

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:	18/06/2026	Time Survey completed:	10:47
Survey address:	Hedge End SO30		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072613	07/07/2025
Probe	Agos Aria-6000 Antenna	1157	08/07/2025
Cabling	1.7m cable	2064	15/11/2024

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:	09:55
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00891
174-230 MHz	0.01010
470-694 MHz	0.00768
700 MHz	0.00102
800 MHz	0.00080
900 MHz	0.00057
1400 MHz	0.00036
1800 MHz	0.00059
1900 MHz	0.00017
2100 MHz	0.00049
2300 MHz	0.00037
2600 MHz TDD	0.00033
2600 MHz FDD	0.00020
3.4 GHz	0.00208
3.8 GHz	0.00506
Others	0.13954
Total	0.17826

Location 2

Measurement time:	10:03
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00977
174-230 MHz	0.01100
470-694 MHz	0.00826
700 MHz	0.00111
800 MHz	0.00060
900 MHz	0.00059
1400 MHz	0.00040
1800 MHz	0.00063
1900 MHz	0.00019
2100 MHz	0.00052
2300 MHz	0.00040
2600 MHz TDD	0.00036
2600 MHz FDD	0.00022
3.4 GHz	0.00232
3.8 GHz	0.00561
Others	0.15272
Total	0.19468

Location 3

Measurement time:	10:11
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01061
174-230 MHz	0.01188
470-694 MHz	0.00890
700 MHz	0.00123
800 MHz	0.00122
900 MHz	0.00126
1400 MHz	0.00045
1800 MHz	0.00089
1900 MHz	0.00021
2100 MHz	0.00088
2300 MHz	0.00044
2600 MHz TDD	0.00040
2600 MHz FDD	0.00028
3.4 GHz	0.00257
3.8 GHz	0.00622
Others	0.16754
Total	0.21497

Location 4

Measurement time:	10:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01137
174-230 MHz	0.01280
470-694 MHz	0.00954
700 MHz	0.00126
800 MHz	0.00074
900 MHz	0.00072
1400 MHz	0.00047
1800 MHz	0.00068
1900 MHz	0.00022
2100 MHz	0.00062
2300 MHz	0.00047
2600 MHz TDD	0.00042
2600 MHz FDD	0.00025
3.4 GHz	0.00281
3.8 GHz	0.00678
Others	0.18095
Total	0.23012

Location 5

Measurement time:	10:31
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01183
174-230 MHz	0.01341
470-694 MHz	0.00990
700 MHz	0.00150
800 MHz	0.00079
900 MHz	0.00073
1400 MHz	0.00053
1800 MHz	0.00072
1900 MHz	0.00023
2100 MHz	0.00065
2300 MHz	0.00050
2600 MHz TDD	0.00044
2600 MHz FDD	0.00030
3.4 GHz	0.00300
3.8 GHz	0.00716
Others	0.18997
Total	0.24166

Location 6

Measurement time:	10:41
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01248
174-230 MHz	0.01400
470-694 MHz	0.01029
700 MHz	0.00136
800 MHz	0.00097
900 MHz	0.00079
1400 MHz	0.00051
1800 MHz	0.00080
1900 MHz	0.00024
2100 MHz	0.00068
2300 MHz	0.00052
2600 MHz TDD	0.00047
2600 MHz FDD	0.00029
3.4 GHz	0.00313
3.8 GHz	0.00756
Others	0.19969
Total	0.25377

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.