

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:	18/02/2026	Time Survey completed:	12:11
Survey address:	Rushden NN10		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	11/12/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1023	08/07/2025
Cabling	1.7m cable	1188	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 five locations and are presented in the following pages of this report.



Location 1

Measurement time:	10:54
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01427
174-230 MHz	0.01608
470-694 MHz	0.01261
700 MHz	0.00204
800 MHz	0.01403
900 MHz	0.00978
1400 MHz	0.00066
1800 MHz	0.00436
1900 MHz	0.00032
2100 MHz	0.00228
2300 MHz	0.00105
2600 MHz TDD	0.00055
2600 MHz FDD	0.00078
3.4 GHz	0.00259
3.8 GHz	0.00602
Others	0.21317
Total	0.30059

Location 2

Measurement time:	11:10
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01399
174-230 MHz	0.01580
470-694 MHz	0.01246
700 MHz	0.00181
800 MHz	0.00586
900 MHz	0.01947
1400 MHz	0.00065
1800 MHz	0.00185
1900 MHz	0.00031
2100 MHz	0.00205
2300 MHz	0.00432
2600 MHz TDD	0.00054
2600 MHz FDD	0.00068
3.4 GHz	0.00252
3.8 GHz	0.00591
Others	0.20022
Total	0.28843

Location 3

Measurement time:	11:25
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01383
174-230 MHz	0.01551
470-694 MHz	0.01230
700 MHz	0.00175
800 MHz	0.00501
900 MHz	0.00725
1400 MHz	0.00064
1800 MHz	0.00810
1900 MHz	0.00031
2100 MHz	0.00208
2300 MHz	0.00257
2600 MHz TDD	0.00053
2600 MHz FDD	0.00042
3.4 GHz	0.00248
3.8 GHz	0.00579
Others	0.19642
Total	0.27499

Location 4

Measurement time:	11:48
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01385
174-230 MHz	0.01563
470-694 MHz	0.01237
700 MHz	0.00169
800 MHz	0.00188
900 MHz	0.00293
1400 MHz	0.00065
1800 MHz	0.00098
1900 MHz	0.00031
2100 MHz	0.00092
2300 MHz	0.00071
2600 MHz TDD	0.00053
2600 MHz FDD	0.00024
3.4 GHz	0.00250
3.8 GHz	0.00582
Others	0.19766
Total	0.25868

Location 5

Measurement time:	12:05
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01390
174-230 MHz	0.01550
470-694 MHz	0.01228
700 MHz	0.00176
800 MHz	0.00698
900 MHz	0.01098
1400 MHz	0.00064
1800 MHz	0.00666
1900 MHz	0.00031
2100 MHz	0.00181
2300 MHz	0.00095
2600 MHz TDD	0.00053
2600 MHz FDD	0.00082
3.4 GHz	0.00248
3.8 GHz	0.00581
Others	0.19852
Total	0.27994

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.