

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:	29/04/2025	Time Survey completed:	11:40
Survey address:	Slough SL2		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY58311497	23/05/2024
Probe	Agos Aria-6000 Antenna	ARIA-6000-1023	22/01/2021
Cabling	1.7m cable	1407	23/11/2023

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:	10:56
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00881
174-230 MHz	0.01010
470-694 MHz	0.00785
700 MHz	0.02768
800 MHz	0.00969
900 MHz	0.00083
1400 MHz	0.02772
1800 MHz	0.01274
1900 MHz	0.00019
2100 MHz	0.00718
2300 MHz	0.00046
2600 MHz TDD	0.00035
2600 MHz FDD	0.00223
3.4 GHz	0.00361
3.8 GHz	0.00485
Others	0.13560
Total	0.25988

Location 2

Measurement time:	11:03
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00890
174-230 MHz	0.01016
470-694 MHz	0.00791
700 MHz	0.00588
800 MHz	0.00322
900 MHz	0.00092
1400 MHz	0.00457
1800 MHz	0.00750
1900 MHz	0.00019
2100 MHz	0.00312
2300 MHz	0.00048
2600 MHz TDD	0.00035
2600 MHz FDD	0.00280
3.4 GHz	0.00379
3.8 GHz	0.00493
Others	0.13741
Total	0.20213

Location 3

Measurement time:	11:10
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00894
174-230 MHz	0.01013
470-694 MHz	0.00794
700 MHz	0.00368
800 MHz	0.00190
900 MHz	0.00059
1400 MHz	0.00765
1800 MHz	0.00966
1900 MHz	0.00019
2100 MHz	0.00291
2300 MHz	0.00044
2600 MHz TDD	0.00035
2600 MHz FDD	0.00609
3.4 GHz	0.00397
3.8 GHz	0.00492
Others	0.13789
Total	0.20724

Location 4

Measurement time:	11:18
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00891
174-230 MHz	0.01032
470-694 MHz	0.00788
700 MHz	0.00402
800 MHz	0.00272
900 MHz	0.00058
1400 MHz	0.01489
1800 MHz	0.05858
1900 MHz	0.00019
2100 MHz	0.03996
2300 MHz	0.00043
2600 MHz TDD	0.00036
2600 MHz FDD	0.00436
3.4 GHz	0.00429
3.8 GHz	0.00491
Others	0.13760
Total	0.29999

Location 5

Measurement time:	11:26
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00890
174-230 MHz	0.01027
470-694 MHz	0.00789
700 MHz	0.02900
800 MHz	0.00658
900 MHz	0.00069
1400 MHz	0.01688
1800 MHz	0.00685
1900 MHz	0.00019
2100 MHz	0.00614
2300 MHz	0.00046
2600 MHz TDD	0.00035
2600 MHz FDD	0.00148
3.4 GHz	0.00359
3.8 GHz	0.00494
Others	0.13795
Total	0.24217

Location 6

Measurement time:	11:34
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00885
174-230 MHz	0.01011
470-694 MHz	0.00791
700 MHz	0.01823
800 MHz	0.00770
900 MHz	0.00080
1400 MHz	0.01603
1800 MHz	0.01489
1900 MHz	0.00019
2100 MHz	0.00666
2300 MHz	0.00049
2600 MHz TDD	0.00035
2600 MHz FDD	0.00220
3.4 GHz	0.00338
3.8 GHz	0.00492
Others	0.13643
Total	0.23913

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.