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:**	11:20
Survey address:	Manchester SK8		

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:	10:33
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.00940
174-230 MHz	0.01024
470-694 MHz	0.00851
700 MHz	0.00347
800 MHz	0.02644
900 MHz	0.03464
1400 MHz	0.00044
1800 MHz	0.00078
1900 MHz	0.00020
2100 MHz	0.00147
2300 MHz	0.00042
2600 MHz TDD	0.00039
2600 MHz FDD	0.00030
3.4 GHz	0.00320
3.8 GHz	0.00378
Others	0.13243
Total	**0.23612**

Location 2

Measurement time:	10:41
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01037
174-230 MHz	0.01088
470-694 MHz	0.00900
700 MHz	0.00902
800 MHz	0.05599
900 MHz	0.01163
1400 MHz	0.00057
1800 MHz	0.00227
1900 MHz	0.00021
2100 MHz	0.00393
2300 MHz	0.00045
2600 MHz TDD	0.00046
2600 MHz FDD	0.00135
3.4 GHz	0.00389
3.8 GHz	0.00412
Others	0.14085
Total	**0.26497**

Location 3

Measurement time:	10:48
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01162
174-230 MHz	0.01151
470-694 MHz	0.00938
700 MHz	0.01415
800 MHz	0.05029
900 MHz	0.01099
1400 MHz	0.00054
1800 MHz	0.00404
1900 MHz	0.00022
2100 MHz	0.00203
2300 MHz	0.00047
2600 MHz TDD	0.00046
2600 MHz FDD	0.00064
3.4 GHz	0.00434
3.8 GHz	0.00439
Others	0.14920
Total	**0.27426**

Location 4

Measurement time:	10:56
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01104
174-230 MHz	0.01184
470-694 MHz	0.00974
700 MHz	0.00712
800 MHz	0.02576
900 MHz	0.00544
1400 MHz	0.00047
1800 MHz	0.00235
1900 MHz	0.00023
2100 MHz	0.00209
2300 MHz	0.00049
2600 MHz TDD	0.00046
2600 MHz FDD	0.00044
3.4 GHz	0.00240
3.8 GHz	0.00454
Others	0.15353
Total	**0.23792**

Location 5

Measurement time:	11:07
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01168
174-230 MHz	0.01233
470-694 MHz	0.01003
700 MHz	0.00315
800 MHz	0.01808
900 MHz	0.03652
1400 MHz	0.00049
1800 MHz	0.00195
1900 MHz	0.00024
2100 MHz	0.00396
2300 MHz	0.00051
2600 MHz TDD	0.00051
2600 MHz FDD	0.00126
3.4 GHz	0.00258
3.8 GHz	0.00477
Others	0.16190
Total	**0.26995**

Location 6

Measurement time:	11:14
Frequency band	**Percentage of the ICNIRP reference levels for general public exposure**
87.5-108 MHz	0.01138
174-230 MHz	0.01255
470-694 MHz	0.01008
700 MHz	0.00585
800 MHz	0.07294
900 MHz	0.03553
1400 MHz	0.00049
1800 MHz	0.00096
1900 MHz	0.00024
2100 MHz	0.00244
2300 MHz	0.00051
2600 MHz TDD	0.00048
2600 MHz FDD	0.00042
3.4 GHz	0.00261
3.8 GHz	0.00481
Others	0.16209
Total	**0.32337**

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.