 MHz	0.00113
1900 MHz	0.00035
2100 MHz	0.00208
2300 MHz	0.00074
2600 MHz TDD	0.00071
2600 MHz FDD	0.00067
3.4 GHz	0.00343
3.8 GHz	0.00762
Others	0.23933
Total	**0.32984**

Location 2

Measurement time:	12:41
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01525
174-230 MHz	0.01718
470-694 MHz	0.01341
700 MHz	0.00182
800 MHz	0.00145
900 MHz	0.00260
1400 MHz	0.00067
1800 MHz	0.00412
1900 MHz	0.00033
2100 MHz	0.00179
2300 MHz	0.00071
2600 MHz TDD	0.00067
2600 MHz FDD	0.00047
3.4 GHz	0.00311
3.8 GHz	0.00711
Others	0.22742
Total	**0.29811**

Location 3

Measurement time:	12:50
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01495
174-230 MHz	0.01641
470-694 MHz	0.01302
700 MHz	0.00179
800 MHz	0.01312
900 MHz	0.01168
1400 MHz	0.00065
1800 MHz	0.00105
1900 MHz	0.00032
2100 MHz	0.00300
2300 MHz	0.00068
2600 MHz TDD	0.00066
2600 MHz FDD	0.00059
3.4 GHz	0.00300
3.8 GHz	0.00678
Others	0.21838
Total	**0.30608**

Location 4

Measurement time:	13:00
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01487
174-230 MHz	0.01582
470-694 MHz	0.01258
700 MHz	0.00170
800 MHz	0.00233
900 MHz	0.00243
1400 MHz	0.00062
1800 MHz	0.00091
1900 MHz	0.00031
2100 MHz	0.00096
2300 MHz	0.00066
2600 MHz TDD	0.00061
2600 MHz FDD	0.00026
3.4 GHz	0.00277
3.8 GHz	0.00646
Others	0.21038
Total	**0.27366**

Location 5

Measurement time:	13:08
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01431
174-230 MHz	0.01553
470-694 MHz	0.01229
700 MHz	0.00167
800 MHz	0.00394
900 MHz	0.00419
1400 MHz	0.00061
1800 MHz	0.00089
1900 MHz	0.00030
2100 MHz	0.00106
2300 MHz	0.00065
2600 MHz TDD	0.00059
2600 MHz FDD	0.00027
3.4 GHz	0.00269
3.8 GHz	0.00626
Others	0.20428
Total	**0.26955**

Location 6

Measurement time:	13:17
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01397
174-230 MHz	0.01507
470-694 MHz	0.01208
700 MHz	0.00164
800 MHz	0.02112
900 MHz	0.00849
1400 MHz	0.00059
1800 MHz	0.00098
1900 MHz	0.00030
2100 MHz	0.00250
2300 MHz	0.00063
2600 MHz TDD	0.00060
2600 MHz FDD	0.00074
3.4 GHz	0.00272
3.8 GHz	0.00616
Others	0.19931
Total	**0.28689**

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.