

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:	10/03/2025	Time Survey completed:	14:13
Survey address:	Malton YO17		

Measurement equipment		Serial number	Calibration Date
Meter	Keysight Fieldfox N9915A Spectrum Analyser	MY56072594	04/11/2024
Probe	Agos Aria-6000 Antenna	6000-1024	30/03/2021
Cabling	1.7m cable	1383	12/11/2023

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:	13:21
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00794
174-230 MHz	0.00924
470-694 MHz	0.00747
700 MHz	0.01052
800 MHz	0.00394
900 MHz	0.00054
1400 MHz	0.00063
1800 MHz	0.00171
1900 MHz	0.00016
2100 MHz	0.00081
2300 MHz	0.00038
2600 MHz TDD	0.00031
2600 MHz FDD	0.00016
3.4 GHz	0.00175
3.8 GHz	0.00411
Others	0.12148
Total	0.17113

Location 2

Measurement time:	13:29
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00798
174-230 MHz	0.00951
470-694 MHz	0.00764
700 MHz	0.00887
800 MHz	0.00236
900 MHz	0.00053
1400 MHz	0.00057
1800 MHz	0.00243
1900 MHz	0.00017
2100 MHz	0.00100
2300 MHz	0.00039
2600 MHz TDD	0.00033
2600 MHz FDD	0.00017
3.4 GHz	0.00183
3.8 GHz	0.00430
Others	0.12604
Total	0.17412

Location 3

Measurement time:	13:37
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00835
174-230 MHz	0.00987
470-694 MHz	0.00782
700 MHz	0.00905
800 MHz	0.00440
900 MHz	0.00057
1400 MHz	0.00056
1800 MHz	0.00281
1900 MHz	0.00018
2100 MHz	0.00094
2300 MHz	0.00041
2600 MHz TDD	0.00034
2600 MHz FDD	0.00017
3.4 GHz	0.00190
3.8 GHz	0.00448
Others	0.13095
Total	0.18281

Location 4

Measurement time:	13:45
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00852
174-230 MHz	0.00996
470-694 MHz	0.00795
700 MHz	0.00270
800 MHz	0.00161
900 MHz	0.00059
1400 MHz	0.00053
1800 MHz	0.00081
1900 MHz	0.00018
2100 MHz	0.00060
2300 MHz	0.00041
2600 MHz TDD	0.00034
2600 MHz FDD	0.00017
3.4 GHz	0.00193
3.8 GHz	0.00454
Others	0.13227
Total	0.17311

Location 5

Measurement time:	13:55
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00870
174-230 MHz	0.01014
470-694 MHz	0.00818
700 MHz	0.00228
800 MHz	0.00183
900 MHz	0.00058
1400 MHz	0.00081
1800 MHz	0.00194
1900 MHz	0.00018
2100 MHz	0.00070
2300 MHz	0.00041
2600 MHz TDD	0.00035
2600 MHz FDD	0.00018
3.4 GHz	0.00195
3.8 GHz	0.00460
Others	0.13413
Total	0.17696

Location 6

Measurement time:	14:07
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.00861
174-230 MHz	0.01009
470-694 MHz	0.00802
700 MHz	0.01032
800 MHz	0.00403
900 MHz	0.00056
1400 MHz	0.00066
1800 MHz	0.00165
1900 MHz	0.00018
2100 MHz	0.00093
2300 MHz	0.00041
2600 MHz TDD	0.00035
2600 MHz FDD	0.00018
3.4 GHz	0.00195
3.8 GHz	0.00459
Others	0.13417
Total	0.18671

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.