

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:	15/04/2026	Time Survey completed:	14:18
Survey address:	Dereham NR20		

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	1188	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:	13:02
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01716
174-230 MHz	0.01920
470-694 MHz	0.01495
700 MHz	0.00880
800 MHz	0.04503
900 MHz	0.00458
1400 MHz	0.00078
1800 MHz	0.00318
1900 MHz	0.00037
2100 MHz	0.02883
2300 MHz	0.00701
2600 MHz TDD	0.00066
2600 MHz FDD	0.00028
3.4 GHz	0.00317
3.8 GHz	0.00737
Others	0.24330
Total	0.40467

Location 2

Measurement time:	13:14
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01678
174-230 MHz	0.01878
470-694 MHz	0.01476
700 MHz	0.03294
800 MHz	0.07912
900 MHz	0.08001
1400 MHz	0.00081
1800 MHz	0.00283
1900 MHz	0.00037
2100 MHz	0.00686
2300 MHz	0.00367
2600 MHz TDD	0.00065
2600 MHz FDD	0.00028
3.4 GHz	0.00311
3.8 GHz	0.00725
Others	0.24049
Total	0.50868

Location 3

Measurement time:	13:25
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01665
174-230 MHz	0.01856
470-694 MHz	0.01449
700 MHz	0.01138
800 MHz	0.03374
900 MHz	0.01361
1400 MHz	0.00077
1800 MHz	0.00196
1900 MHz	0.00036
2100 MHz	0.01648
2300 MHz	0.00412
2600 MHz TDD	0.00063
2600 MHz FDD	0.00027
3.4 GHz	0.00306
3.8 GHz	0.00711
Others	0.23639
Total	0.37958

Location 4

Measurement time:	14:01
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01813
174-230 MHz	0.02011
470-694 MHz	0.01564
700 MHz	0.01909
800 MHz	0.01028
900 MHz	0.01748
1400 MHz	0.00083
1800 MHz	0.00389
1900 MHz	0.00040
2100 MHz	0.00892
2300 MHz	0.00356
2600 MHz TDD	0.00070
2600 MHz FDD	0.00030
3.4 GHz	0.00339
3.8 GHz	0.00789
Others	0.25953
Total	0.39015

Location 5

Measurement time:	14:12
Frequency band	Percentage of the ICNIRP reference levels for general public exposure
87.5-108 MHz	0.01762
174-230 MHz	0.01961
470-694 MHz	0.01512
700 MHz	0.00701
800 MHz	0.05586
900 MHz	0.00413
1400 MHz	0.00080
1800 MHz	0.00270
1900 MHz	0.00038
2100 MHz	0.01797
2300 MHz	0.00694
2600 MHz TDD	0.00068
2600 MHz FDD	0.00029
3.4 GHz	0.00325
3.8 GHz	0.00756
Others	0.24909
Total	0.40901

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.