

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:	05/01/2026	Time Survey completed:	15:09
Survey address:	Lytham St Annes FY8		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	US55240265	31/10/2025
Probe	Agos Aria-6000 Antenna	AGOS-6000-1022	08/07/2025
Cabling	1.7m cable	1405	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:	14:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00570
174-230 MHz	0.00515
470-694 MHz	0.00409
700 MHz	0.00279
800 MHz	0.02653
900 MHz	0.10773
1400 MHz	0.00016
1800 MHz	0.00020
1900 MHz	0.00007
2100 MHz	0.00641
2300 MHz	0.00015
2600 MHz TDD	0.00017
2600 MHz FDD	0.00038
3.4 GHz	0.00070
3.8 GHz	0.00134
Others	0.06523
Total	0.22679

Location 2

Measurement time:	14:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00620
174-230 MHz	0.00553
470-694 MHz	0.00441
700 MHz	0.00139
800 MHz	0.00923
900 MHz	0.01256
1400 MHz	0.00018
1800 MHz	0.00026
1900 MHz	0.00007
2100 MHz	0.00578
2300 MHz	0.00017
2600 MHz TDD	0.00025
2600 MHz FDD	0.00224
3.4 GHz	0.00083
3.8 GHz	0.00149
Others	0.06926
Total	0.11984

Location 3

Measurement time:	14:29
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00644
174-230 MHz	0.00578
470-694 MHz	0.00463
700 MHz	0.00236
800 MHz	0.03063
900 MHz	0.03625
1400 MHz	0.00019
1800 MHz	0.00024
1900 MHz	0.00008
2100 MHz	0.01526
2300 MHz	0.00018
2600 MHz TDD	0.00020
2600 MHz FDD	0.00060
3.4 GHz	0.00083
3.8 GHz	0.00161
Others	0.07388
Total	0.17915

Location 4

Measurement time:	14:42
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00680
174-230 MHz	0.00630
470-694 MHz	0.00497
700 MHz	0.00151
800 MHz	0.00404
900 MHz	0.00417
1400 MHz	0.00020
1800 MHz	0.00025
1900 MHz	0.00008
2100 MHz	0.00207
2300 MHz	0.00019
2600 MHz TDD	0.00021
2600 MHz FDD	0.00050
3.4 GHz	0.00078
3.8 GHz	0.00178
Others	0.07906
Total	0.11292

Location 5

Measurement time:	14:51
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00707
174-230 MHz	0.00646
470-694 MHz	0.00524
700 MHz	0.00111
800 MHz	0.00868
900 MHz	0.01847
1400 MHz	0.00021
1800 MHz	0.00029
1900 MHz	0.00009
2100 MHz	0.00640
2300 MHz	0.00020
2600 MHz TDD	0.00024
2600 MHz FDD	0.00081
3.4 GHz	0.00084
3.8 GHz	0.00184
Others	0.08158
Total	0.13954

Location 6

Measurement time:	15:03
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00715
174-230 MHz	0.00661
470-694 MHz	0.00513
700 MHz	0.00363
800 MHz	0.01301
900 MHz	0.06864
1400 MHz	0.00021
1800 MHz	0.00027
1900 MHz	0.00009
2100 MHz	0.00507
2300 MHz	0.00020
2600 MHz TDD	0.00024
2600 MHz FDD	0.00097
3.4 GHz	0.00102
3.8 GHz	0.00188
Others	0.08472
Total	0.19885

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.