

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:	27/04/2026	Time Survey completed:	12:43
Survey address:	Hitchin SG4		

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:	11:59
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01077
174-230 MHz	0.01190
470-694 MHz	0.00924
700 MHz	0.01257
800 MHz	0.01205
900 MHz	0.00953
1400 MHz	0.00453
1800 MHz	0.00403
1900 MHz	0.00021
2100 MHz	0.00642
2300 MHz	0.00043
2600 MHz TDD	0.00039
2600 MHz FDD	0.00131
3.4 GHz	0.00332
3.8 GHz	0.00596
Others	0.16455
Total	0.25721

Location 2

Measurement time:	12:06
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01128
174-230 MHz	0.01266
470-694 MHz	0.00971
700 MHz	0.01734
800 MHz	0.01717
900 MHz	0.00848
1400 MHz	0.00801
1800 MHz	0.00404
1900 MHz	0.00022
2100 MHz	0.00281
2300 MHz	0.00045
2600 MHz TDD	0.00041
2600 MHz FDD	0.00151
3.4 GHz	0.00363
3.8 GHz	0.00640
Others	0.17502
Total	0.27914

Location 3

Measurement time:	12:14
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01195
174-230 MHz	0.01343
470-694 MHz	0.01000
700 MHz	0.02239
800 MHz	0.03823
900 MHz	0.01180
1400 MHz	0.00483
1800 MHz	0.00353
1900 MHz	0.00023
2100 MHz	0.00256
2300 MHz	0.00048
2600 MHz TDD	0.00047
2600 MHz FDD	0.00233
3.4 GHz	0.00411
3.8 GHz	0.00688
Others	0.18557
Total	0.31877

Location 4

Measurement time:	12:22
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01261
174-230 MHz	0.01423
470-694 MHz	0.01048
700 MHz	0.04751
800 MHz	0.02903
900 MHz	0.01238
1400 MHz	0.01074
1800 MHz	0.00775
1900 MHz	0.00024
2100 MHz	0.00534
2300 MHz	0.00051
2600 MHz TDD	0.00049
2600 MHz FDD	0.00172
3.4 GHz	0.00454
3.8 GHz	0.00735
Others	0.19766
Total	0.36257

Location 5

Measurement time:	12:29
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01305
174-230 MHz	0.01473
470-694 MHz	0.01077
700 MHz	0.03420
800 MHz	0.03656
900 MHz	0.01012
1400 MHz	0.01637
1800 MHz	0.00462
1900 MHz	0.00025
2100 MHz	0.00445
2300 MHz	0.00053
2600 MHz TDD	0.00048
2600 MHz FDD	0.00126
3.4 GHz	0.00473
3.8 GHz	0.00770
Others	0.20566
Total	0.36550

Location 6

Measurement time:	12:37
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01360
174-230 MHz	0.01498
470-694 MHz	0.01131
700 MHz	0.01679
800 MHz	0.01559
900 MHz	0.00772
1400 MHz	0.00550
1800 MHz	0.00309
1900 MHz	0.00026
2100 MHz	0.00454
2300 MHz	0.00056
2600 MHz TDD	0.00050
2600 MHz FDD	0.00161
3.4 GHz	0.00456
3.8 GHz	0.00802
Others	0.21253
Total	0.32115

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.