

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:	30/01/2026	Time Survey completed:	16:20
Survey address:	Leyland PR4		

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 five locations and are presented in the following pages of this report.



Location 1

Measurement time:	15:37
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01073
174-230 MHz	0.01010
470-694 MHz	0.00788
700 MHz	0.00291
800 MHz	0.00127
900 MHz	0.00057
1400 MHz	0.00034
1800 MHz	0.00362
1900 MHz	0.00014
2100 MHz	0.00384
2300 MHz	0.00034
2600 MHz TDD	0.00035
2600 MHz FDD	0.00018
3.4 GHz	0.00179
3.8 GHz	0.00346
Others	0.13377
Total	0.18129

Location 2

Measurement time:	15:46
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01049
174-230 MHz	0.00974
470-694 MHz	0.00762
700 MHz	0.00491
800 MHz	0.00111
900 MHz	0.00055
1400 MHz	0.00033
1800 MHz	0.00184
1900 MHz	0.00014
2100 MHz	0.00179
2300 MHz	0.00033
2600 MHz TDD	0.00034
2600 MHz FDD	0.00017
3.4 GHz	0.00202
3.8 GHz	0.00330
Others	0.12850
Total	0.17319

Location 3

Measurement time:	15:54
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01020
174-230 MHz	0.00939
470-694 MHz	0.00732
700 MHz	0.02943
800 MHz	0.00653
900 MHz	0.00052
1400 MHz	0.00032
1800 MHz	0.00329
1900 MHz	0.00013
2100 MHz	0.00538
2300 MHz	0.00032
2600 MHz TDD	0.00032
2600 MHz FDD	0.00016
3.4 GHz	0.00150
3.8 GHz	0.00318
Others	0.12456
Total	0.20255

Location 4

Measurement time:	16:05
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00993
174-230 MHz	0.00916
470-694 MHz	0.00711
700 MHz	0.02303
800 MHz	0.00178
900 MHz	0.00052
1400 MHz	0.00030
1800 MHz	0.00109
1900 MHz	0.00013
2100 MHz	0.00061
2300 MHz	0.00031
2600 MHz TDD	0.00031
2600 MHz FDD	0.00016
3.4 GHz	0.00139
3.8 GHz	0.00302
Others	0.11918
Total	0.17803

Location 5

Measurement time:	16:14
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00956
174-230 MHz	0.00877
470-694 MHz	0.00690
700 MHz	0.00246
800 MHz	0.00113
900 MHz	0.00050
1400 MHz	0.00030
1800 MHz	0.00319
1900 MHz	0.00012
2100 MHz	0.00907
2300 MHz	0.00029
2600 MHz TDD	0.00030
2600 MHz FDD	0.00015
3.4 GHz	0.00137
3.8 GHz	0.00289
Others	0.11553
Total	0.16253

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.