

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:	02/03/2026	Time Survey completed:	13:32
Survey address:	Ramsey, PE26		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072591	11/12/2025
Probe	Agos Aria-6000 Antenna	ARIA-6000-1023	08/07/2025
Cabling	1.7m cable	1177	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:	12:32
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01422
174-230 MHz	0.01579
470-694 MHz	0.01253
700 MHz	0.00213
800 MHz	0.04312
900 MHz	0.04208
1400 MHz	0.00065
1800 MHz	0.00319
1900 MHz	0.00032
2100 MHz	0.00103
2300 MHz	0.00064
2600 MHz TDD	0.00055
2600 MHz FDD	0.00023
3.4 GHz	0.00256
3.8 GHz	0.00599
Others	0.20302
Total	0.34805

Location 2

Measurement time:	12:44
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01532
174-230 MHz	0.01711
470-694 MHz	0.01331
700 MHz	0.00224
800 MHz	0.05297
900 MHz	0.00279
1400 MHz	0.00071
1800 MHz	0.02139
1900 MHz	0.00034
2100 MHz	0.00141
2300 MHz	0.00069
2600 MHz TDD	0.00059
2600 MHz FDD	0.00025
3.4 GHz	0.00281
3.8 GHz	0.00656
Others	0.21708
Total	0.35556

Location 3

Measurement time:	12:56
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01548
174-230 MHz	0.01751
470-694 MHz	0.01370
700 MHz	0.00229
800 MHz	0.00944
900 MHz	0.01703
1400 MHz	0.00072
1800 MHz	0.00659
1900 MHz	0.00035
2100 MHz	0.00110
2300 MHz	0.00070
2600 MHz TDD	0.00061
2600 MHz FDD	0.00026
3.4 GHz	0.00289
3.8 GHz	0.00675
Others	0.22284
Total	0.31826

Location 4

Measurement time:	13:07
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01548
174-230 MHz	0.01739
470-694 MHz	0.01366
700 MHz	0.00221
800 MHz	0.00873
900 MHz	0.01451
1400 MHz	0.00072
1800 MHz	0.01521
1900 MHz	0.00035
2100 MHz	0.00135
2300 MHz	0.00070
2600 MHz TDD	0.00060
2600 MHz FDD	0.00026
3.4 GHz	0.00288
3.8 GHz	0.00674
Others	0.22206
Total	0.32285

Location 5

Measurement time:	13:26
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01595
174-230 MHz	0.01770
470-694 MHz	0.01392
700 MHz	0.00266
800 MHz	0.03893
900 MHz	0.03013
1400 MHz	0.00074
1800 MHz	0.00420
1900 MHz	0.00035
2100 MHz	0.00117
2300 MHz	0.00072
2600 MHz TDD	0.00062
2600 MHz FDD	0.00027
3.4 GHz	0.00298
3.8 GHz	0.00695
Others	0.22952
Total	0.36681

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.