

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 floor² 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:	16/04/2026	Time Survey completed:	11:49
Survey address:	Flitwick MK45		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072605	25/03/2026
Probe	Agos Aria-6000 Antenna	AGOS-6000-1111	08/07/2025
Cabling	1.7m cable	1409	08/07/2025

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



Location 1

Measurement time:	11:04
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01161
174-230 MHz	0.01293
470-694 MHz	0.00967
700 MHz	0.01213
800 MHz	0.00519
900 MHz	0.00080
1400 MHz	0.00225
1800 MHz	0.00136
1900 MHz	0.00022
2100 MHz	0.00202
2300 MHz	0.00046
2600 MHz TDD	0.00039
2600 MHz FDD	0.00026
3.4 GHz	0.00543
3.8 GHz	0.00658
Others	0.17878
Total	0.25009

Location 2

Measurement time:	11:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01150
174-230 MHz	0.01314
470-694 MHz	0.01021
700 MHz	0.02820
800 MHz	0.01455
900 MHz	0.00073
1400 MHz	0.01465
1800 MHz	0.00518
1900 MHz	0.00023
2100 MHz	0.00276
2300 MHz	0.00046
2600 MHz TDD	0.00040
2600 MHz FDD	0.00028
3.4 GHz	0.00334
3.8 GHz	0.00673
Others	0.18146
Total	0.29378

Location 3

Measurement time:	11:19
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01187
174-230 MHz	0.01326
470-694 MHz	0.01018
700 MHz	0.03598
800 MHz	0.00984
900 MHz	0.00075
1400 MHz	0.01151
1800 MHz	0.00442
1900 MHz	0.00023
2100 MHz	0.00288
2300 MHz	0.00047
2600 MHz TDD	0.00041
2600 MHz FDD	0.00027
3.4 GHz	0.00385
3.8 GHz	0.00680
Others	0.18393
Total	0.29665

Location 4

Measurement time:	11:27
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01180
174-230 MHz	0.01345
470-694 MHz	0.00986
700 MHz	0.02763
800 MHz	0.02947
900 MHz	0.00261
1400 MHz	0.02395
1800 MHz	0.00383
1900 MHz	0.00022
2100 MHz	0.00503
2300 MHz	0.00047
2600 MHz TDD	0.00041
2600 MHz FDD	0.00029
3.4 GHz	0.00370
3.8 GHz	0.00681
Others	0.18344
Total	0.32296

Location 5

Measurement time:	11:34
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01184
174-230 MHz	0.01319
470-694 MHz	0.00996
700 MHz	0.06118
800 MHz	0.02942
900 MHz	0.00073
1400 MHz	0.00978
1800 MHz	0.00275
1900 MHz	0.00023
2100 MHz	0.00617
2300 MHz	0.00047
2600 MHz TDD	0.00040
2600 MHz FDD	0.00028
3.4 GHz	0.00444
3.8 GHz	0.00682
Others	0.18424
Total	0.34188

Location 6

Measurement time:	11:43
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01182
174-230 MHz	0.01331
470-694 MHz	0.00997
700 MHz	0.01508
800 MHz	0.01607
900 MHz	0.00083
1400 MHz	0.01064
1800 MHz	0.00171
1900 MHz	0.00023
2100 MHz	0.00344
2300 MHz	0.00047
2600 MHz TDD	0.00041
2600 MHz FDD	0.00028
3.4 GHz	0.00506
3.8 GHz	0.00689
Others	0.18581
Total	0.28201

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.