

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:	25/09/2025	Time Survey completed:	14:42
Survey address:	Fleetwood FY7		

Measurement equipment			Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072593	06/08/2025	
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025	
Cabling	1.7m cable	1462	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:	13:56
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01672
174-230 MHz	0.01876
470-694 MHz	0.01389
700 MHz	0.01624
800 MHz	0.00456
900 MHz	0.00116
1400 MHz	0.00449
1800 MHz	0.00167
1900 MHz	0.00036
2100 MHz	0.00132
2300 MHz	0.00077
2600 MHz TDD	0.00075
2600 MHz FDD	0.00039
3.4 GHz	0.00528
3.8 GHz	0.00898
Others	0.25370
Total	0.34905

Location 2

Measurement time:	14:05
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01631
174-230 MHz	0.01843
470-694 MHz	0.01369
700 MHz	0.01333
800 MHz	0.00428
900 MHz	0.00103
1400 MHz	0.00163
1800 MHz	0.00145
1900 MHz	0.00035
2100 MHz	0.00109
2300 MHz	0.00076
2600 MHz TDD	0.00073
2600 MHz FDD	0.00034
3.4 GHz	0.00425
3.8 GHz	0.00879
Others	0.24857
Total	0.33504

Location 3

Measurement time:	14:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01587
174-230 MHz	0.01803
470-694 MHz	0.01343
700 MHz	0.00404
800 MHz	0.00179
900 MHz	0.00106
1400 MHz	0.00340
1800 MHz	0.00302
1900 MHz	0.00035
2100 MHz	0.00124
2300 MHz	0.00074
2600 MHz TDD	0.00072
2600 MHz FDD	0.00034
3.4 GHz	0.00423
3.8 GHz	0.00856
Others	0.24342
Total	0.32022

Location 4

Measurement time:	14:20
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01534
174-230 MHz	0.01752
470-694 MHz	0.01308
700 MHz	0.00436
800 MHz	0.00208
900 MHz	0.00111
1400 MHz	0.00297
1800 MHz	0.00124
1900 MHz	0.00034
2100 MHz	0.00188
2300 MHz	0.00072
2600 MHz TDD	0.00069
2600 MHz FDD	0.00033
3.4 GHz	0.00504
3.8 GHz	0.00830
Others	0.23616
Total	0.31117

Location 5

Measurement time:	14:29
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01477
174-230 MHz	0.01688
470-694 MHz	0.01259
700 MHz	0.00794
800 MHz	0.00380
900 MHz	0.00096
1400 MHz	0.00425
1800 MHz	0.00901
1900 MHz	0.00032
2100 MHz	0.00173
2300 MHz	0.00070
2600 MHz TDD	0.00067
2600 MHz FDD	0.00031
3.4 GHz	0.00734
3.8 GHz	0.00793
Others	0.22521
Total	0.31442

Location 6

Measurement time:	14:36
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01480
174-230 MHz	0.01681
470-694 MHz	0.01263
700 MHz	0.01393
800 MHz	0.00446
900 MHz	0.00112
1400 MHz	0.00614
1800 MHz	0.00175
1900 MHz	0.00033
2100 MHz	0.00115
2300 MHz	0.00070
2600 MHz TDD	0.00066
2600 MHz FDD	0.00035
3.4 GHz	0.00482
3.8 GHz	0.00790
Others	0.22601
Total	0.31353

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.