

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:	19/01/2026	Time Survey completed:	12:30
Survey address:	Bourne PE10		

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	1407	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:	10:53
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01049
174-230 MHz	0.01183
470-694 MHz	0.00958
700 MHz	0.00196
800 MHz	0.00452
900 MHz	0.00476
1400 MHz	0.00341
1800 MHz	0.00120
1900 MHz	0.00023
2100 MHz	0.00098
2300 MHz	0.00050
2600 MHz TDD	0.00040
2600 MHz FDD	0.00026
3.4 GHz	0.00223
3.8 GHz	0.00420
Others	0.15123
Total	0.20776

Location 2

Measurement time:	11:06
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01139
174-230 MHz	0.01275
470-694 MHz	0.01035
700 MHz	0.00274
800 MHz	0.02221
900 MHz	0.01931
1400 MHz	0.00176
1800 MHz	0.00115
1900 MHz	0.00025
2100 MHz	0.00092
2300 MHz	0.00058
2600 MHz TDD	0.00043
2600 MHz FDD	0.00020
3.4 GHz	0.00260
3.8 GHz	0.00477
Others	0.16532
Total	0.25673

Location 3

Measurement time:	11:31
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01287
174-230 MHz	0.01453
470-694 MHz	0.01151
700 MHz	0.00603
800 MHz	0.01843
900 MHz	0.01355
1400 MHz	0.00788
1800 MHz	0.00430
1900 MHz	0.00029
2100 MHz	0.01065
2300 MHz	0.00176
2600 MHz TDD	0.00050
2600 MHz FDD	0.00059
3.4 GHz	0.00295
3.8 GHz	0.00557
Others	0.18466
Total	0.29608

Location 4

Measurement time:	11:53
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01375
174-230 MHz	0.01538
470-694 MHz	0.01212
700 MHz	0.00582
800 MHz	0.00865
900 MHz	0.00661
1400 MHz	0.00378
1800 MHz	0.00355
1900 MHz	0.00030
2100 MHz	0.00619
2300 MHz	0.00140
2600 MHz TDD	0.00053
2600 MHz FDD	0.00034
3.4 GHz	0.00288
3.8 GHz	0.00595
Others	0.19640
Total	0.28367

Location 5

Measurement time:	12:13
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01405
174-230 MHz	0.01584
470-694 MHz	0.01255
700 MHz	0.00509
800 MHz	0.02338
900 MHz	0.00856
1400 MHz	0.00372
1800 MHz	0.00234
1900 MHz	0.00032
2100 MHz	0.00262
2300 MHz	0.00093
2600 MHz TDD	0.00055
2600 MHz FDD	0.00078
3.4 GHz	0.00334
3.8 GHz	0.00651
Others	0.22125
Total	0.32184

Location 6

Measurement time:	12:24
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01411
174-230 MHz	0.01582
470-694 MHz	0.01256
700 MHz	0.00252
800 MHz	0.00492
900 MHz	0.00457
1400 MHz	0.00201
1800 MHz	0.00143
1900 MHz	0.00032
2100 MHz	0.00122
2300 MHz	0.00068
2600 MHz TDD	0.00055
2600 MHz FDD	0.00034
3.4 GHz	0.00296
3.8 GHz	0.00625
Others	0.20467
Total	0.27494

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.