Investigation of Electromagnetic Fields

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1 Introduction

The current document describes an investigation of the power density of the electromagnetic fields (EMFs) at different locations and in the frequency band 450 MHz to 6000 MHz. A main purpose has been to provide data about the power density that members of the general public could be exposed to in practice, and therefore the investigation is based on measurements.

The measurements were carried out at different locations in and around the city of Aalborg in Denmark, where different kinds of activity are expected in terms of what kind of wireless activity and the amount of it. Typical examples are the wireless transmissions associated with 4G and 5G mobile phones, and wireless data transmission via Wi-Fi, but numerous different kinds of wireless communication exists across the considered frequency band.

Wireless communication essentially requires exchange of energy between the transmitter and receiver. At the transmitter data information, such as voice data, is converted into an EMF and radiated from one or more antennas. The EMF is captured by other antennas at the receiving end, where the information is extracted and used, for example to make the voice signal.

As radio frequency EMFs at sufficiently high power levels can adversely affect the health of persons, it is important to make sure that all power levels are below safe limits when the EMF is emitted in places where people are. The strength of an EMF may be characterized by the so-called power density, a quantity measured in Watts per square meter (W/m^2). The International Commission on Non-Ionizing Radiation Protection (ICNIRP) has established safe maximum values of the power density to protect people from all substantiated harmful effects of radio frequency EMF exposure. The guidelines are described in the reference [1] which is used as basis for the current work, as explained further in Sec. 5.

The legal reference used in Denmark is “1999/519/EC: Council Recommendation of 12 July 1999 on the limitation of exposure of the general public to electromagnetic fields (0 Hz to 300 GHz)” [2]. Note that this recommendation predates the current ICNIRP guidelines from 2020, which are therefore used in this work.

The report describes the measurement setup in Sec. 3, followed by descriptions of all the measurement locations in Sec. 4, how the data processing was done in Sec. 5, and discussions of the results in Sec. 6. The conclusions on the investigation is presented in Sec. 2.

The work described in this report was funded by the *Agency for Data Supply and Infrastructure,* part of the *Danish Ministry of Climate, Energy and Utilities* [3].

A similar study was done in 2004, also based on measurements made in Aalborg, see reference [4].

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2 Conclusions

The investigation is based on measurements of the EMF at 22 different locations around the city of Aalborg, covering different scenarios where people are exposed to EMFs. Those include regular workplaces, flats, shopping areas, a football stadium, among others.

The studied frequency band is between 450 MHz and 6000 MHz, which is used by many different types of communications systems, for example cellular mobile communications 4G and 5G, Wi-Fi, Bluetooth, digital TV broadcasting, and many more. The measurements are analyzed both in terms of the absolute power density as well as in % of the safe limits (reference levels) specified in the 2020 guidelines by ICNIRP. Further, the total frequency band is divided into 67 different sub-bands each covering a known wireless communications system so that main contributors to the power density can be identified.

For all locations, the measured EMF power densities are only a small fraction of the safe limits defined by ICNIRP. In the worst case, the measured value is more than 600 times smaller than the limit (0.164%). The highest value was found for a single location “Salling Rooftop,” which is an outdoor bar and skywalk area where a cellular network base station is mounted close by. For all other locations the measured densities were even smaller, with the 2^{nd} largest being more than 3700 times smaller than the limit (0.027%).

The above-mentioned safe limits given by ICNIRP are specified for a measurement duration of 30 minutes. With the purpose of also studying how EMF varies depending on the time of day, measurements were performed for a duration of about 7 days at one of the locations. In this case the power density was found to vary in the range of about 0.000019 - 0.00062 % of the limit.

Based on the study it is very safe to conclude that even many new wireless services are introduced and used, the exposure for the sum of all the electromagnetic fields is very low compared to the safety limits. At all locations the measured exposure was at least 500 times below the safety limit.

3 Measurement Setup

All the measurements are performed with a setup consisting of the following three pieces of equipment:

- Anritsu Field Master Pro MS2090A [5]. This spectrum analyzer performs the sweeps which forms the basis for the evaluation.
- Aaronia ISOLOG 3D MOBILE 9080 PRO probe [6]. The probe defines three orthogonal axes with associated antennas. By fast switching between the individual probe antennas, the probe can effectively receive signals from most directions. The switching rate is high compared to the sweep time of the spectrum analyzer, so that many probe antenna states are used for each sweep point.

  The Aaronia probe contains both loop and dipole type of antennas, where the former is best suited for frequencies below about 1.5 GHz and the latter is best above this frequency.
- A laptop for controlling the spectrum analyzer and the probe antenna, as well as collecting the acquired data.

The setup is shown in Figure 1.

Figure 1: The equipment as used during the field measurements. The probe antenna is mounted on the pole on top, and the box contains the spectrum analyzer, laptop computer and battery power supply.

A measurement is defined as a series of *snapshots* of the spectrum. Due to the properties of the probe, a snapshot is obtained as two separate sweeps by the spectrum analyzer, called low-band and high-band, covering two different parts of the desired spectrum 450-6000 MHz. Table 1 shows an overview of the settings.

For each measurement location, the best settings of the probe gain and the spectrum analyzer pre-amplifier were selected according to the spectrum power levels.

Two types of measurements were performed:

- *Short term measurements*, with a duration of 30 minutes, as specified by the ICNIRP guidelines in [1] and corresponding to about 600 snapshots when a new snapshot is initiated immediately after the previous snapshot.
- *Long term measurements,* where a spectrum snapshot was obtained every 30 s for a period of about one week. This type of measurement is intended to allow analysis of long-term changes in the spectrum.

Short term measurements were made at all the locations defined in Sec. 4. It is noted that for the "Football Stadium" location the measurement duration was 150 minutes (and not 30 minutes) in order to include activity in all the different main parts of the match.

Long term measurements were made at the "Education inst., Create" location., selected since potentially many persons may be in the vicinity, with nearby student lecture rooms and study areas, as well as a large canteen area. In addition, the location allows some protection of the equipment against theft and vandalism.

	Low-band sweep	**High-band sweep**
No. of sweep points	1051	4500
Sweep start frequency	450 MHz	1501 MHz
Sweep stop frequency	1500 MHz	6000 MHz
Sweep time	0.29 s	1.3 s
Resolution bandwidth	1 MHz	
Video bandwidth	50 MHz	
Detector	RMS	
Reference level	0 dBm	
Attenuator	0 dB	
Pre-amplifier	On / Off selected depending on location	
No. Snapshots / measurement location	Approx. 600 (short meas. type)	
Probe antenna type	Loop	Dipole
Probe antenna switching rate	50.125 kHz	
Probe antenna LNA gain selection	0 dB / 15 dB / 30 dB selected depending on location	

Table 1: Overview of the measurement system setup.

4 Measurement Locations

Measurements were performed at 22 different locations as described in Table 2 and Table 3 below. Photos of the measurement locations are shown in Appendix C.

Location name	Description
Education inst., Corridor	In the first floor corridor of the building on Selma Lagerløfs Vej 312, where computer science students at Aalborg University have group rooms. See photos in Sec. C.1. Date: 2022-10-12 17:08:04
Education inst., Kitchen	In the student common room / kitchen at the first floor of Selma Lagerløfs Vej 312, AAU. See photos in Sec. C.2. Date: 2022-10-13 11:49:45
Education inst., Create	Level 2, overlooking the canteen area inside the building housing the Department of Architecture, Design, and Media Technology at AAU. In this building corridors on all levels 1-4 are open to one side, so that they overlook an inner open space in the full building height. See photos in Sec. C.3. Date: 2022-11-02 13:56:06
Education inst., Lab	Inside the Antennas, Propagation and Millimetre-Wave Systems (APMS) laboratory area, AAU at the 3rd floor of Selma Lagerløfs Vej 312, Aalborg. Date: 2022-10-14 14:22:40
Office area	A large open office area with light partitions (with height about 1.8m). Used by the Aalborg branch of Samsung. Date: 2022-10-17 10:12:50
Bus station	The location is in the waiting room at the central bus station in Aalborg. See photos in Sec. C.5. Date: 2022-10-17 12:36:29
Train station	At platform 4 at the train station at the center of Aalborg. See photos in Sec. C.6. Date: 2022-10-17 13:55:10
Single fam. house	The location is in the kitchen of a traditional Danish single-family house from the 1970s, refurbished with energy-efficient windows. The kitchen itself was unused during the measurement, but two persons with mobile phones were nearby in the house, where also a Wi-Fi network was active. The nearest mobile base stations were about 350 m away and visible from the kitchen window. Date: 2022-10-17 15:22:10
Airport Gate	In the waiting area of gate 3 at Aalborg Airport. Measurements made during 30 min up to the boarding of a plane prior to departure. See photos in Sec. C.7. Date: 2022-10-18 14:47:07
Airport Entry	Entrance hall of Aalborg Airport. See photos in Sec. C.8. Date: 2022-10-18 15:25:49
Shopping arcade, Bilka	Inside the shopping arcade “Aalborg Storcenter”, near the check-out of the “Bilka” store. See photos in Sec. C.9. Date: 2022-10-19 12:08:45

Table 2: Overview of the measurement locations, part one.

ocation name	Description
Shopping arcade, Center	Inside the shopping arcade “Aalborg Storcenter”, at the central square. See photos in Sec. C.10. Date: 2022-10-19 12:45:33
Shopping arcade, Alley	Inside the shopping arcade “Aalborg Storcenter”, in one of the “streets” with shops on both sides. See photos in Sec. C.11. Date: 2022-10-19 13:22:00
City Apartment 1	Inside an apartment at the center of Aalborg, on the ground floor of a building on the street “Kattesundet”. The nearest base station is on Vesterbro 99, some 90 m away, but not visible from the apartment windows. Date: 2022-10-19 14:48:02
City Apartment 2	Inside an apartment in the center of Aalborg, on the 1st floor of a building on the street “Borgergade”. The nearest base stations are on Vesterbro 99, some 125 m away and on Vesterbro 125, some 150 m away. Date: 2022-10-19 15:49:08
Football Stadium	Inside Aalborg football stadium during a match. Measurements took place both before and during the game, as well as in the intermission. The match had an audience of about 6,500 persons. The location of the measurement device was on the “player area” just behind the player bench/shed, in front of one of the stadium grandstands. See photos in Sec. C.4. Date: 2022-10-24 18:29:08
Salling Rooftop	Salling department store - Level 2 of the “Rooftop”: Bar & Skywalk. Outdoor location in terrace area. The measurement location is about 5 m from the entrance to the terrace. It is noted that base station antennas are placed a few meters above this location and about 22 m away. See photos in Sec. C.12. Date: 2022-10-26 11:07:31
Salling Øverste	Top floor of the Salling department store; teen fashion area. See photos in Sec. C.13. Date: 2022-10-26 11:46:41
Salling Algade	Middle floor of the Salling department store; women’s handbags. See photos in Sec. C.14. Date: 2022-10-26 12:24:08
Salling Nytorv 1	Bottom floor of the Salling department store; near escalators. See photos in Sec. C.15. Date: 2022-10-26 12:59:02
Salling Nytorv 2	Bottom floor of the Salling department store; men’s fashion. See photos in Sec. C.16. Date: 2022-10-26 13:33:14
Salling Outdoor café	Salling department store - Level 1 of the “Rooftop”: Bar and Cafe. Measurement location was on the outdoor area. It is noticed that base station antennas are visible and close by, see Sec. C.17. Date: 2022-10-26 14:13:42

Table 3: Overview of the measurement locations, part two.

5 Data Processing

The overall steps in the processing of the acquired measurement data consists of the following main steps for each measurement:

1. The average power over snapshots is computed.
2. The average power is compensated for the noise floor of the measurement system. The noise floor depends on the frequency and selected amplifier settings.
3. The power spectral density is computed from the average power using known antenna properties.
4. The power density is normalized to the frequency dependent reference level, as specified by ICNIRP (see Table 5 in [1]). The reference level provides a practically useful metric and is an “equivalent level of protection to the basic restrictions for worst-case exposure scenarios”, see the section “Guidelines for limiting radiofrequency EMF exposure” in [1]. Figure 2 shows a graphical representation of how the reference level varies with frequency.
5. The power density (both normalized and un-normalized) is analyzed by computing the sum power in selected frequency bands, as specified by ICNIRP, see the section “Simultaneous Exposure to Multiple Frequency Fields” in [1], where it is noted that only the power density within the 450-6000 MHz band is included in this work.

In total 67 frequency bands are used for the final step above, as defined in Appendix D. These bands include licensed bands, for example used by operators for 2G, 4G, 5G cellular systems and digital terrestrial TV, as well as unlicensed bands such as Wi-Fi and short-range devices. It is noted that a special frequency band “Other” is defined to be residual band not used by any of the other bands in the list. Hence, this band mainly serves to show how well the power density is represented by the rest of the defined bands.

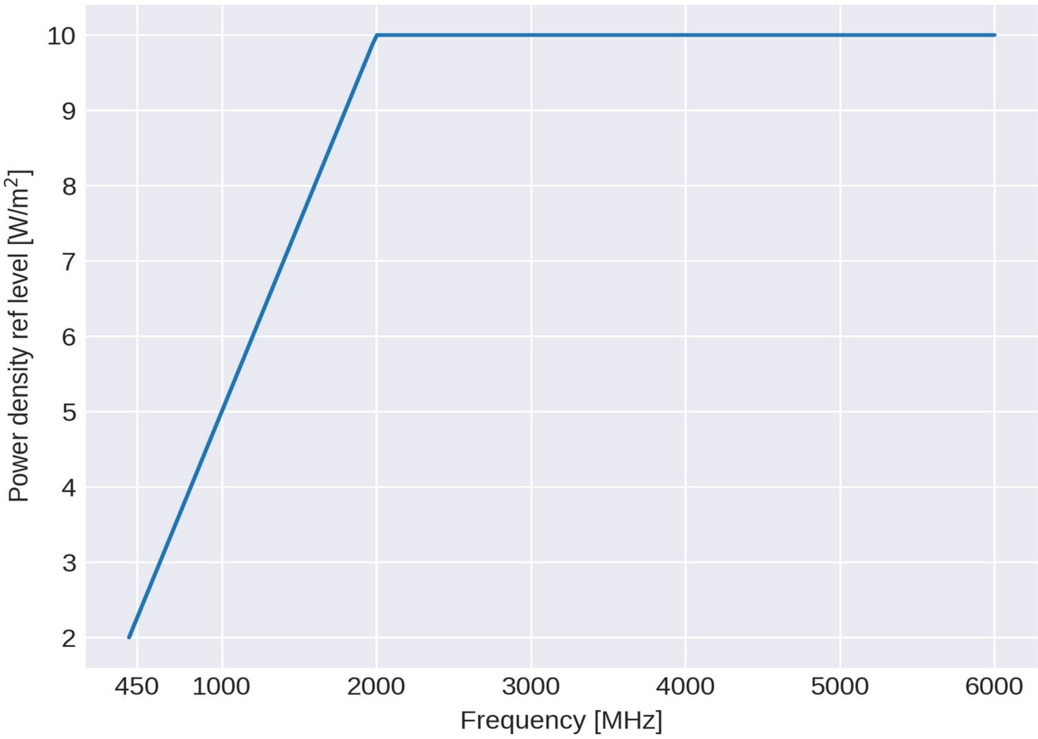


Figure 2: Power density reference levels.

6 Results and Discussion

Plots of both the measured power density and power density normalized to the reference levels are given in Appendix E, for all the measurement locations and defined sub-bands. The results for the different locations are shown in individual pages, where the lower plot is the measured power densities in absolute terms, and the upper plot is the power densities relative to the reference levels in %.

As is customary, the power densities are shown in dBm/m^2 which is a logarithmic scale suitable for showing results with large differences in magnitude. Most of the values observed are in the range - 80 dBm/m^2 to 0 dBm/m^2 which corresponds to between 10^{-11} W/m^2 and 10^{-3} W/m^2, and the ratio between these values is thus 100 million. Note that when the power received by the spectrum analyzer is too small to register reliably, the result is omitted and the corresponding bars/columns in the plots are missing. Figure 3 shows an example of the measured power density for the full frequency band.

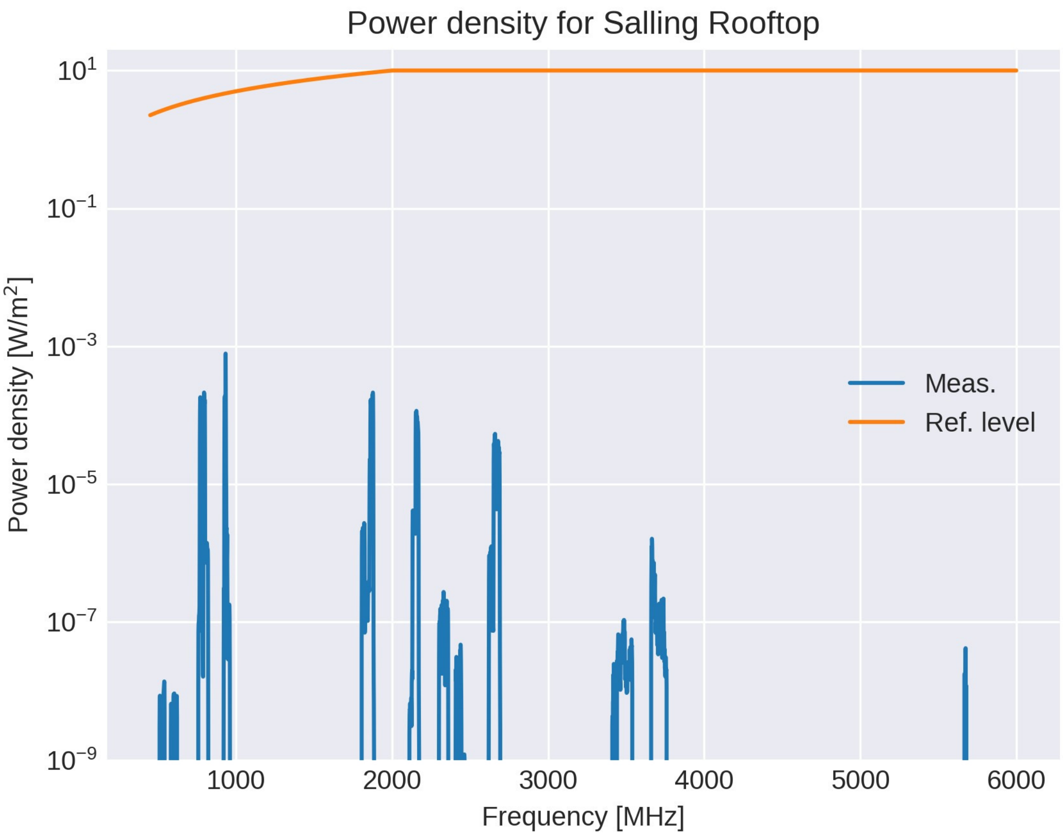


Figure 3: Example of the power density for all of the measured frequencies compared to the reference level.

As seen in Appendix E, the measured power densities in the different bands varies considerably among the locations, but generally the bands used for mobile communications are the most prevalent. However, Wi-Fi communication is also visible at some locations at both 2.4 GHz (e.g. “Office area”) and 5.8 GHz bands (e.g. “Education inst., Corridor”).

“Short range devices” is dominant at both the “Airport Entry” and “Shopping arcade, Bilka” locations, possibly due to use of RFID scanners.

The GSM-R band has significant power only at the “Bus station” and “Train station” locations, which is expected since this system is used for communication by the railways and coverage is not needed for this system at the other locations.

The highest power densities were found at the “Salling Rooftop” location. It is not surprising that high values are observed here, since this location is almost at the level of the base station antennas and within about 22 m of it. Despite this, the measured maximum density is a mere 0.04% of the density reference level. Note however, that there are several bands with similar levels at this location.

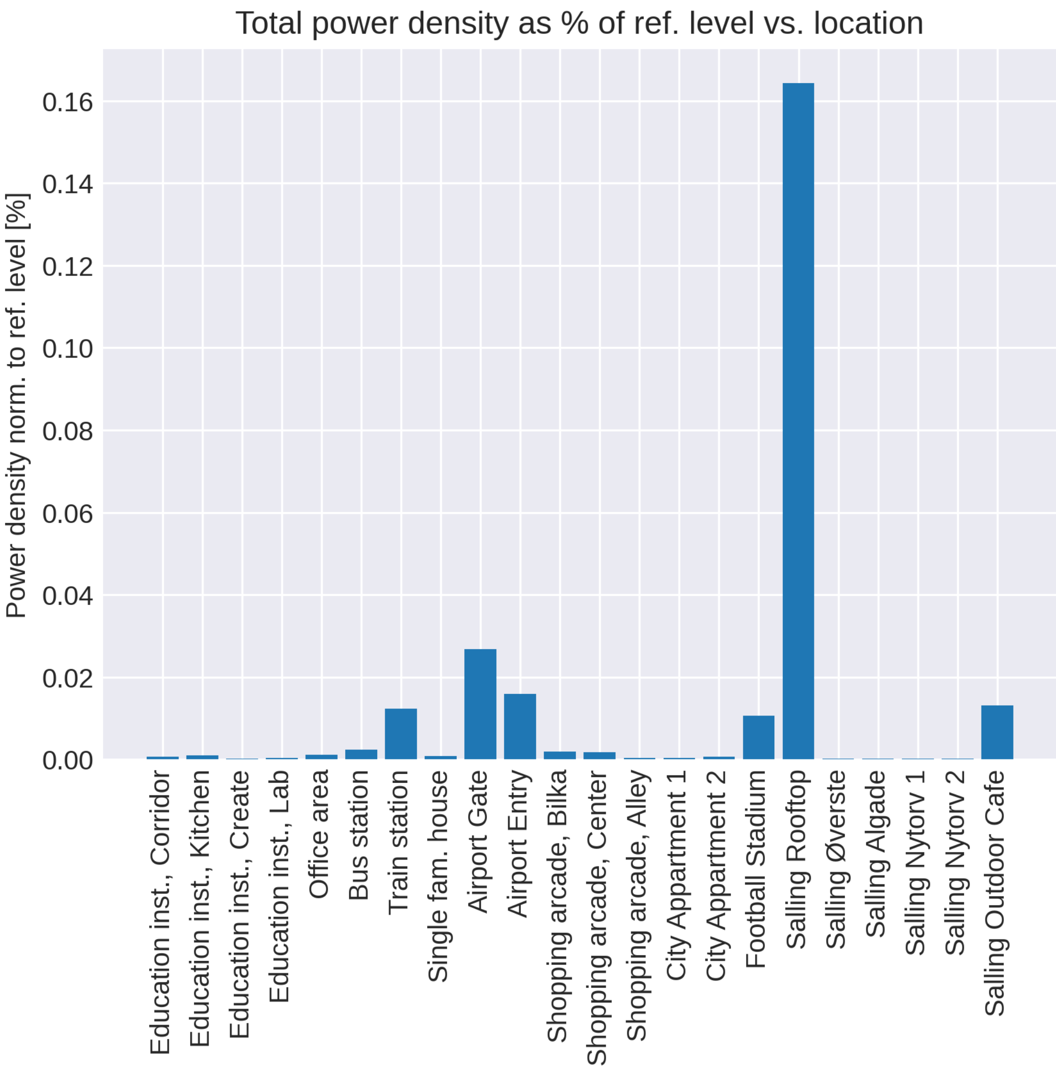


Figure 4: The total power in the measured 450-6000 MHz band, computed as the summation of the power normalized to the reference level for each frequency sample.

The total power density is defined as the summation of the power density normalized to the reference level measured for the entire frequency band, and thus shows the exposure within the band 450-6000 MHz. An overview of the total power density for the different locations is given in Figure 4. Here it is noticed that the “Salling Rooftop” location has the highest value by far, but the exposure is only about 0.164% of the reference level. The other locations have a much smaller total power densities, where the 2nd largest has a value of 0.027%, again with the power mainly coming from cellular networks.

As described in Sec. 3, a series of snapshots were made at the “Education inst, Create” location during a period of about one week. Figure 5 shows how the power density varies during this period, where the red line is for the total power received in the entire measured band 450-6000 MHz. Averaging has been applied to reduce the fluctuations of the highly dynamic signals, so that each point in the graph is based on averaging of the 60 snapshots obtained in a 30 minute period, the same duration as that of the short term measurements (see Sec. 3).

The graphs in Figure 5 show that the density depends on the day, with a generally lowest density observed during nighttime and a higher density observed during the daytime, as might be expected. Two examples of the densities resulting from cellular networks are given for a down-link (DL) band (base station transmitting), shown with blue color, and an up-link (UL) band (mobiles are transmitting), shown with orange color. Again, the density is low during nighttime and high during daytime for both bands. However, the highest variation is observed for the UL band where most of the activity is likely generated by mobile phones in the vicinity of the measurement probe antenna. Since the measurement location is an educational institution which is mostly empty during the evening and night, this results in a large variation in the power density for the UL band. Given the variation in the power density depending on the time of measurement, it is important to consider carefully when to perform measurements of shorter duration, such as the short-term (30 minute) measurements discussed earlier. It is noted that all the short-term measurements analyzed in this report were carried out during daytime and on work days, where most activity is expected.

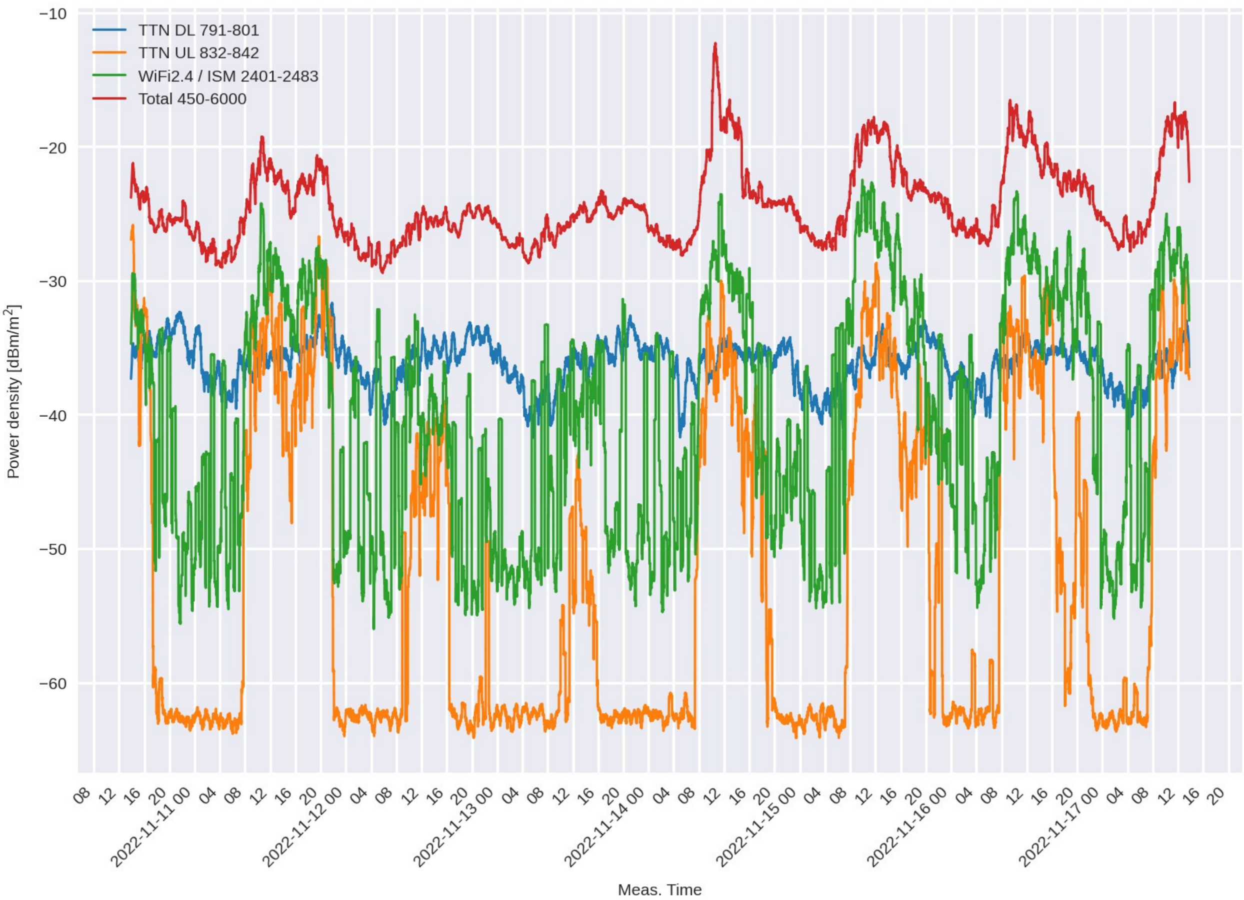


Figure 5: The power density, measured during 7 days at the site "Education inst., Create". A moving average with a window size of 30 minutes was applied to the original spectrum snapshots obtained with an interval of 30 seconds.

Figure 6 shows power density in % of the reference level and how it varies during the 7 days measurement period. Again, the red curve represents the total 450-6000 MHz band and the other curves examples of smaller bands. It is noted that the large variations in the power density (in

Figure 5) are visible due to the use of a logarithmic scale (dBm), but when compared to the reference values in %, most of the variations are small and difficult to see in the linear scale. Most importantly, all of the values are in the range of about 0.000019 - 0.00062 %.

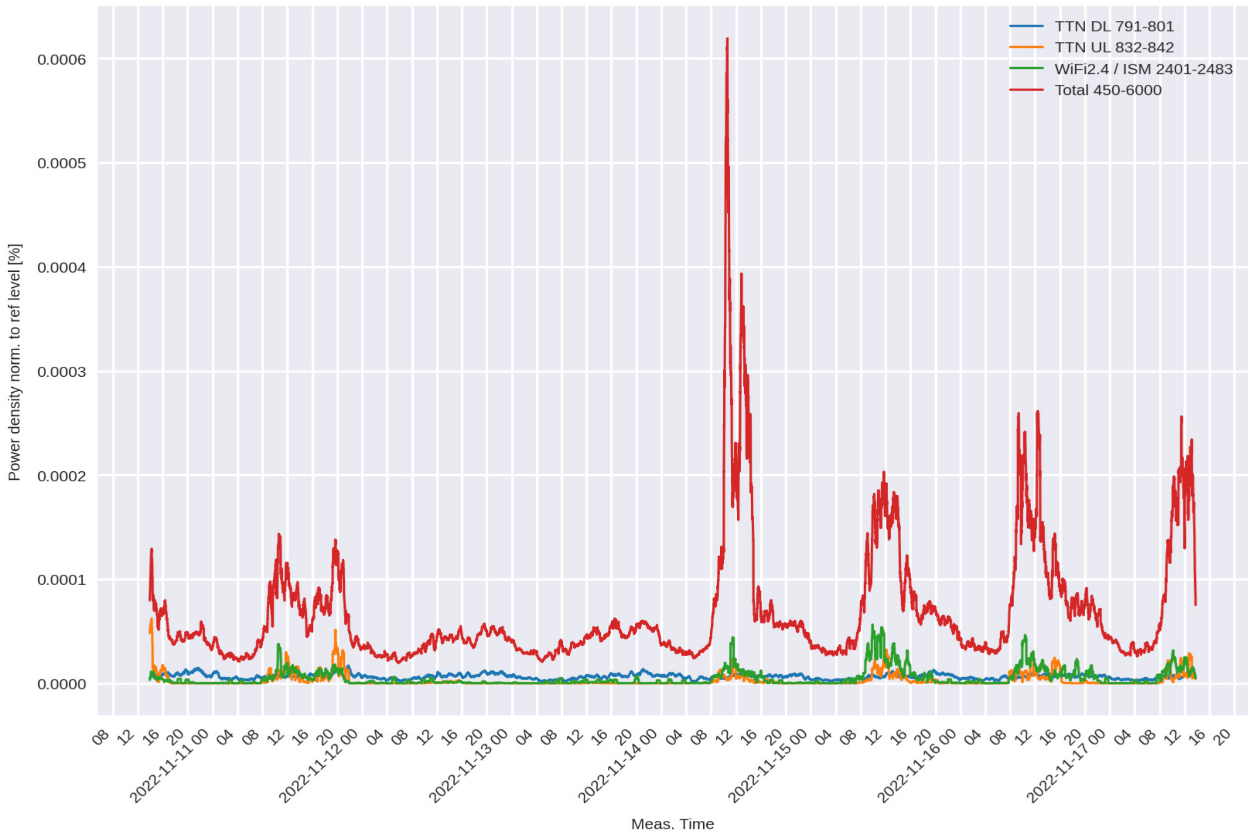


Figure 6: The power density in % of the reference level, measured during 7 days at the location "Education inst., Create". A moving average with a window size of 30 minutes was applied to the original spectrum snapshots obtained with an interval of 30 seconds.

Appendix A. Acronyms

EMF: electromagnetic field

ICNIRP: The International Commission on Non-Ionizing Radiation Protection

RFID: Radio frequency identification

GSM-R: Global System for Mobile Communications – Railway

UL: up-link

DL: down-link

Appendix B. References

[1] International Commission on Non-Ionizing Radiation Protection (ICNIRP). Guidelines for Limiting Exposure to Electromagnetic Fields (100 kHz to 300 GHz). Health Phys. 2020 May;118(5):483-524. Doi: 10.1097/HP.0000000000001210.

[2] Available at https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A31999H0519

[3] The Danish Agency for Data Supply and Infrastructure, https://eng.sdfi.dk

[4] Andersen, Jørgen Bach ; Pedersen, Gert F. / Stråling fra Mobilmaster - et teknisk responsum. 2004. https://vbn.aau.dk/da/publications/str%C3%A5ling-fra-mobilmaster-et-teknisk-responsum

[5] Anritsu Field Master Pro MS2090A, https://www.anritsu.com/en-US/test-measurement/products/ms2090a

[6] Aaronia IsoLOG 3D Mobile 9kHz – 8GHz, https://aaronia.com/antennas/isolog-3d-mobile-isotropic/

Appendix C. Photos of measurement locations

C.1. Education inst., Corridor


Hold afstand

C.2. Education inst., Kitchen

C.3. Education inst., Create

C.4. Football Stadium

C.5. Bus Station

C.6. Train Station

C.7. Airport Gate

C.8. Airport Entry

C.9. Shopping arcade, Bilka


Carl's Jr.
Eat Like You Mean It
SPRØDE OG SAFTIGE
CHICKEN TENDERS
PANERET I RESTAURANTEN
MADE TO ORDER
Carl's Jr.
Eat Like You Mean It
FLAMMEGRILLEDE BØFFER MED
AUTENTISK SMAG
BEEF
ICE CREAM SHAKES
2SDAY
CALIFOR
ROILED BURGERS
FOOD TO GO
telenor
Kildevand

C.10. Shopping arcade, Center

C.11. Shopping arcade, Alley

C.12. Salling Rooftop

C.13. Salling Øverste

C.14. Salling Algade

C.15. Salling Nytorv 1

C.16. Salling Nytorv 2

C.17. Salling Outdoor Cafe

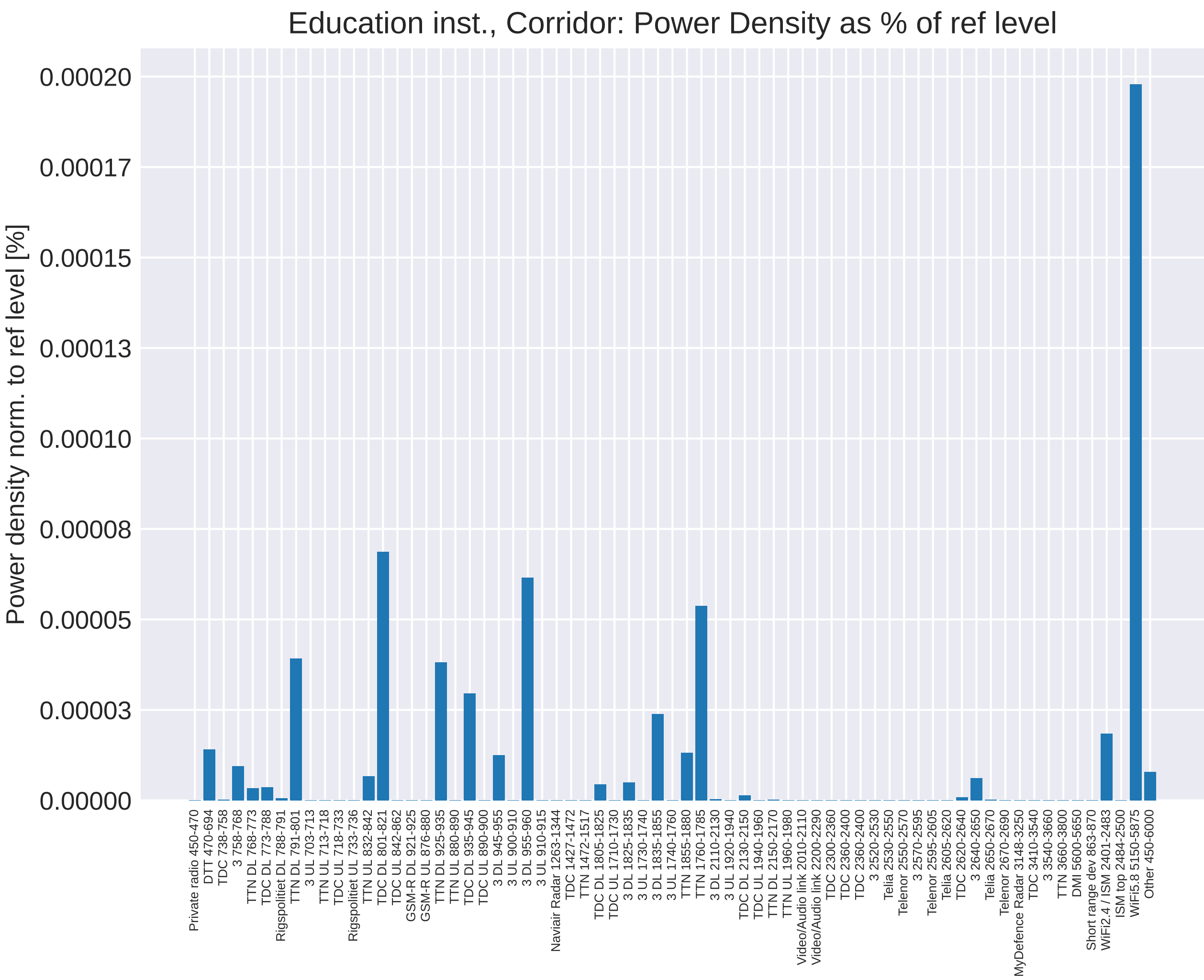
Appendix D. Frequency Bands

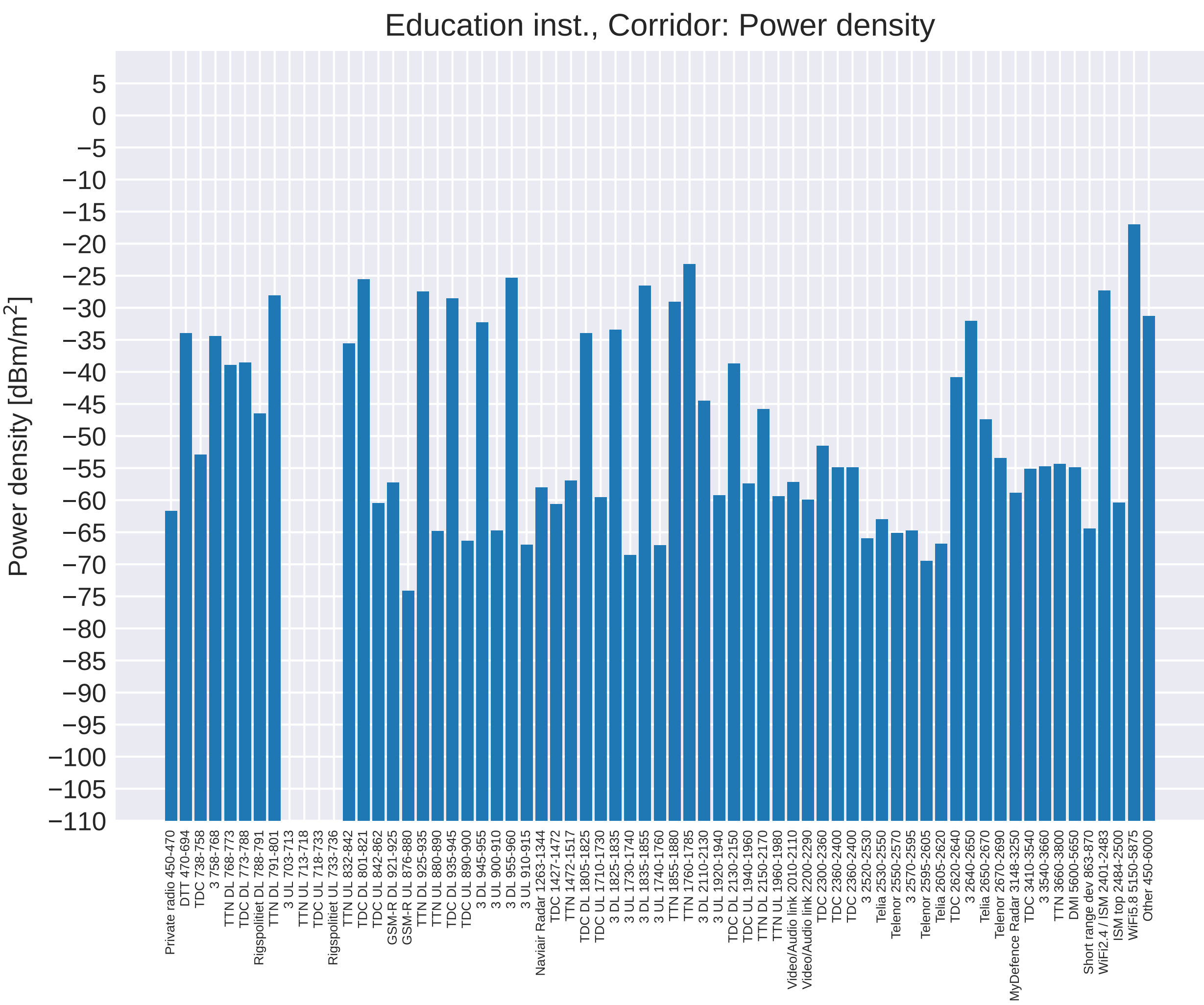
Band name	Start Frequency [MHz]	Stop Frequency [MHz]
Private radio	450	470
DTT	470	694
TDC	738	758
3	758	768
TTN DL	768	773
TDC DL	773	788
Rigspolitiet DL	788	791
TTN DL	791	801
3 UL	703	713
TTN UL	713	718
TDC UL	718	733
Rigspolitiet UL	733	736
TTN UL	832	842
TDC DL	801	821
TDC UL	842	862
GSM-R DL	921.1	925
GSM-R UL	876.1	880
TTN DL	925	935
TTN UL	880	890
TDC DL	935	945
TDC UL	890	900
3 DL	945	955
3 UL	900	910
3 DL	955	960
3 UL	910	915
Naviair Radar	1262.52	1344.36
TDC	1427	1472
TTN	1472	1517
TDC DL	1805	1825
TDC UL	1710	1730
3 DL	1825	1835
3 UL	1730	1740
3 DL	1835	1855
3 UL	1740	1760

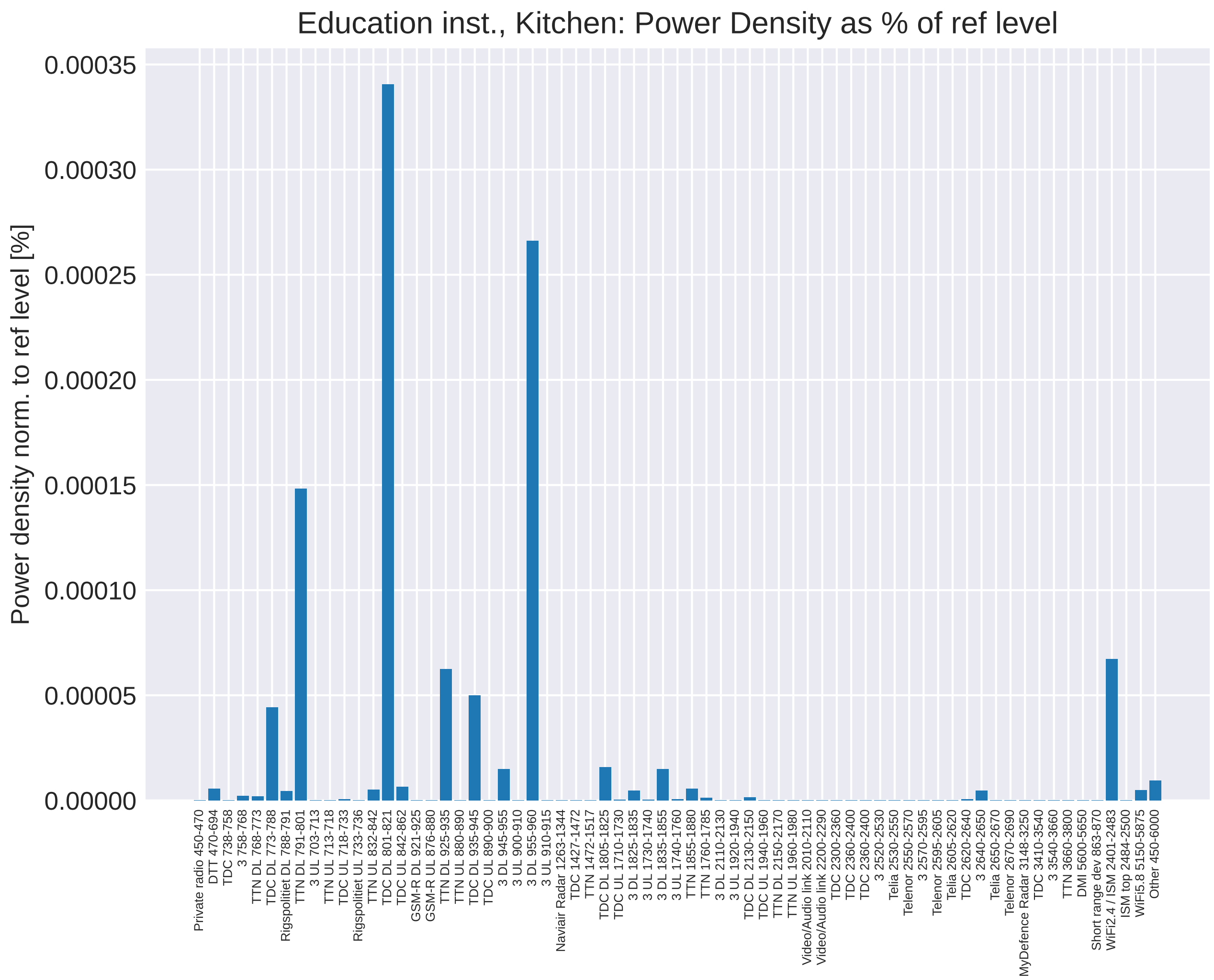
Band name	Start Frequency [MHz]	Stop Frequency [MHz]
TTN	1855	1880
TTN	1760	1785
3 DL	2110	2130
3 UL	1920	1940
TDC DL	2130	2150
TDC UL	1940	1960
TTN DL	2150	2170
TTN UL	1960	1980
Video/Audio link	2010	2110
Video/Audio link	2200	2290
TDC	2300	2360
TDC	2360	2400
TDC	2360	2400
3	2520	2530
Telia	2530	2550
Telenor	2550	2570
3	2570	2595
Telenor	2595	2605
Telia	2605	2620
TDC	2620	2640
3	2640	2650
Telia	2650	2670
Telenor	2670	2690
MyDefence Radar	3148	3250
TDC	3410	3540
3	3540	3660
TTN	3660	3800
DMI	5600	5650
Short range dev	863	870
WiFi2.4 / ISM	2401	2483
ISM top	2484	2500
WiFi5.8	5150	5875
Other	450	6000

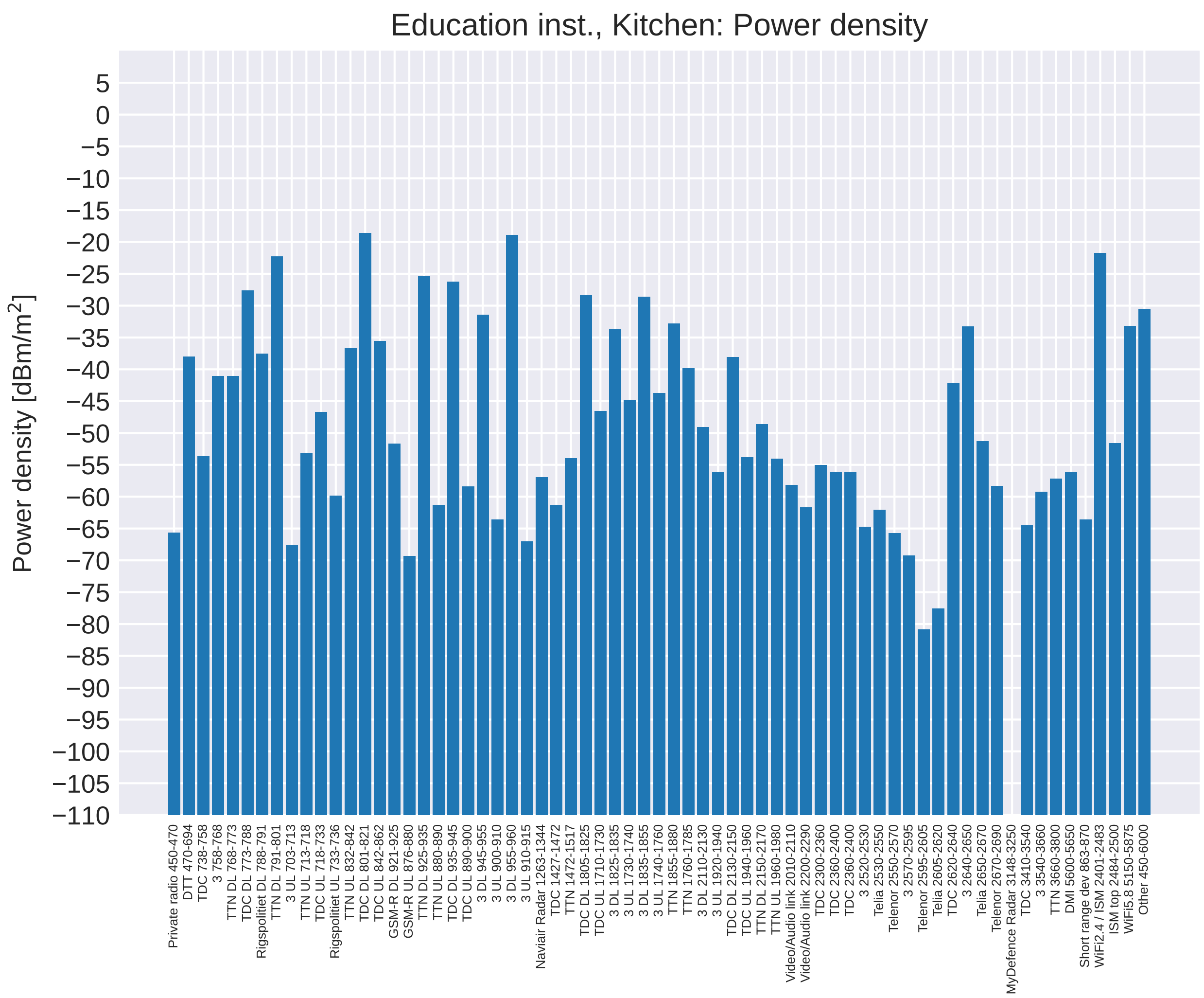
Appendix E. Results for each measurement location

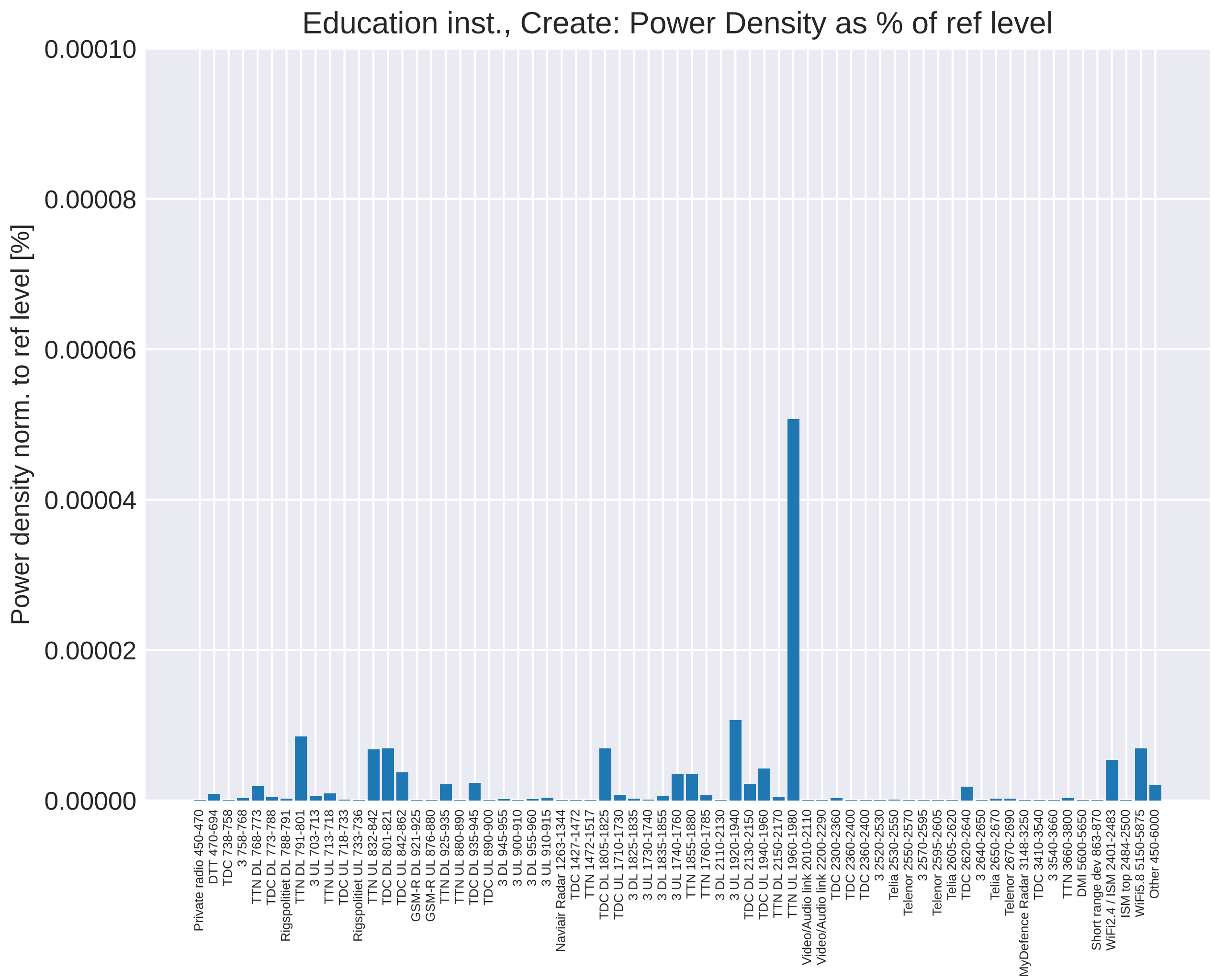
The following pages shows the measured power density and the power density normalized to the reference level for each of the sub-bands defined in Section 5 and for all of the measurement locations.

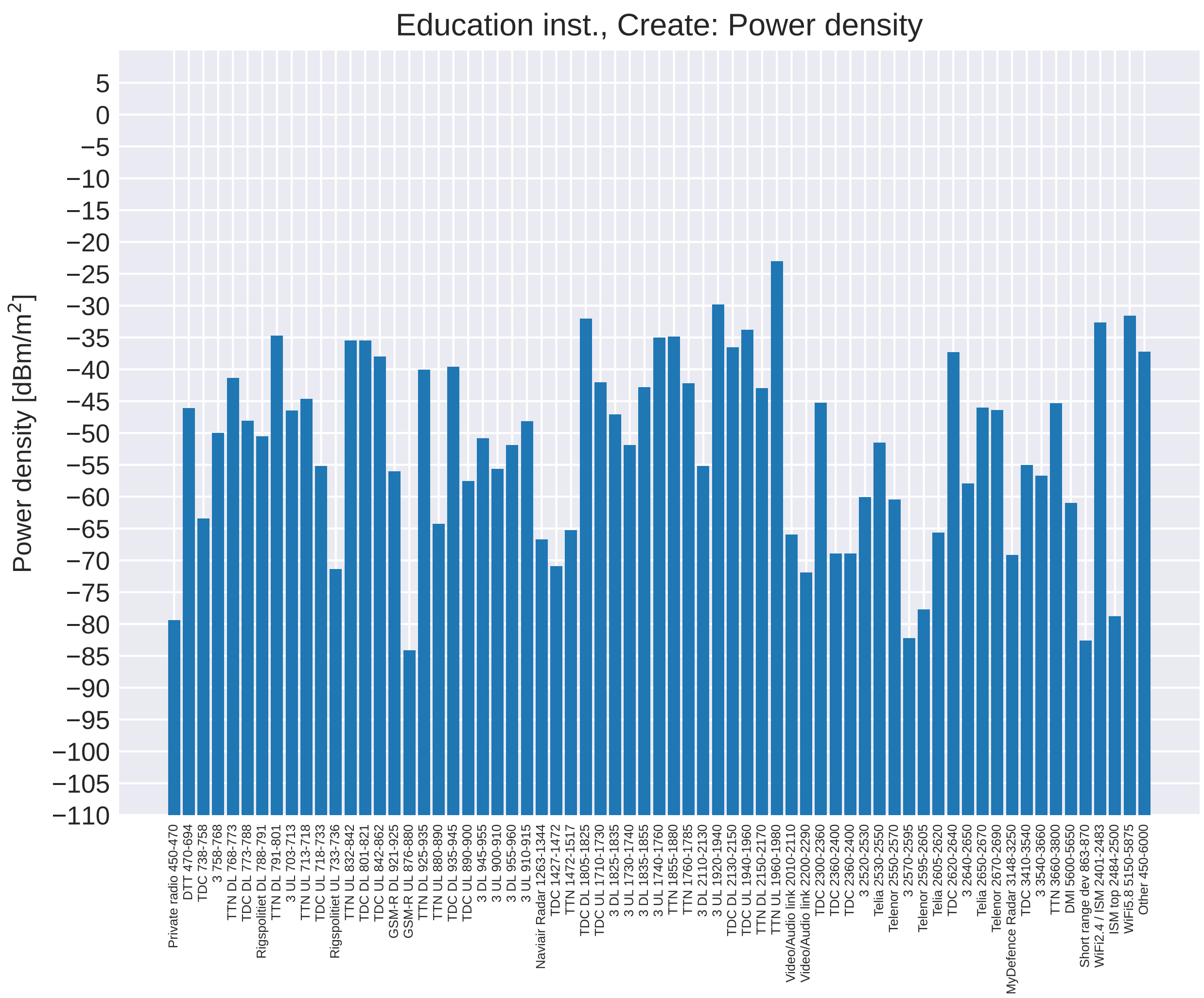

Education inst., Corridor: Power Density as % of ref level
Power density norm. to ref level [%]
0.00020
0.00017
0.00015
0.00013
0.00010
0.00008
0.00005
0.00003
0.00000

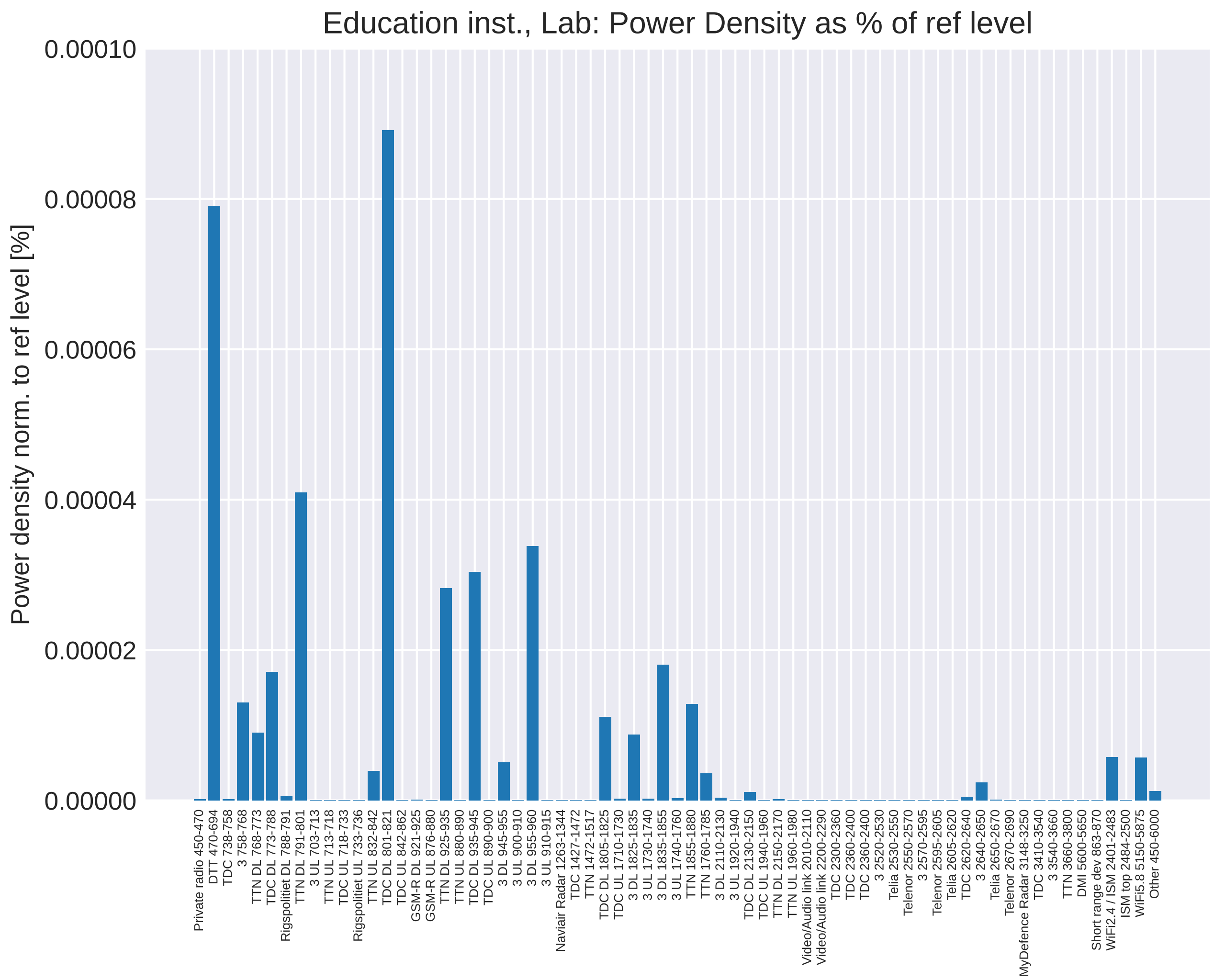

Education inst., Corridor: Power density
Power density [dBm/m2]
5
0
−5
−10
−50
−100
−110


Education inst., Kitchen: Power Density as % of ref level
Power density norm. to ref level [%]
0.00035
0.00030
0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

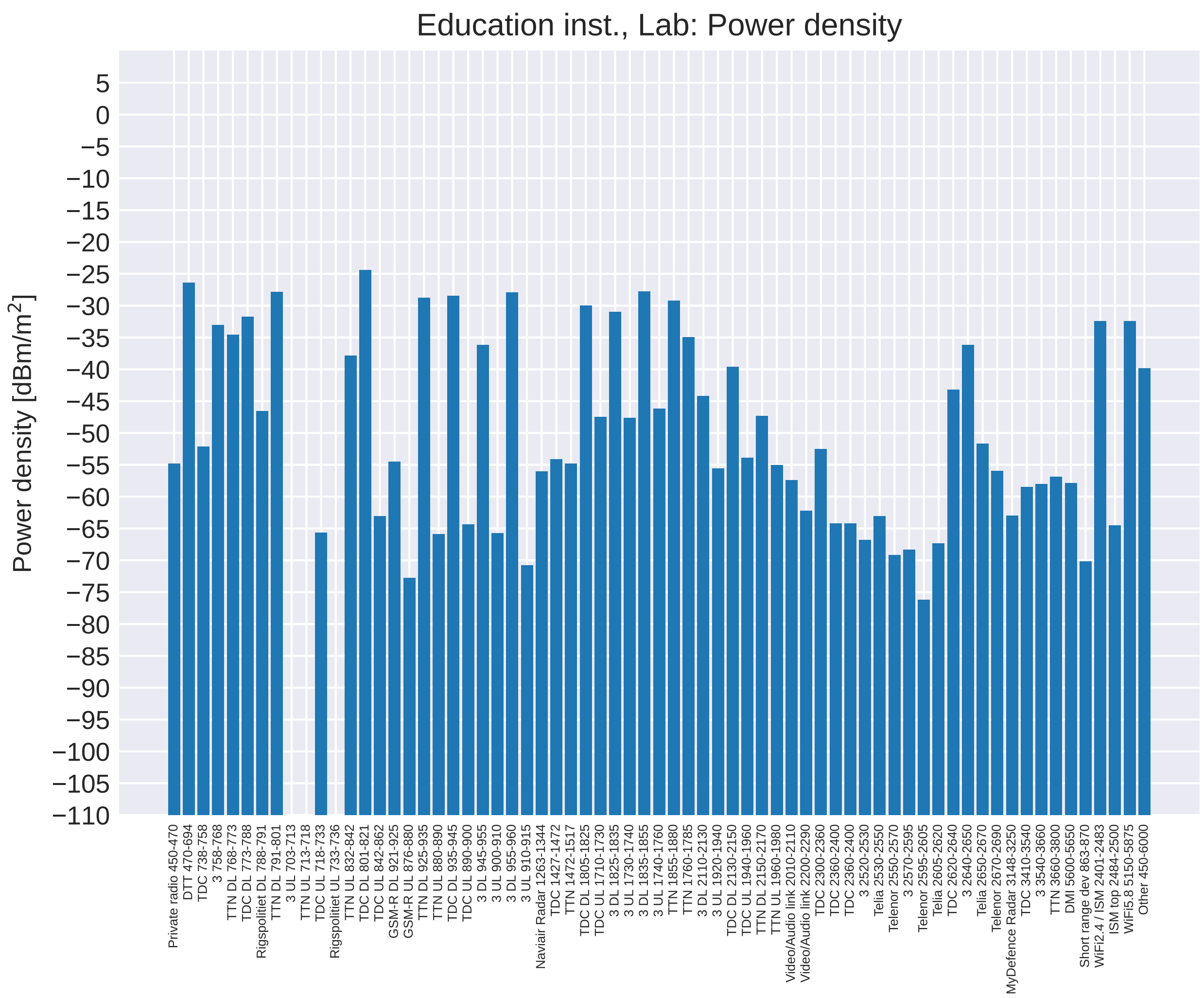

Education inst., Kitchen: Power density
Power density [dBm/m²]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000


Education inst., Create: Power Density as % of ref level
Power density norm. to ref level [%]

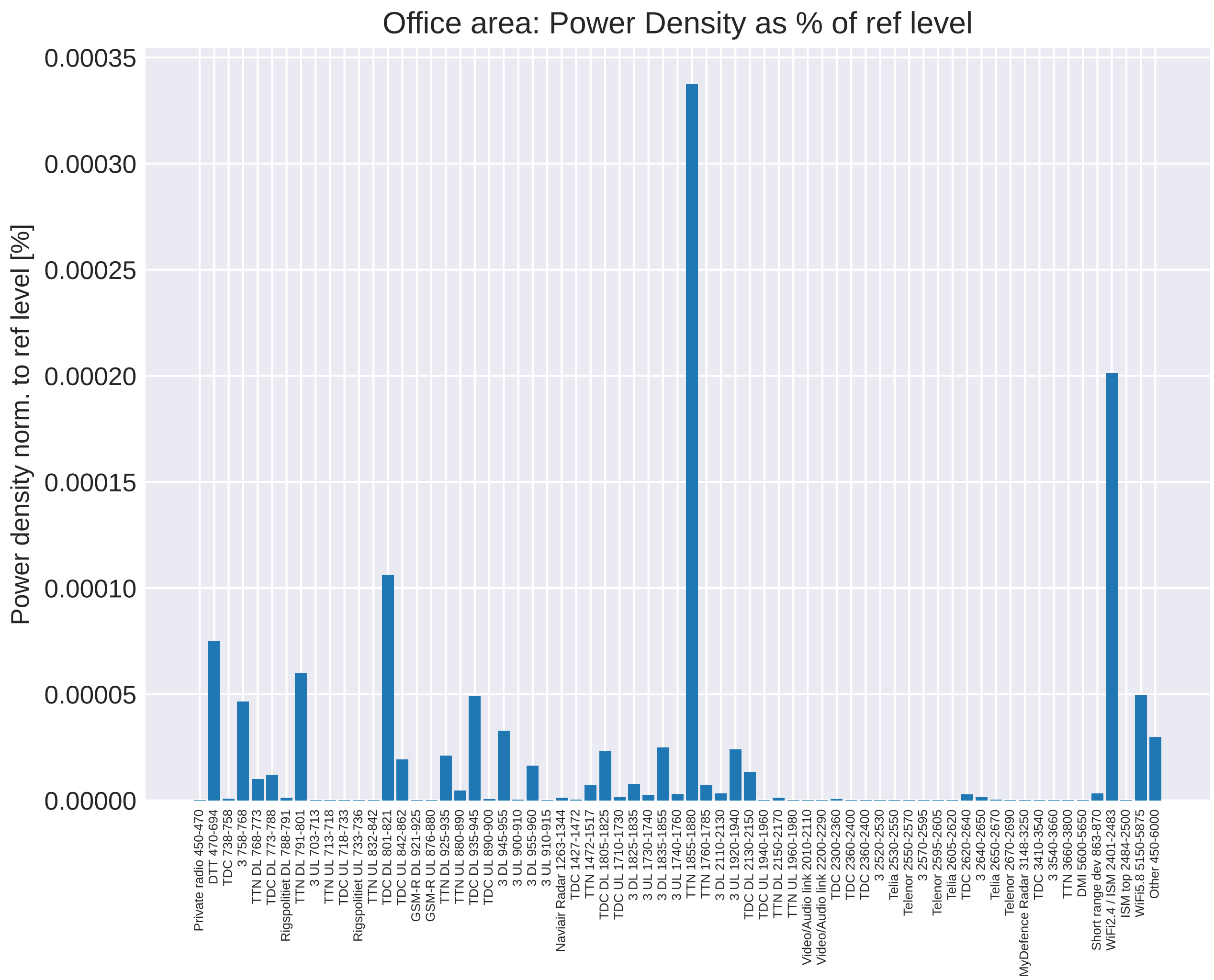

Education inst., Create: Power density
Power density [dBm/m2]

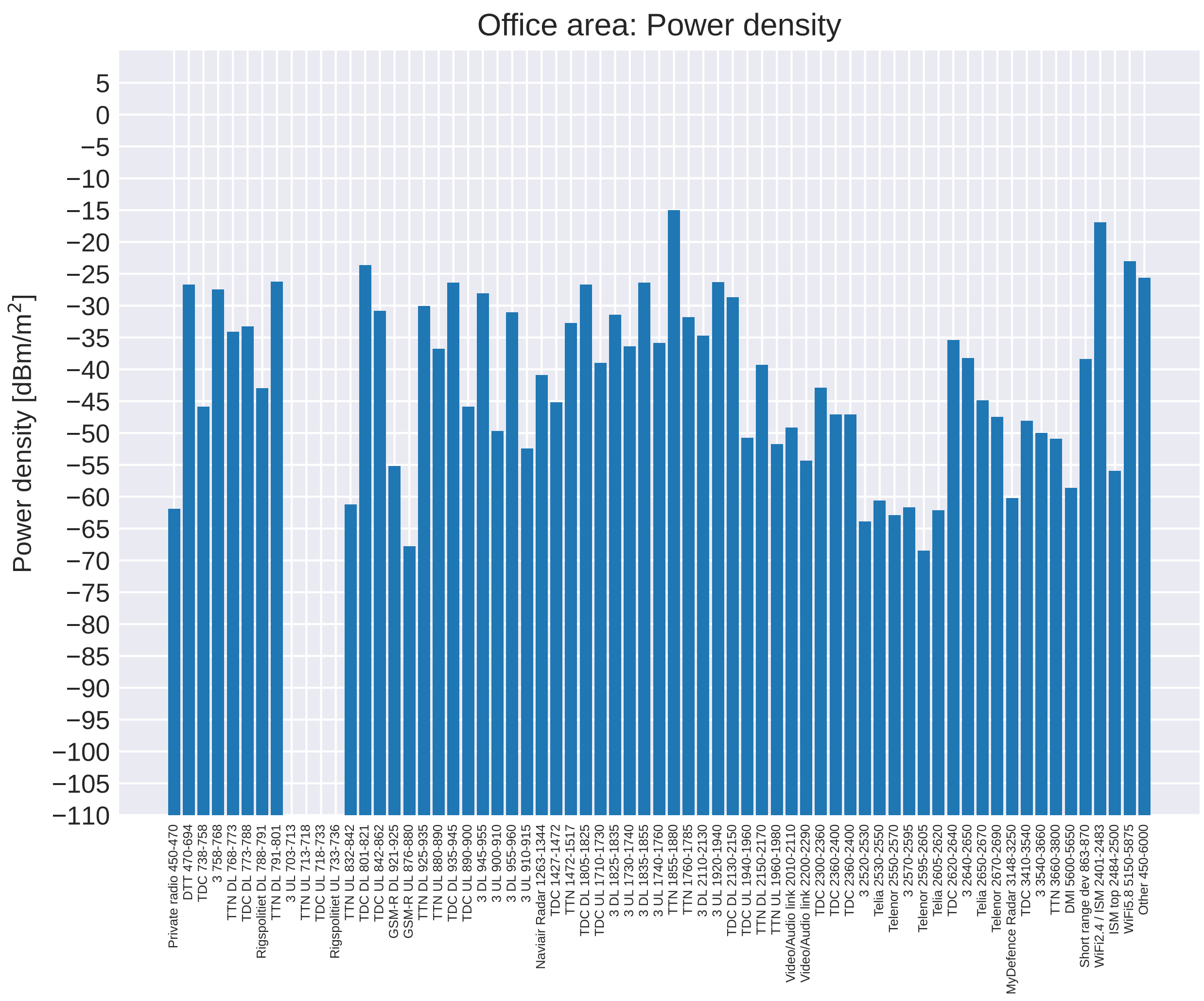


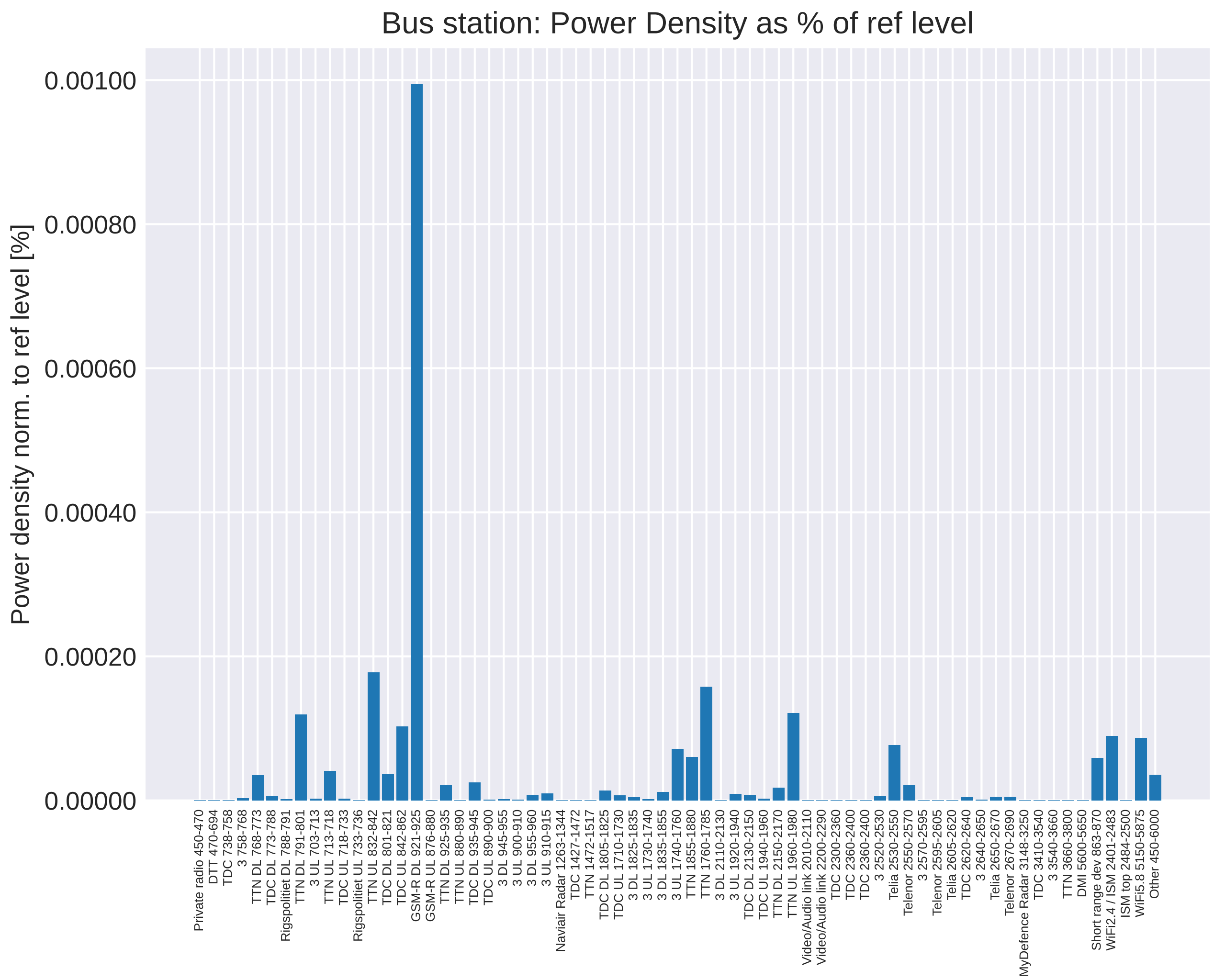
Education inst., Lab: Power Density as % of ref level
Power density norm. to ref level [%]

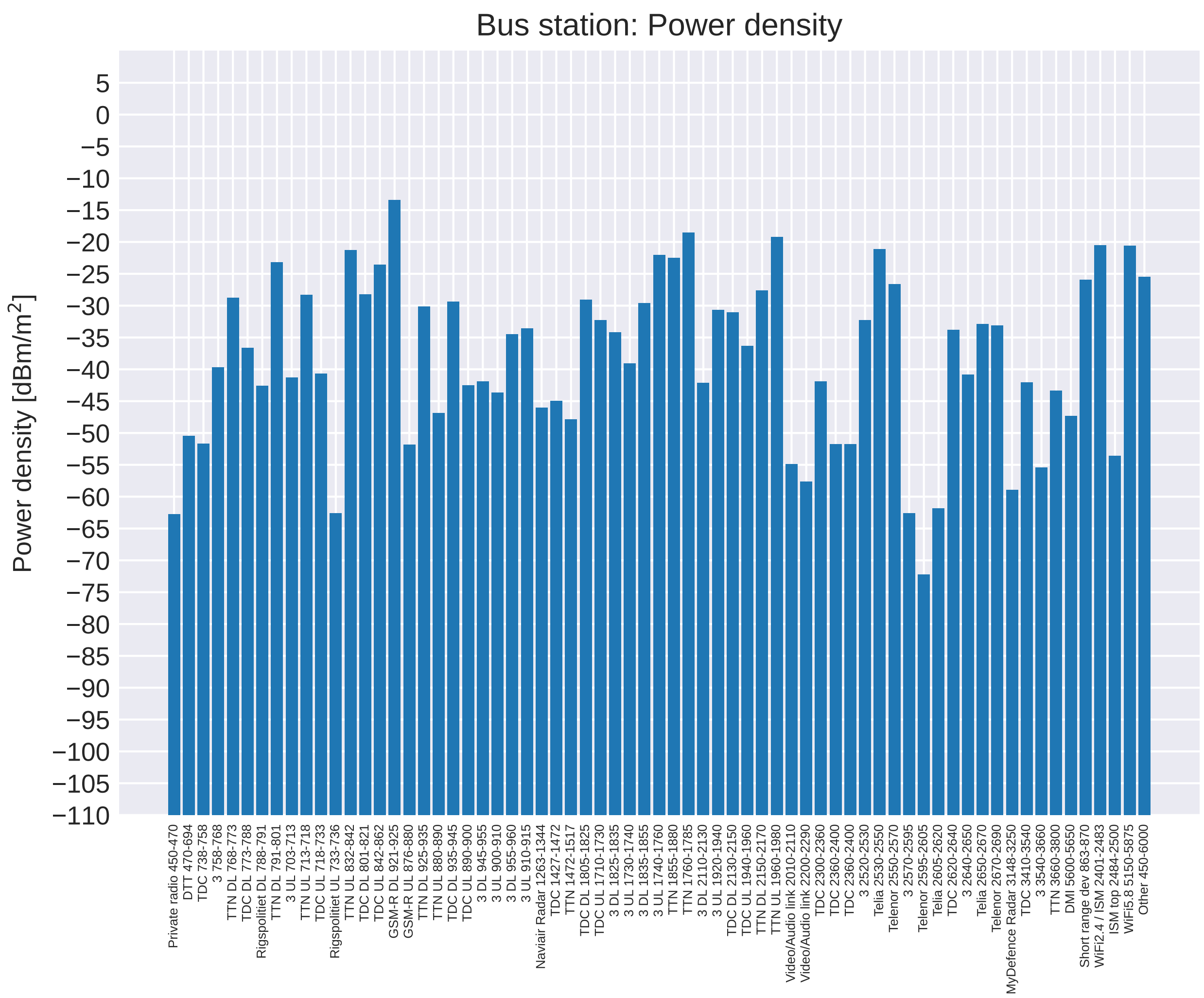


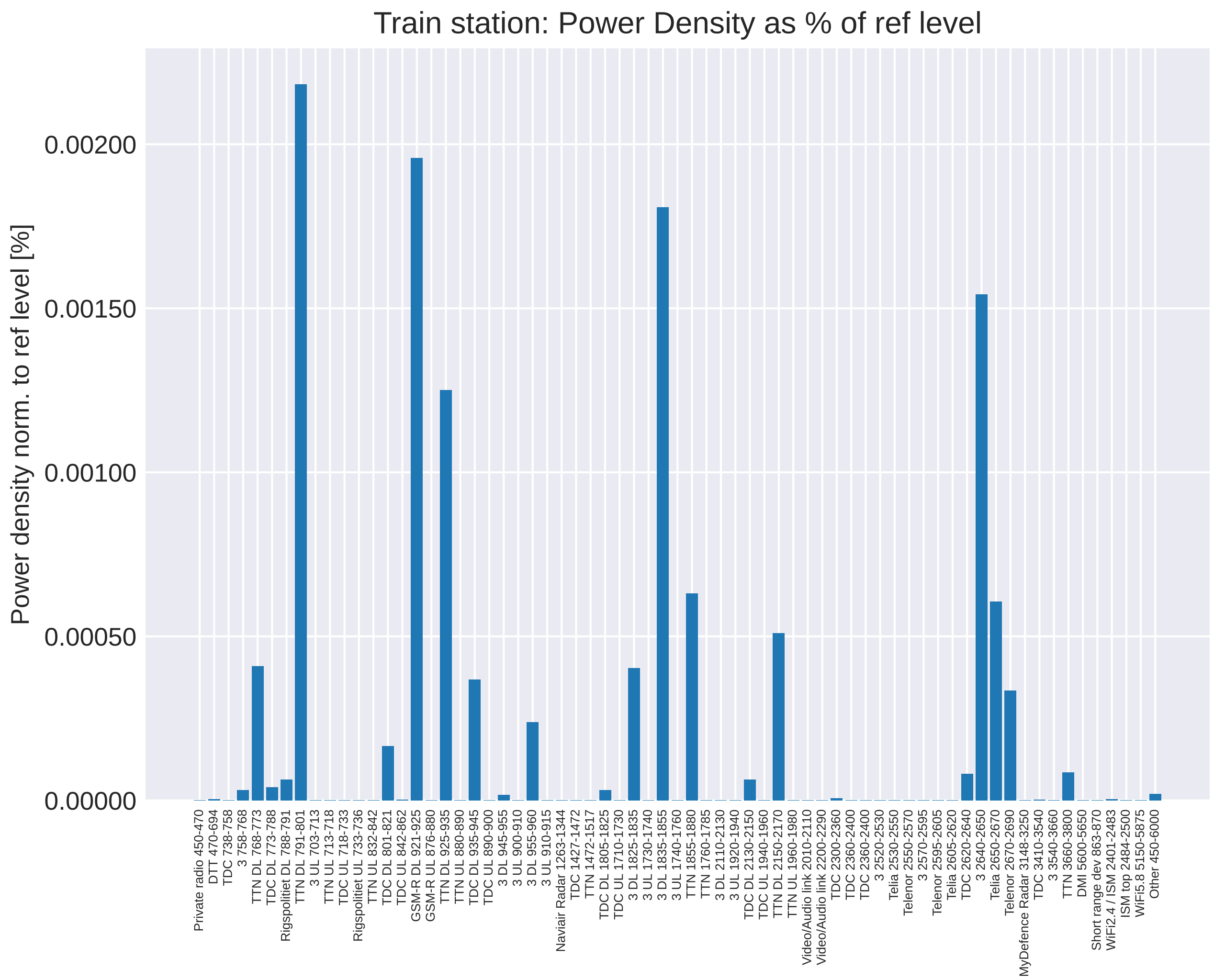
Education inst., Lab: Power density
Power density [dBm/m²]

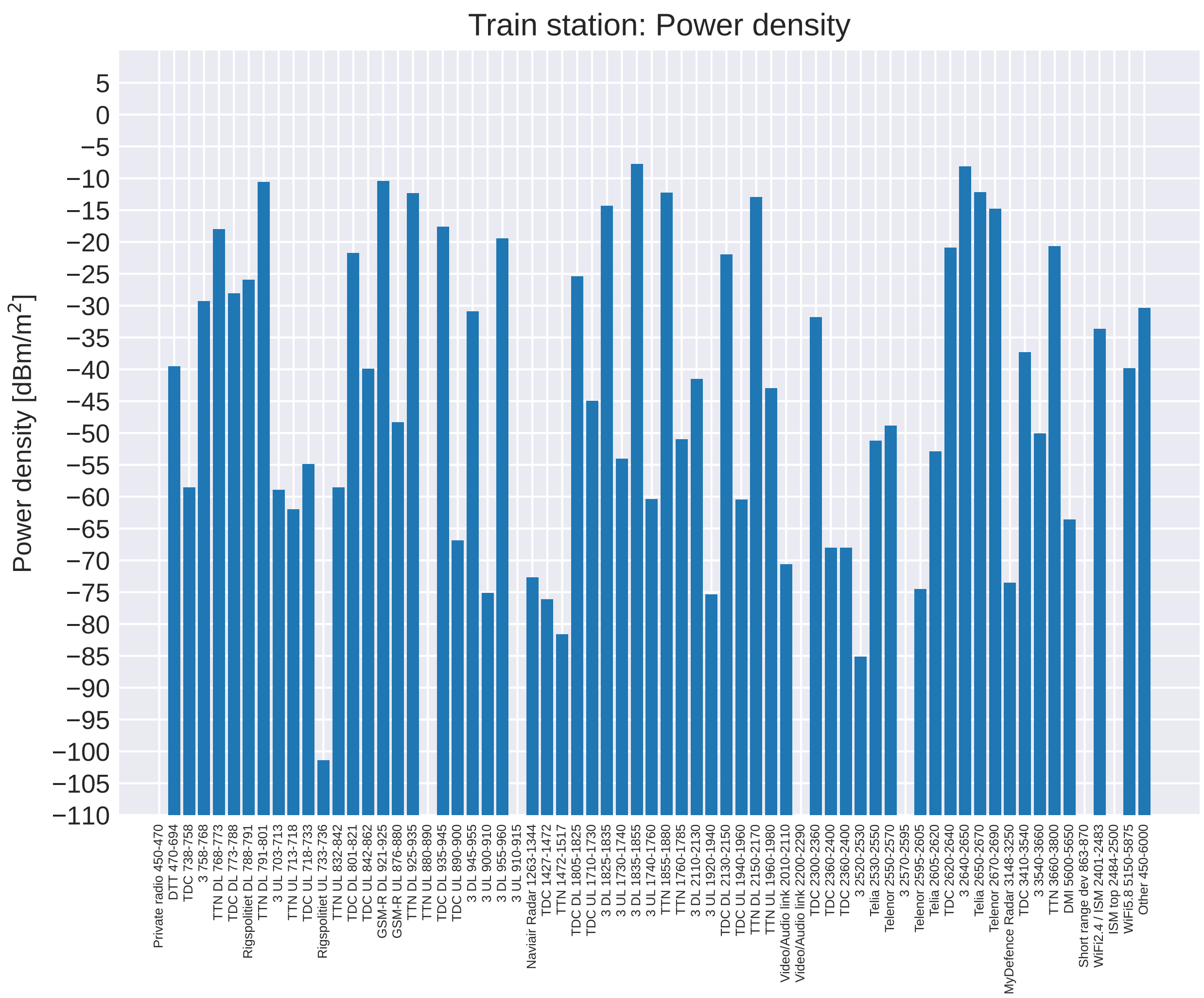

Office area: Power Density as % of ref level
Power density norm. to ref level [%]
0.00035
0.00030
0.00025
0.00020
0.00015
0.00010
0.00005
0.00000

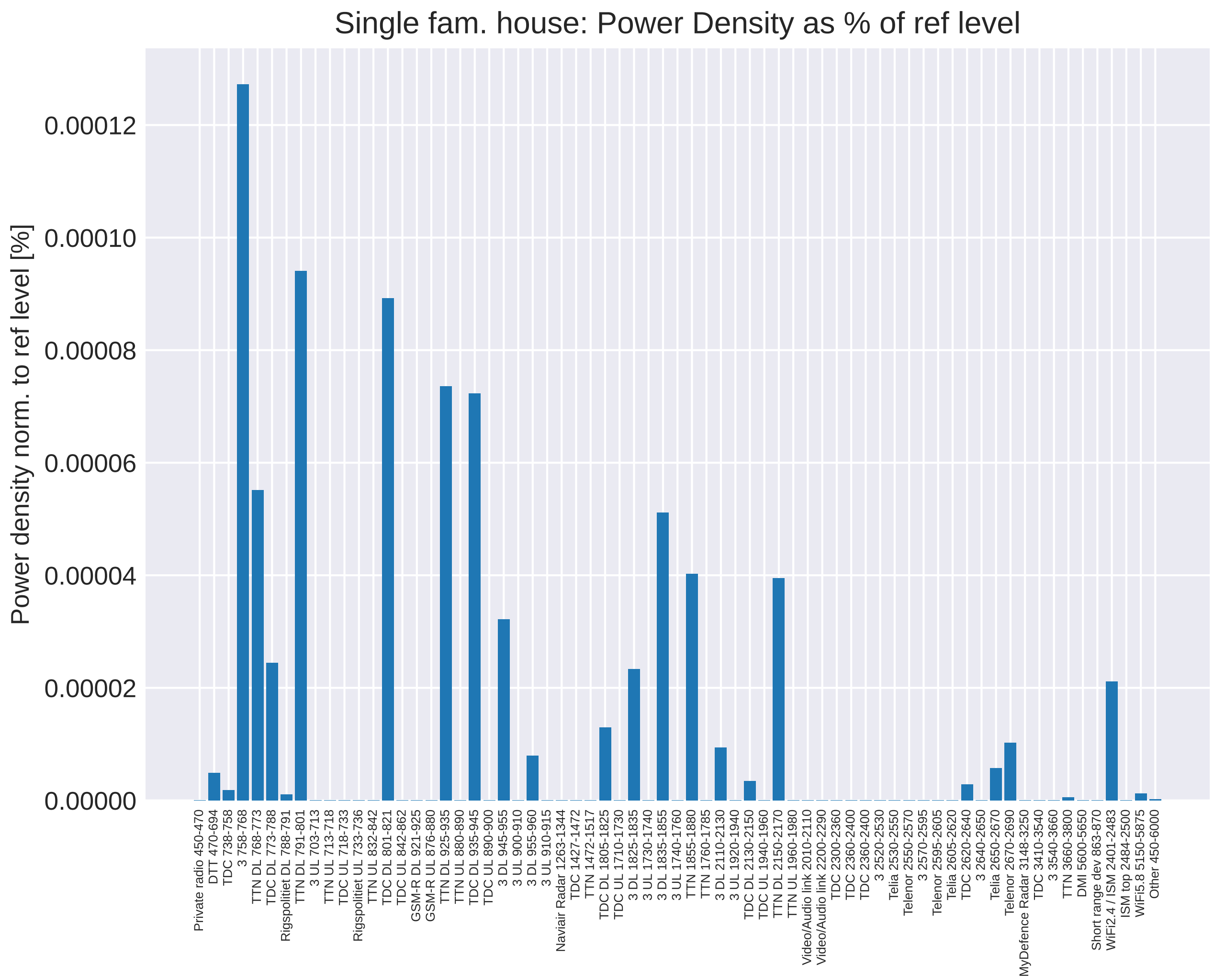

Office area: Power density
Power density [dBm/m²]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110

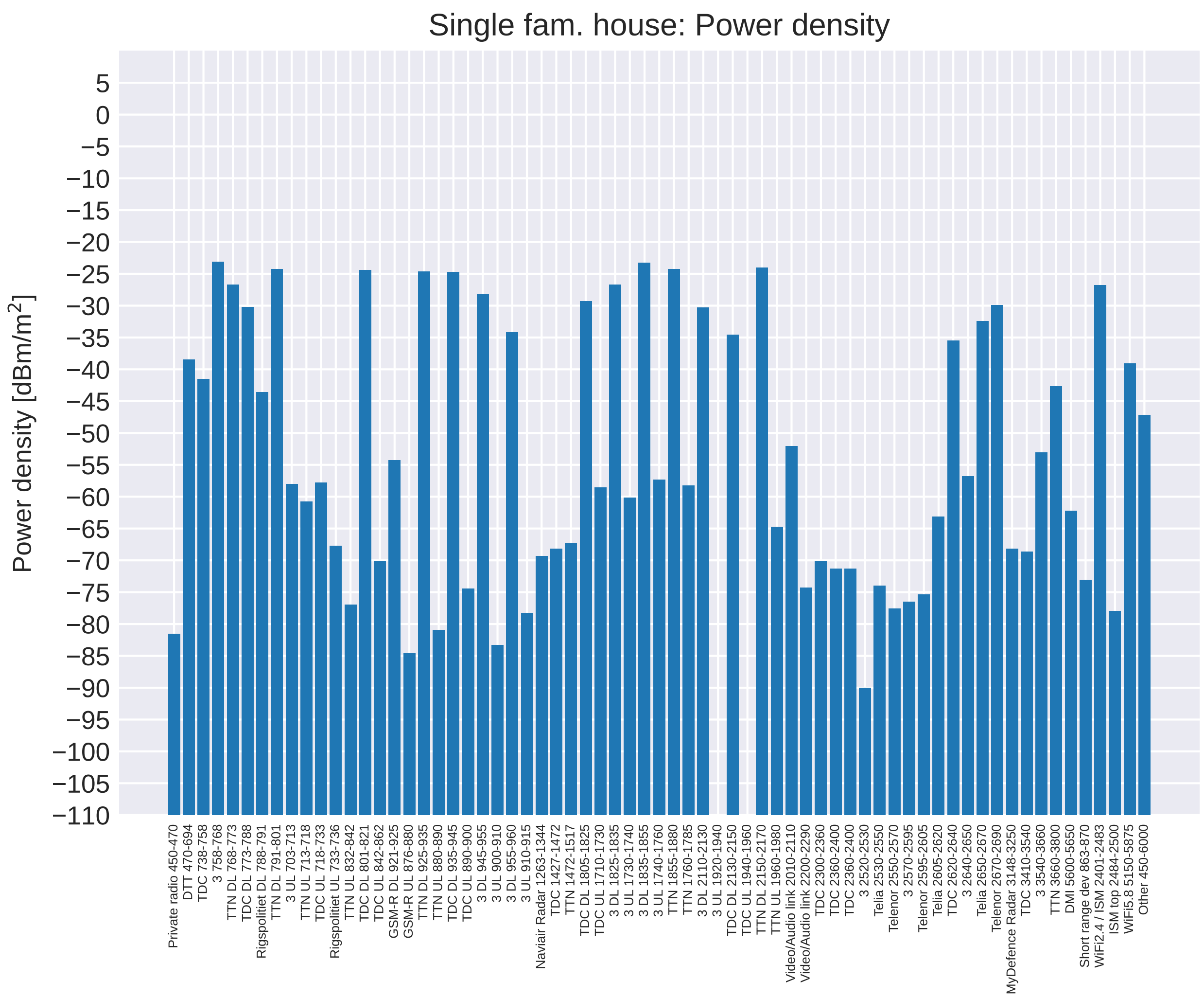

Bus station: Power Density as % of ref level
Power density norm. to ref level [%]

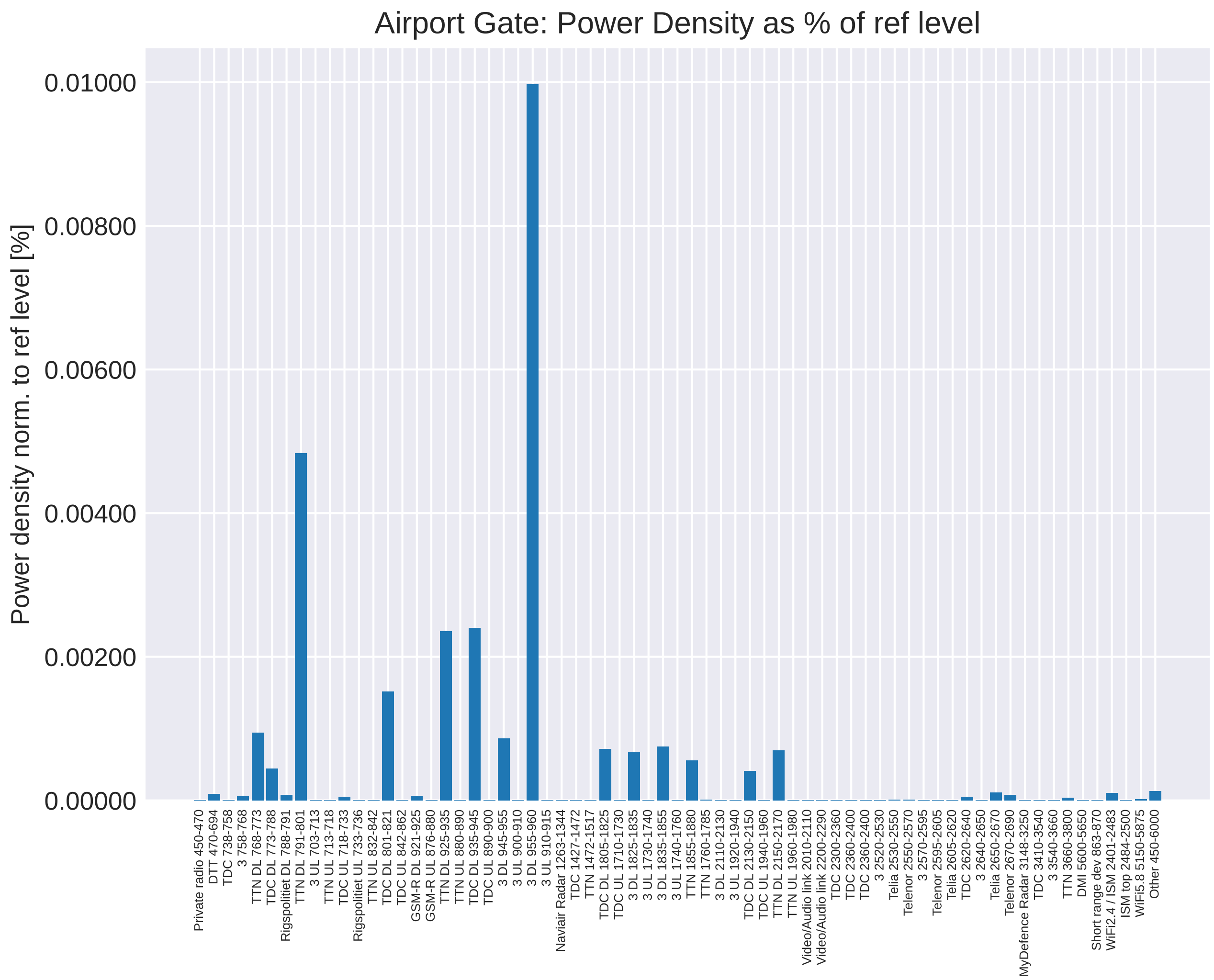

Bus station: Power density
Power density [dBm/m2]

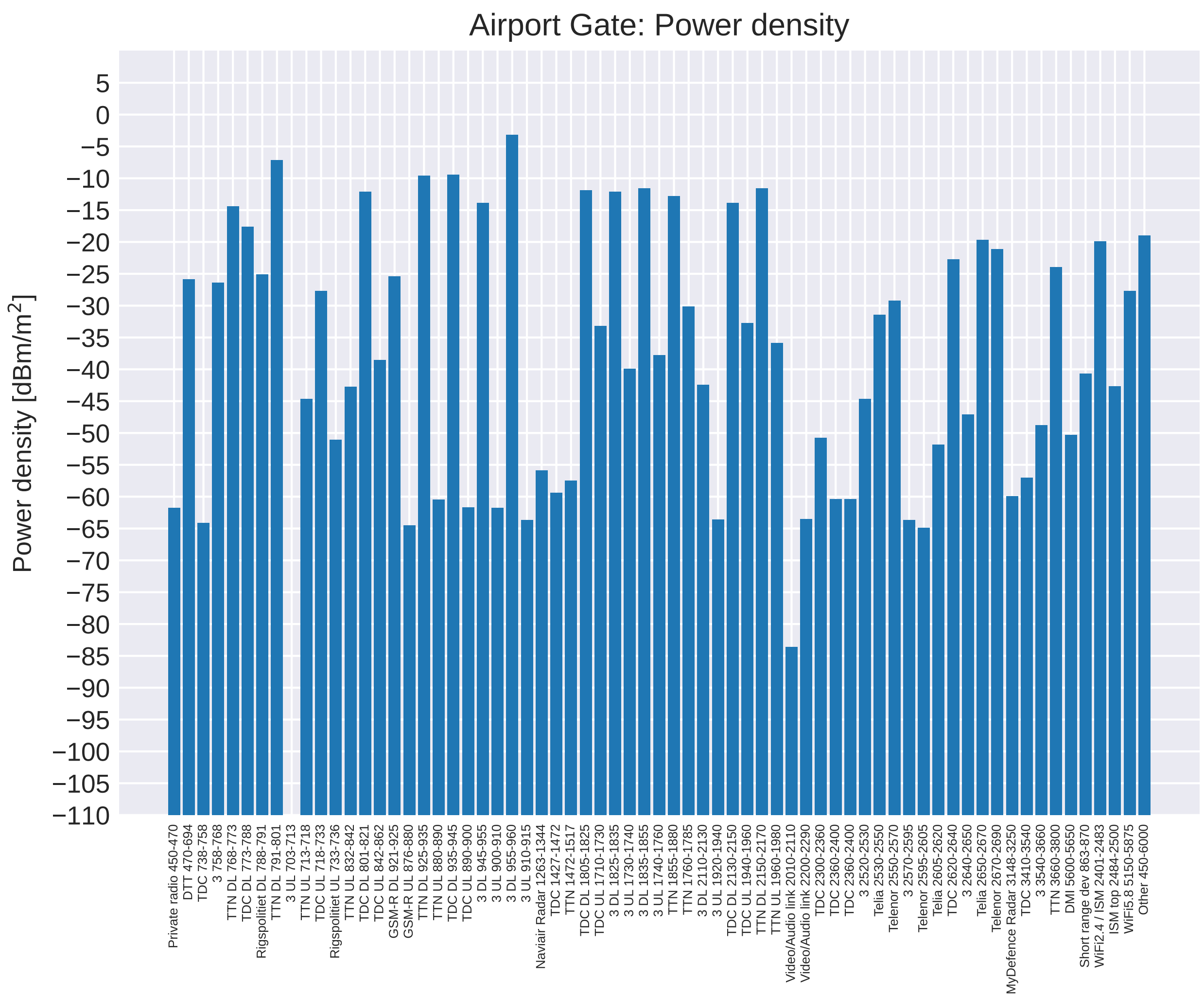

Train station: Power Density as % of ref level
Power density norm. to ref level [%]
0.00200
0.00150
0.00100
0.00050
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

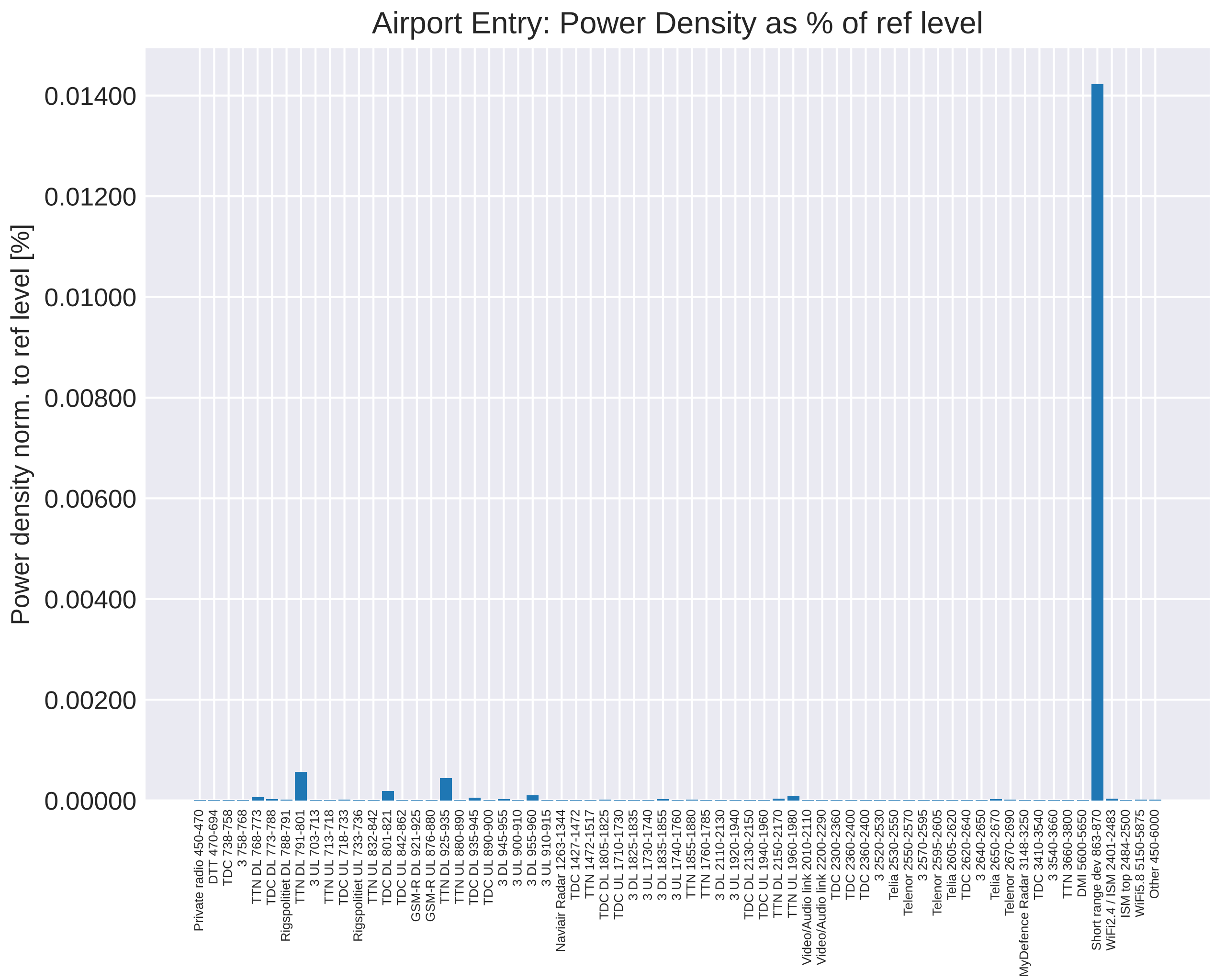

Train station: Power density
Power density [dBm/m^2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

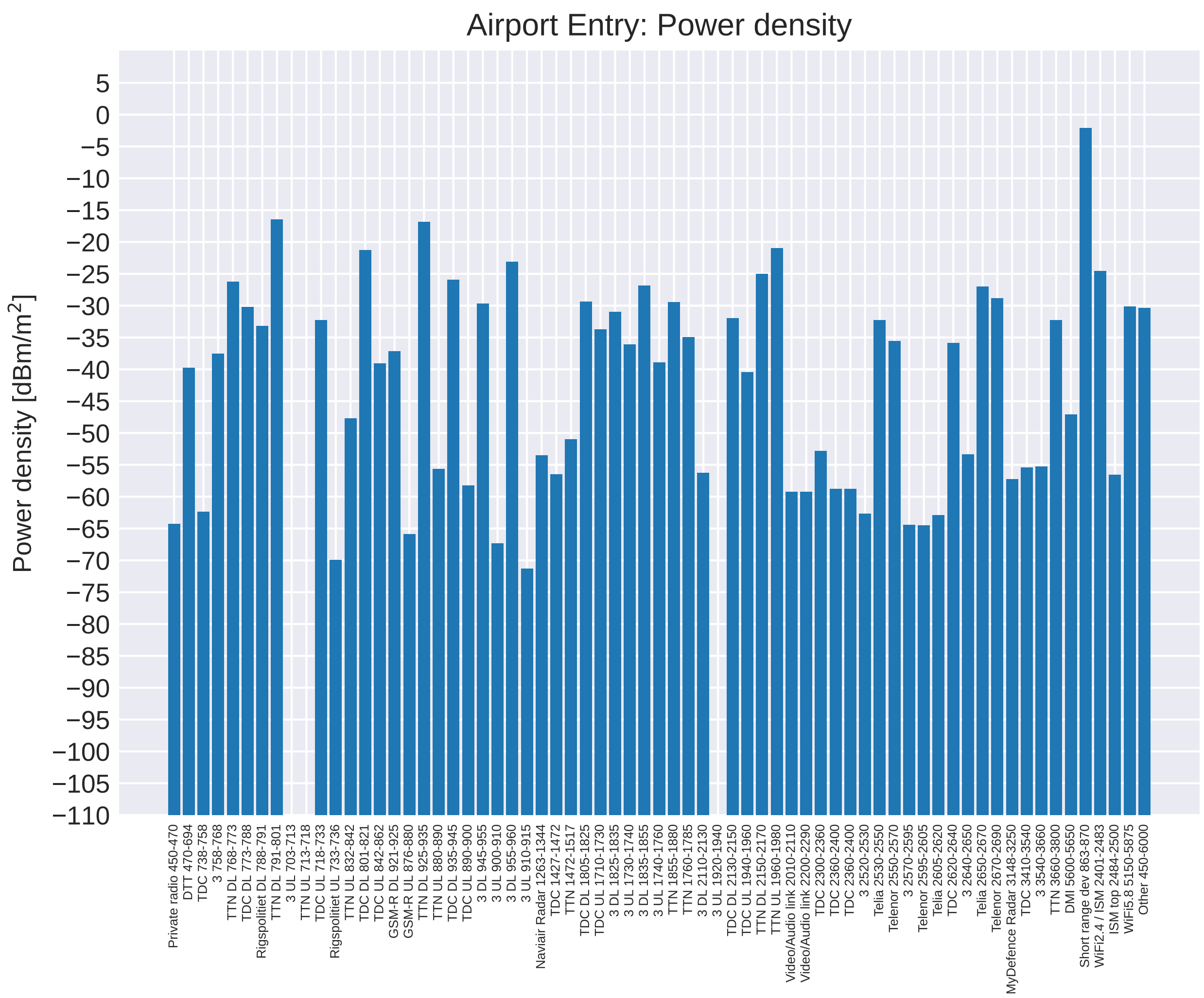

Single fam. house: Power Density as % of ref level
Power density norm. to ref level [%]

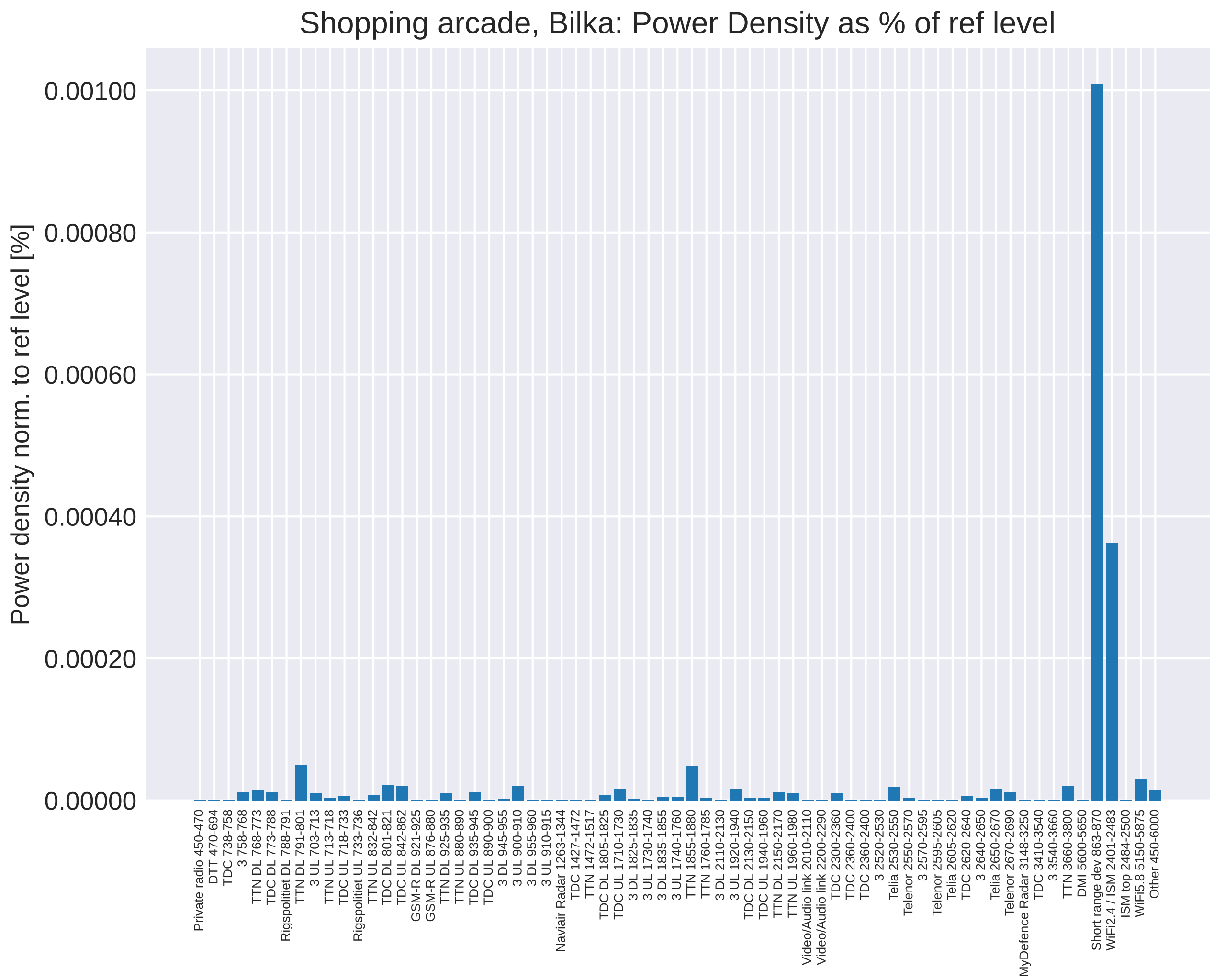

Single fam. house: Power density
Power density [dBm/m2]

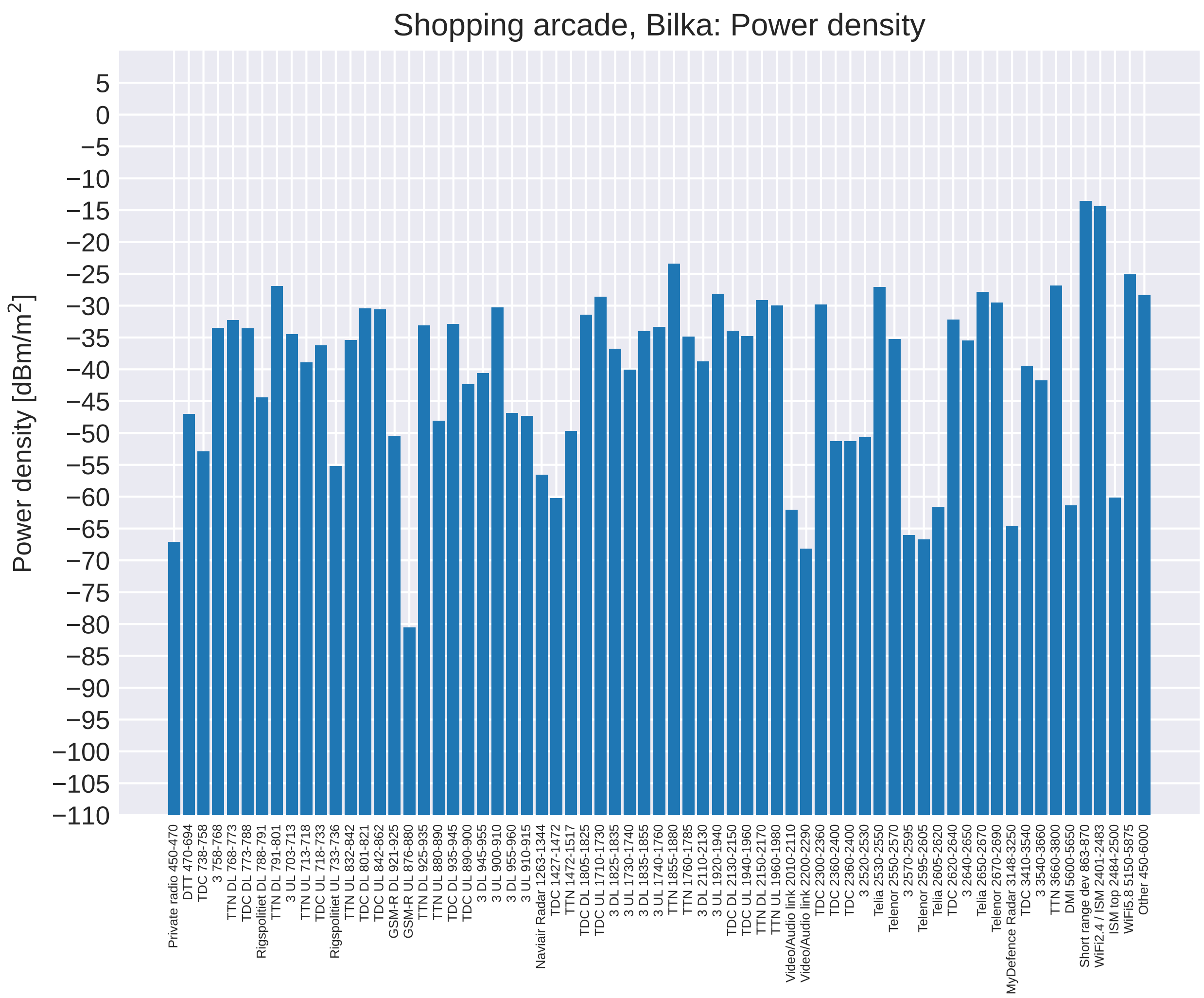

Airport Gate: Power Density as % of ref level
Power density norm. to ref level [%]
0.01000
0.00800
0.00600
0.00400
0.00200
0.00000

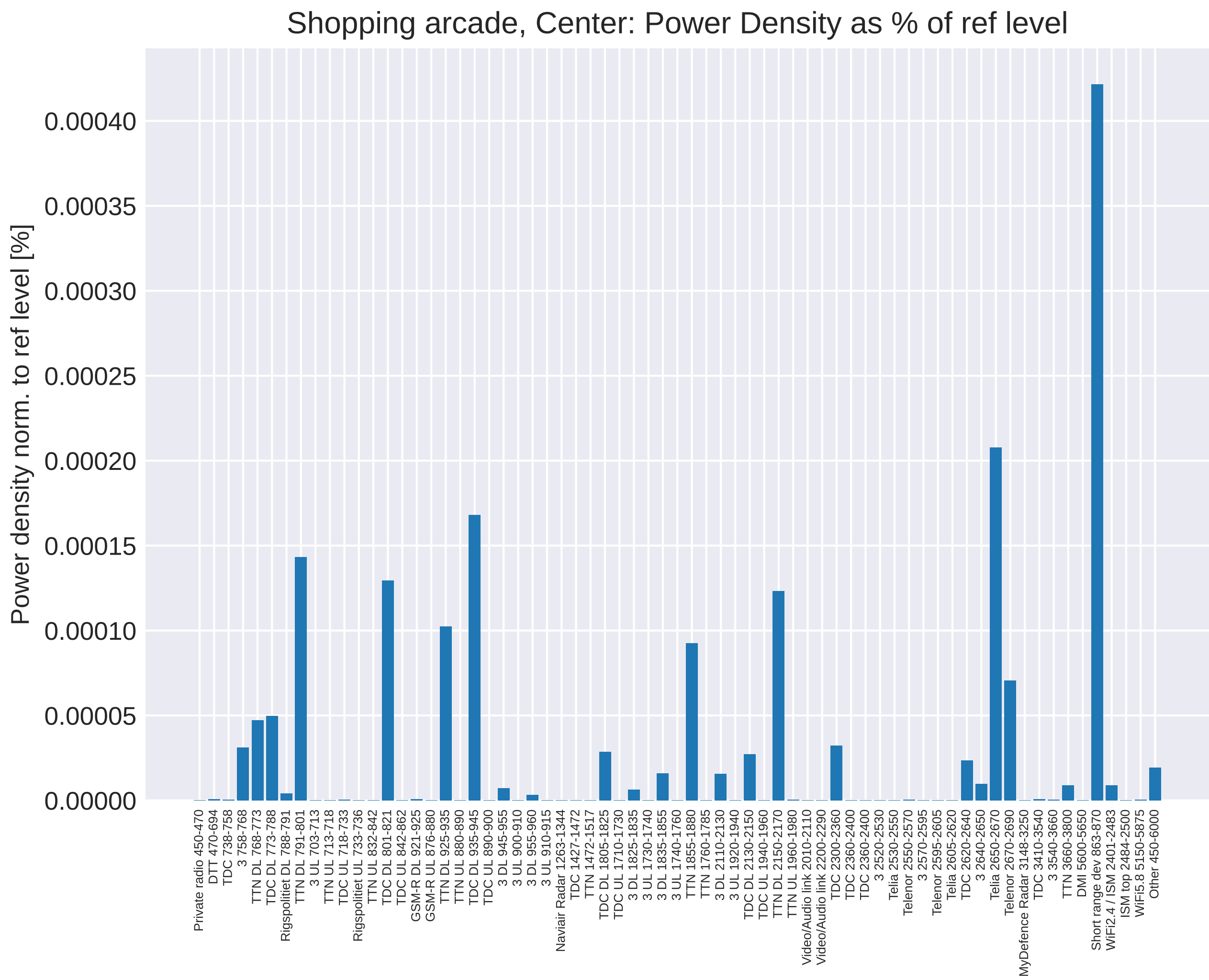

Airport Gate: Power density
Power density [dBm/m²]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110

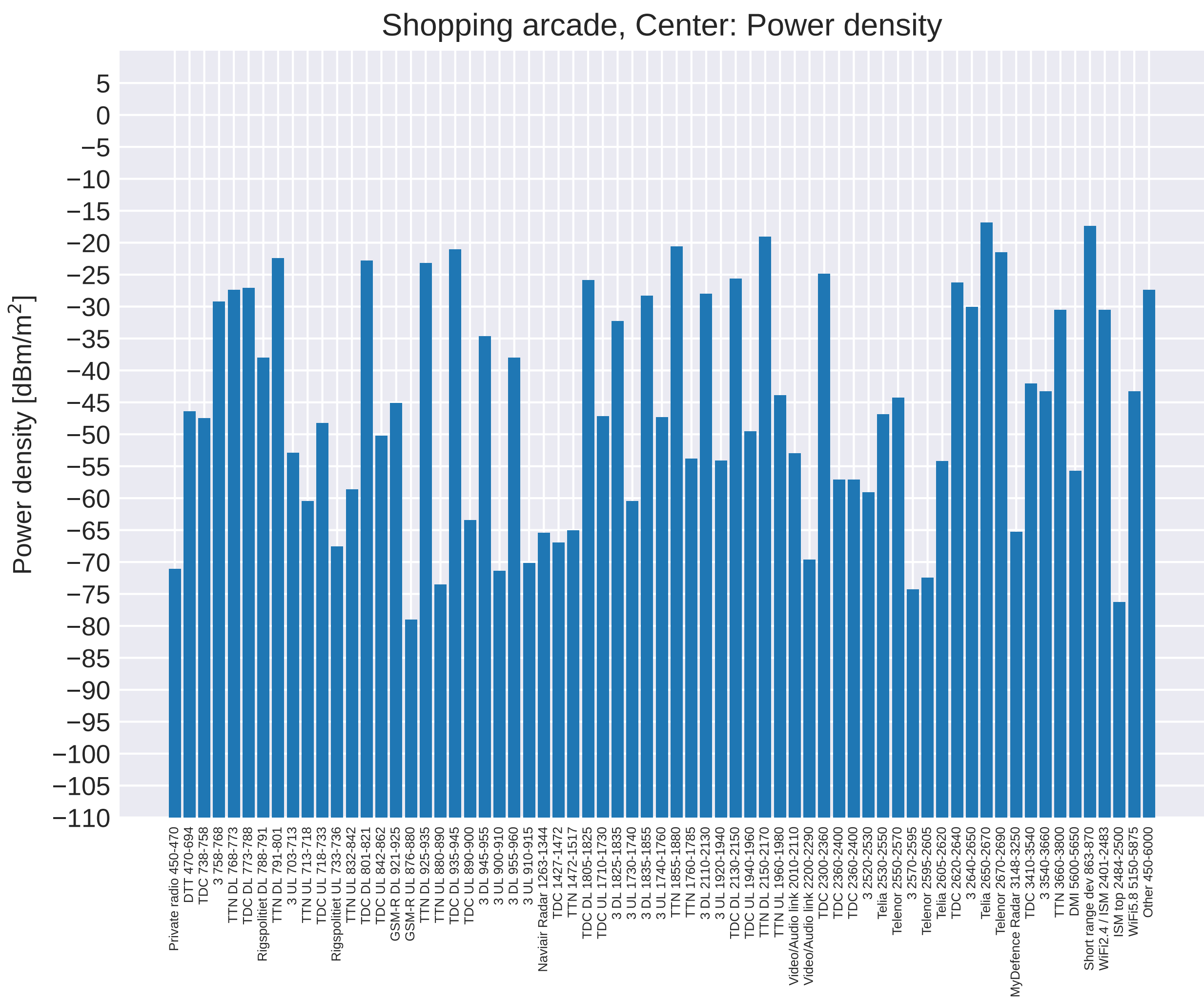

Airport Entry: Power Density as % of ref level
Power density norm. to ref level [%]

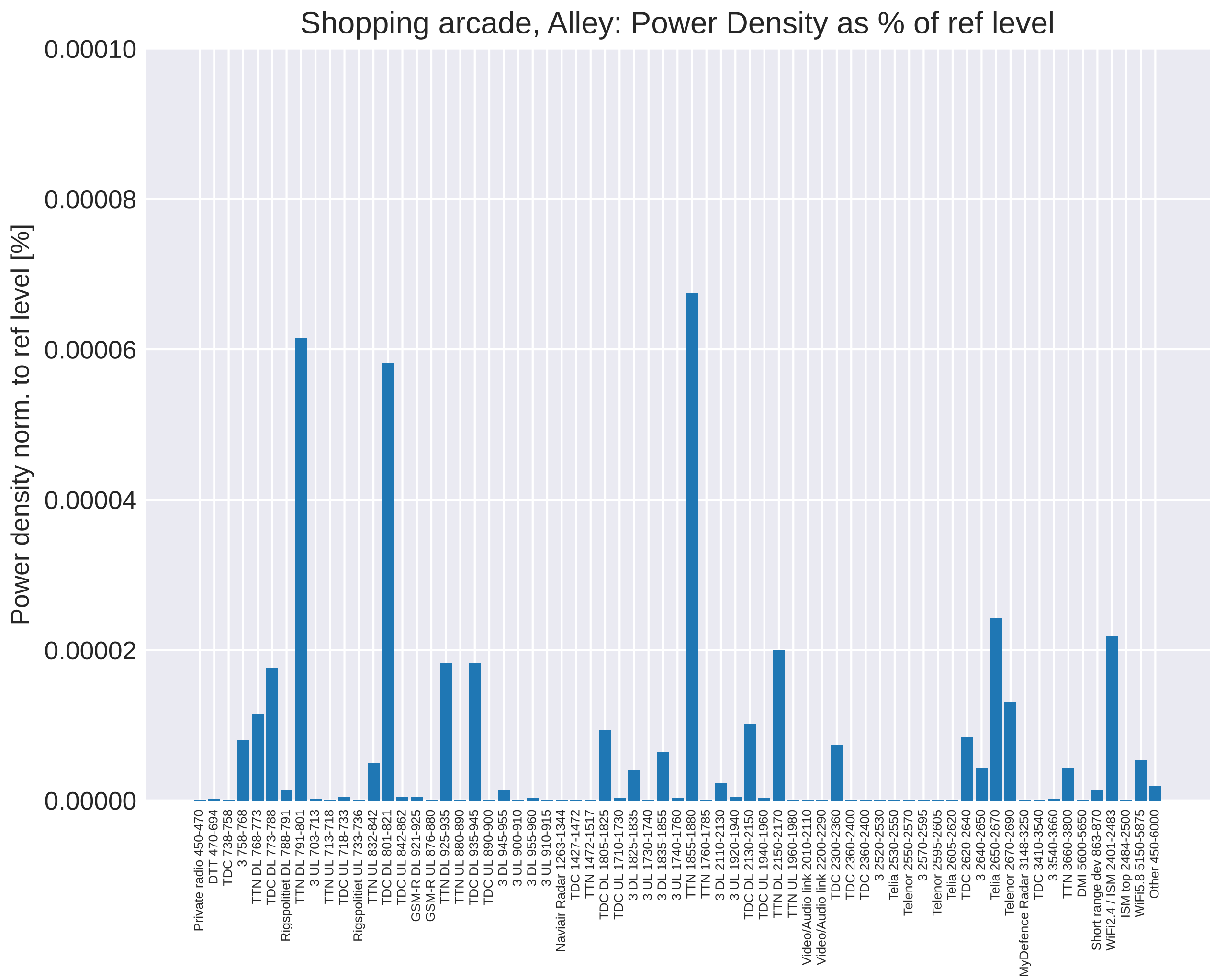

Airport Entry: Power density
Power density [dBm/m2]

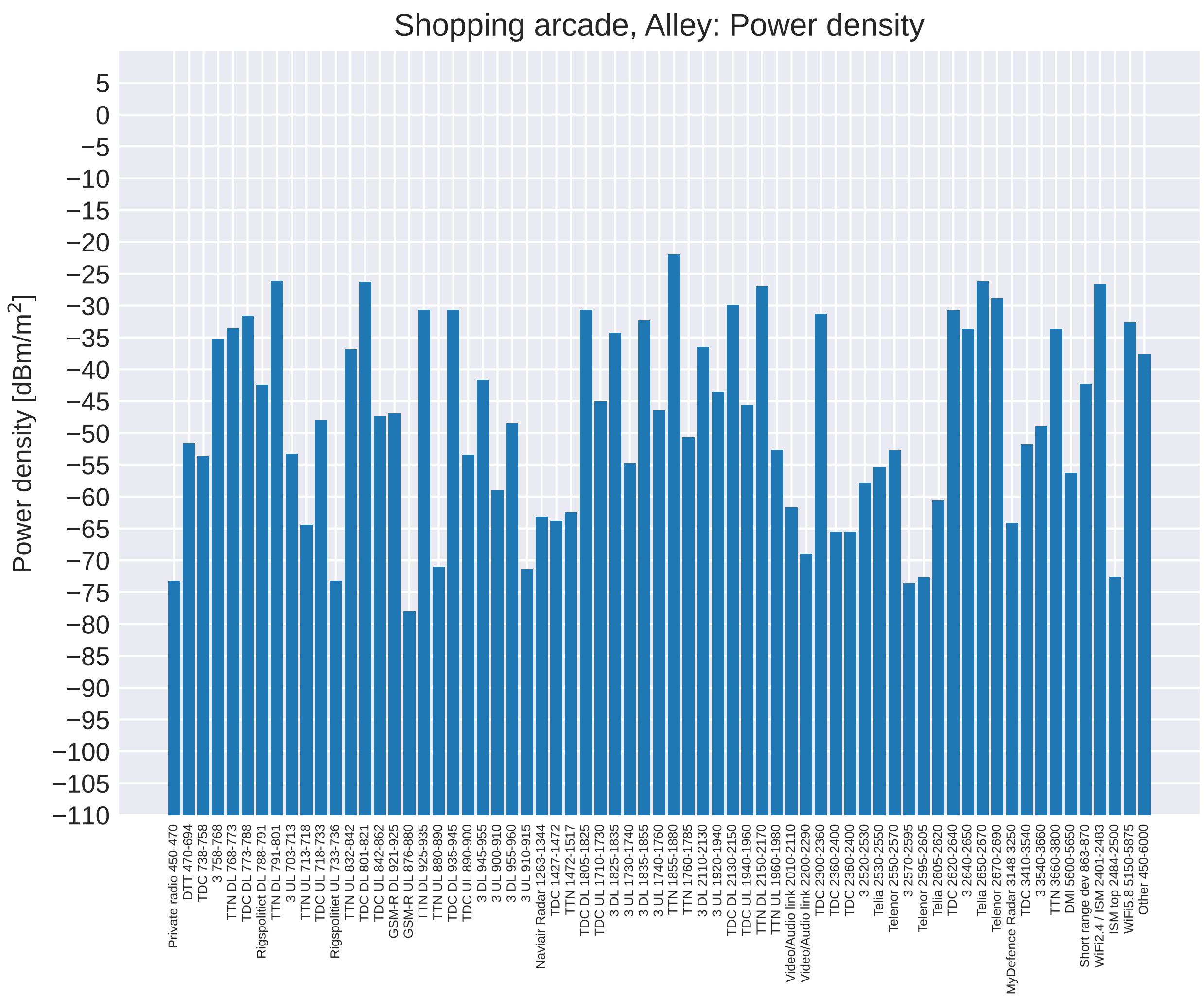

Shopping arcade, Bilka: Power Density as % of ref level
Power density norm. to ref level [%]

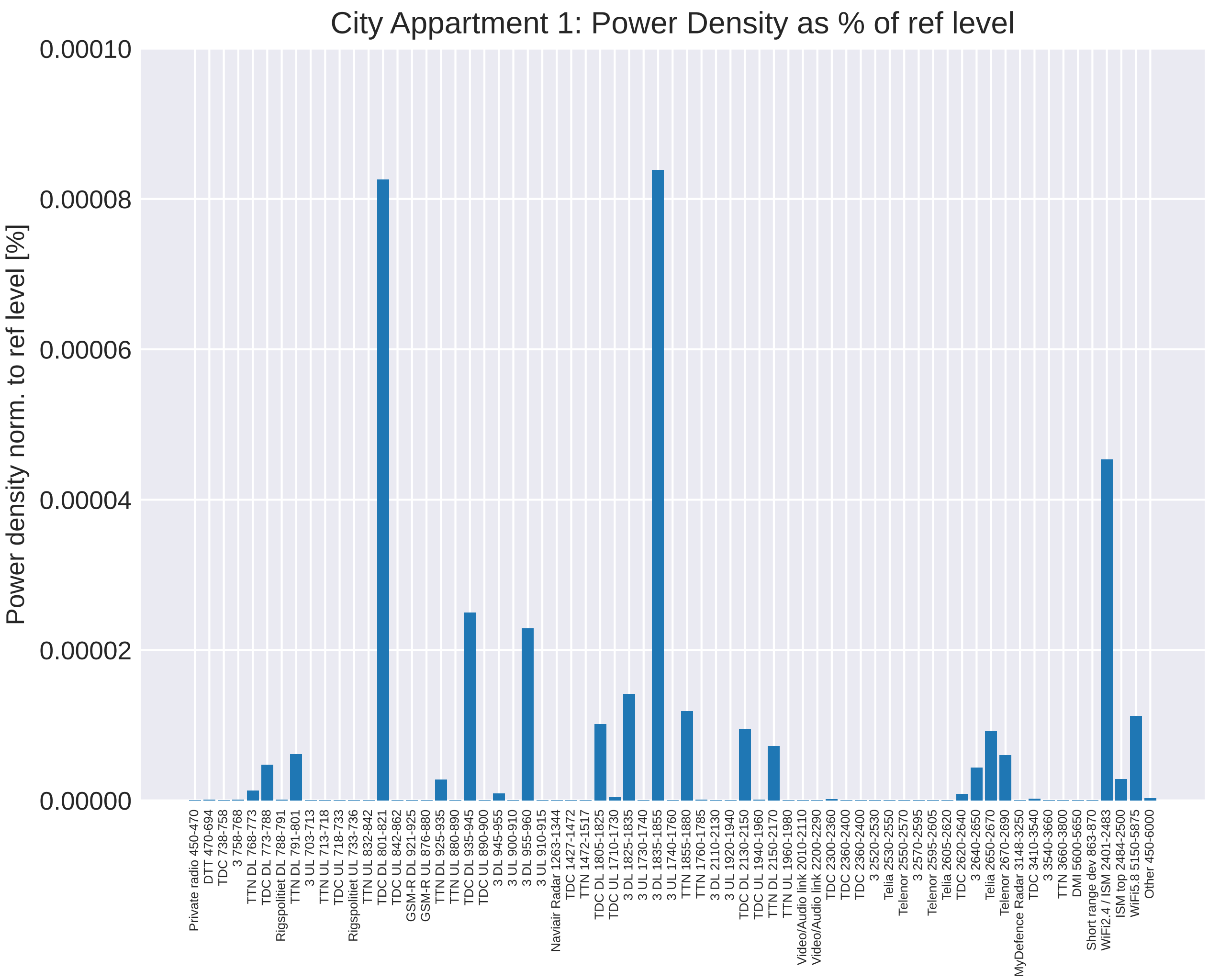

Shopping arcade, Bilka: Power density
Power density [dBm/m2]


Shopping arcade, Center: Power Density as % of ref level
Power density norm. to ref level [%]
0.00040
0.00035
0.00030
0.00025
0.00020
0.00015
0.00010
0.00005
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

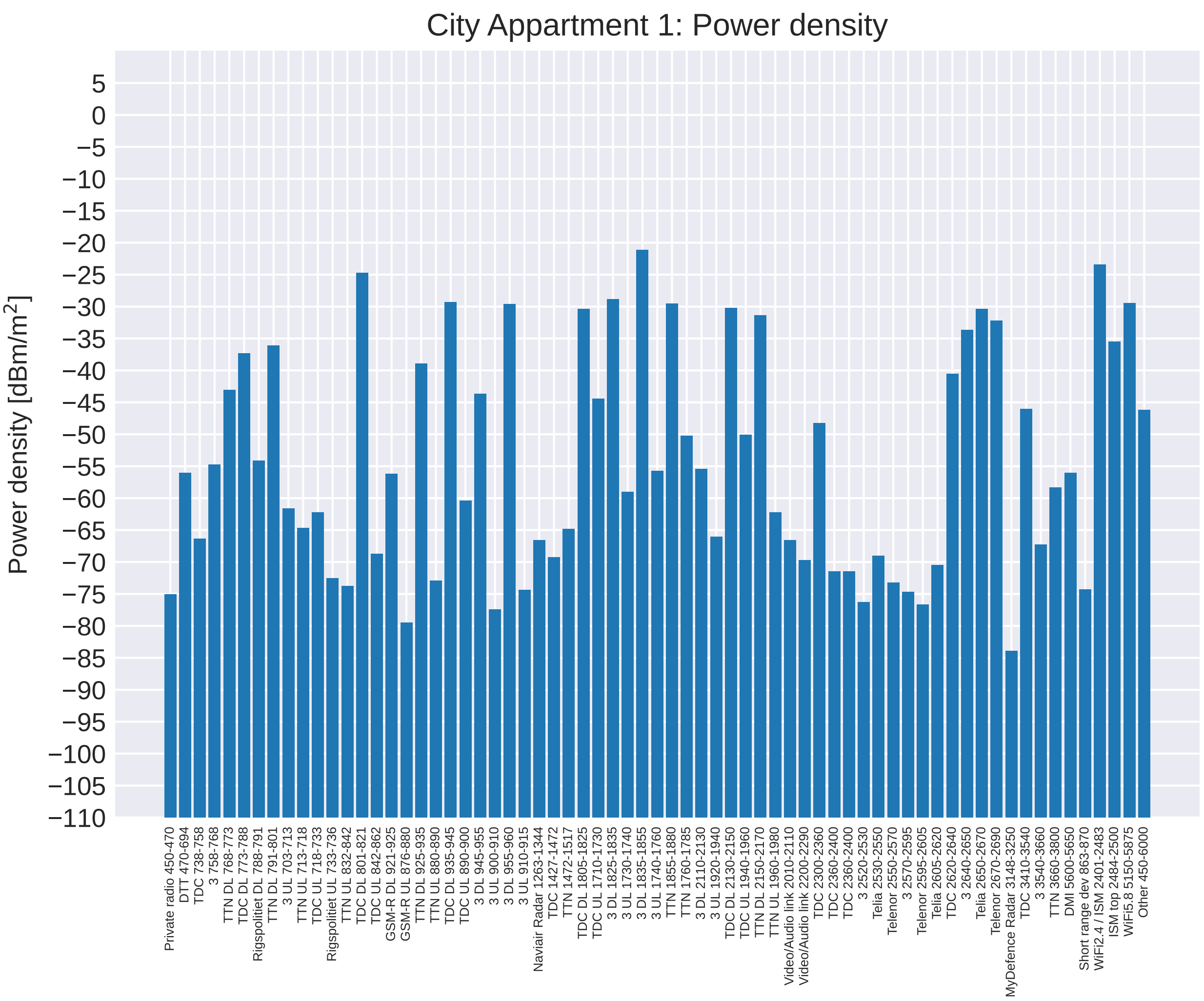

Shopping arcade, Center: Power density
Power density [dBm/m2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000


Shopping arcade, Alley: Power Density as % of ref level
Power density norm. to ref level [%]

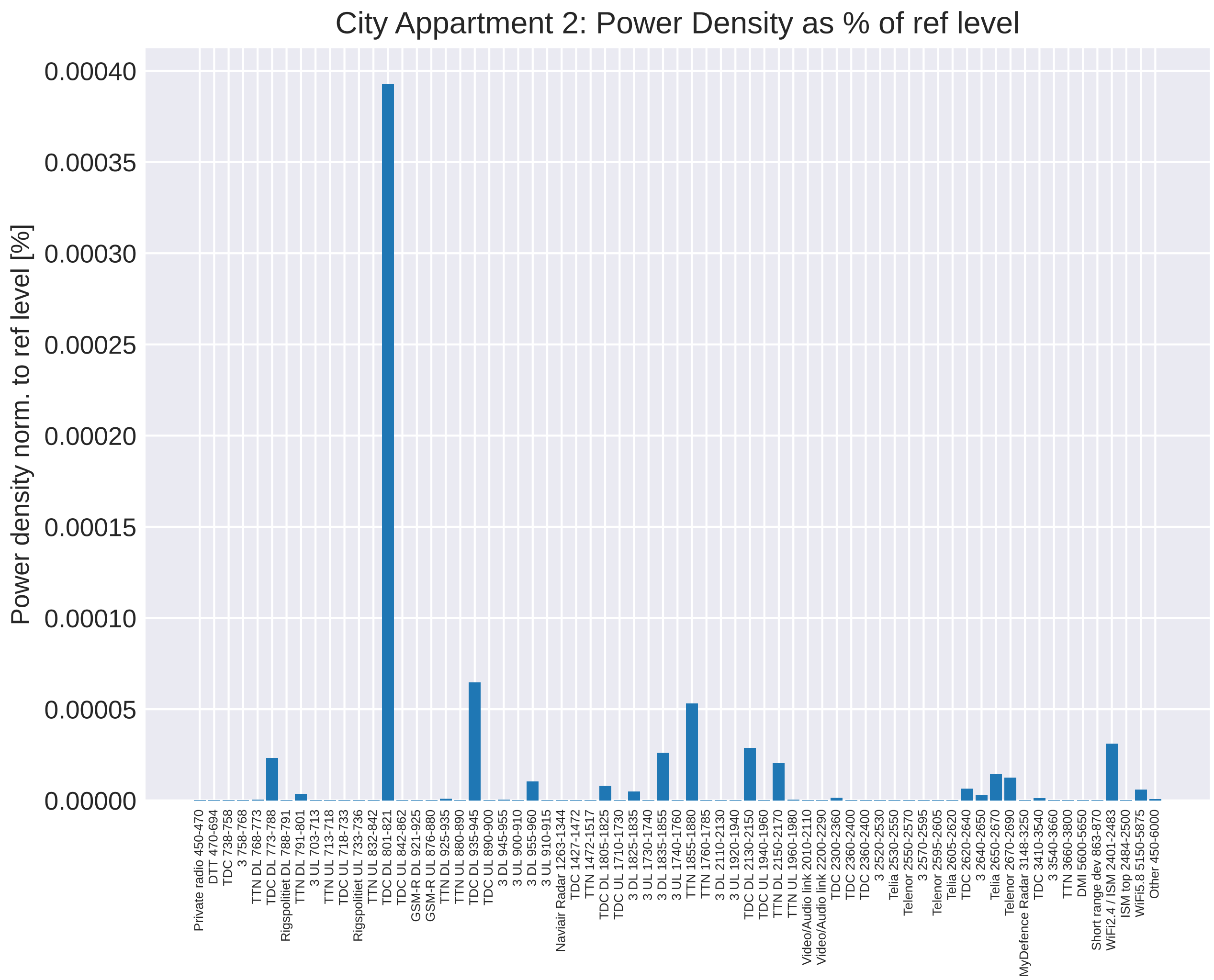

Shopping arcade, Alley: Power density
Power density [dBm/m²]



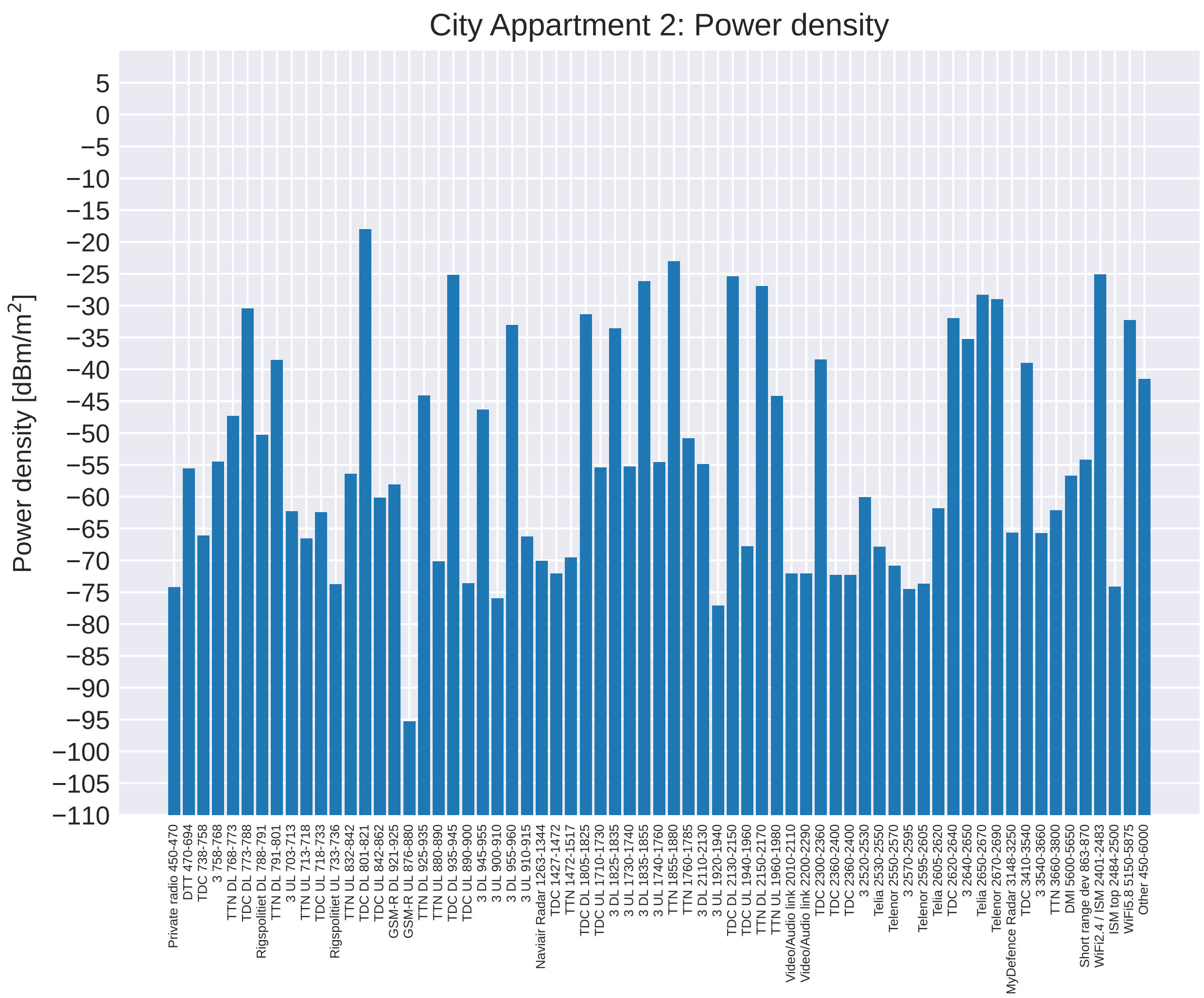
City Appartment 1: Power Density as % of ref level
Power density norm. to ref level [%]
0.00010
0.00008
0.00006
0.00004
0.00002
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000



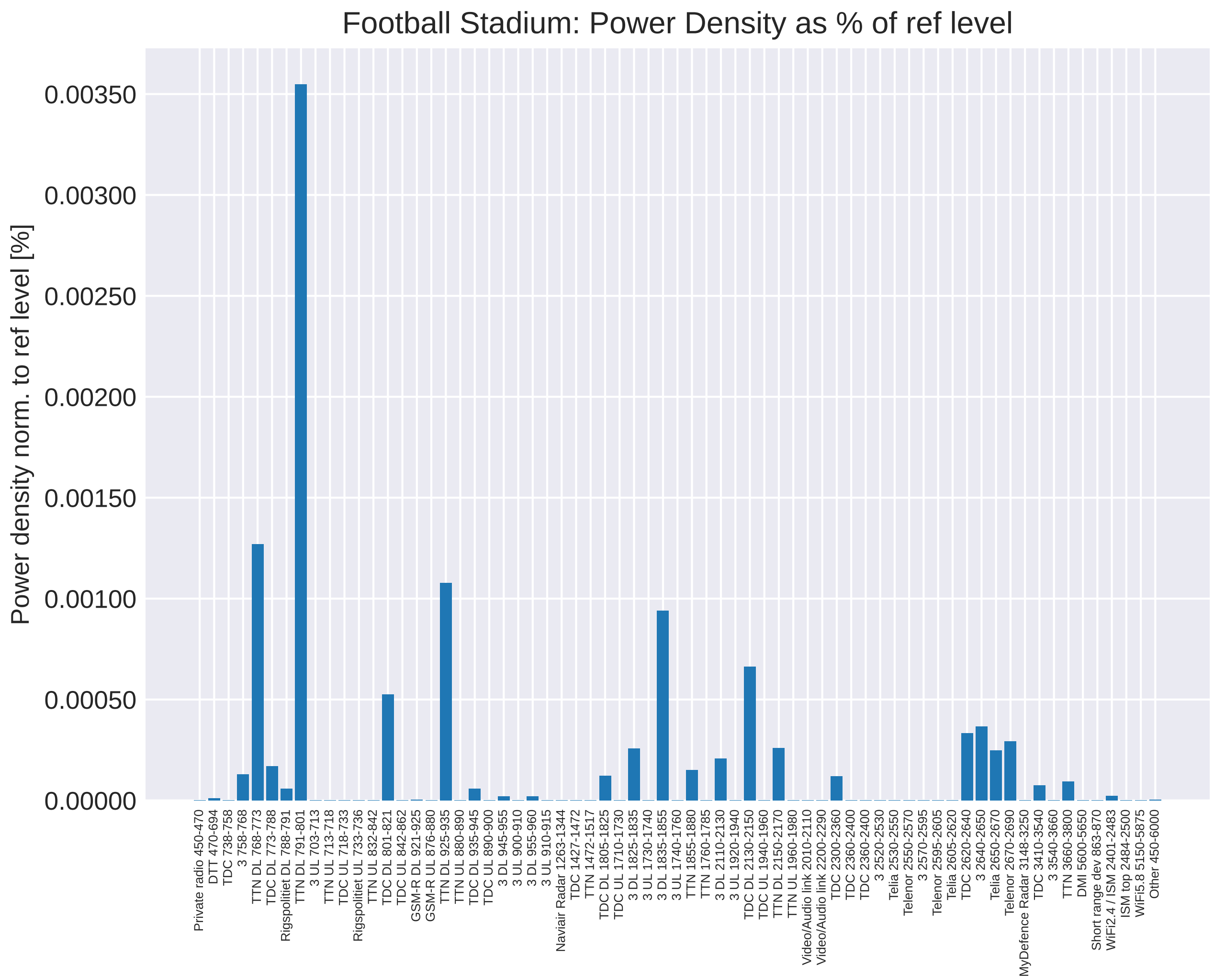
City Appartment 1: Power density
Power density [dBm/m^2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

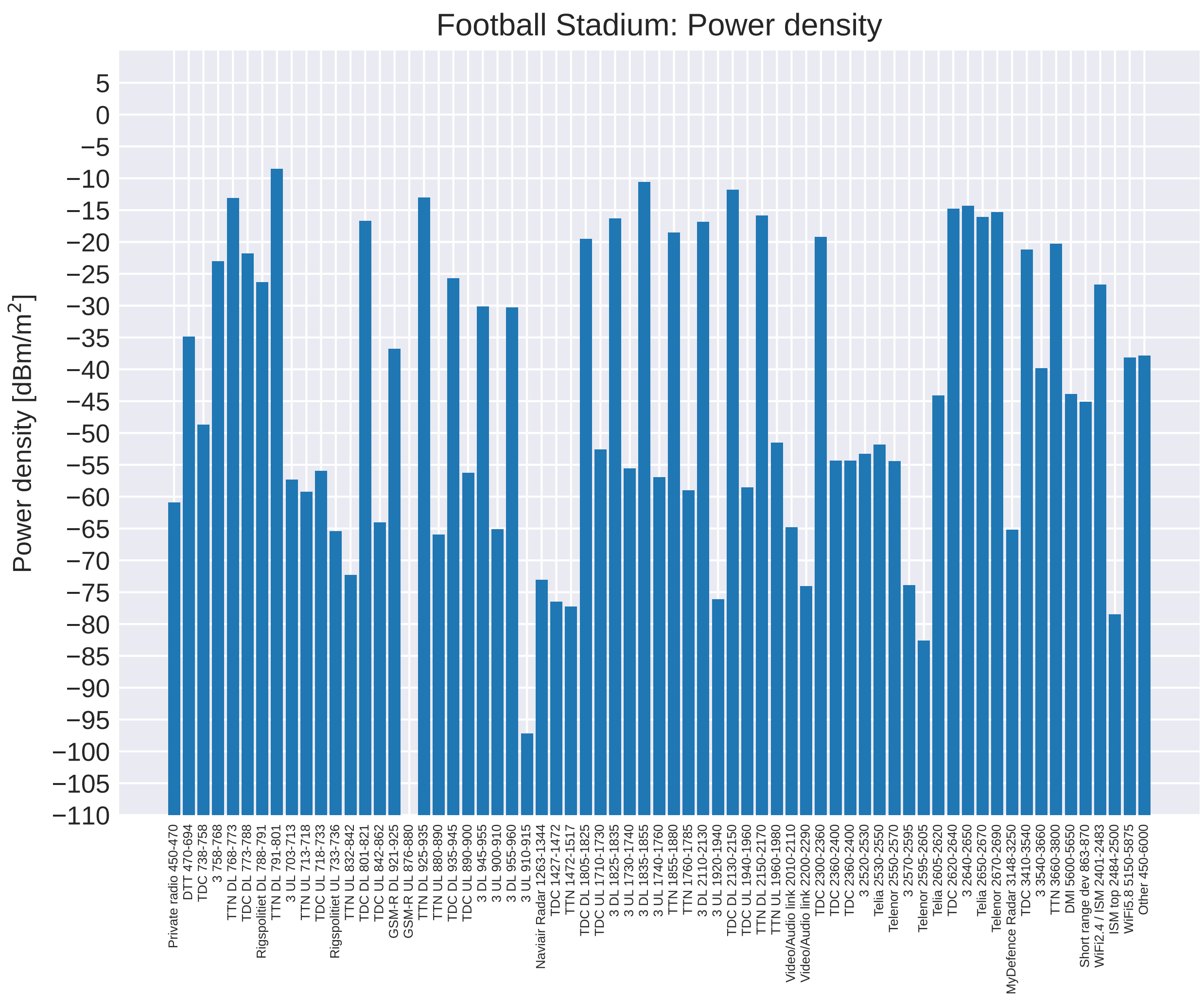


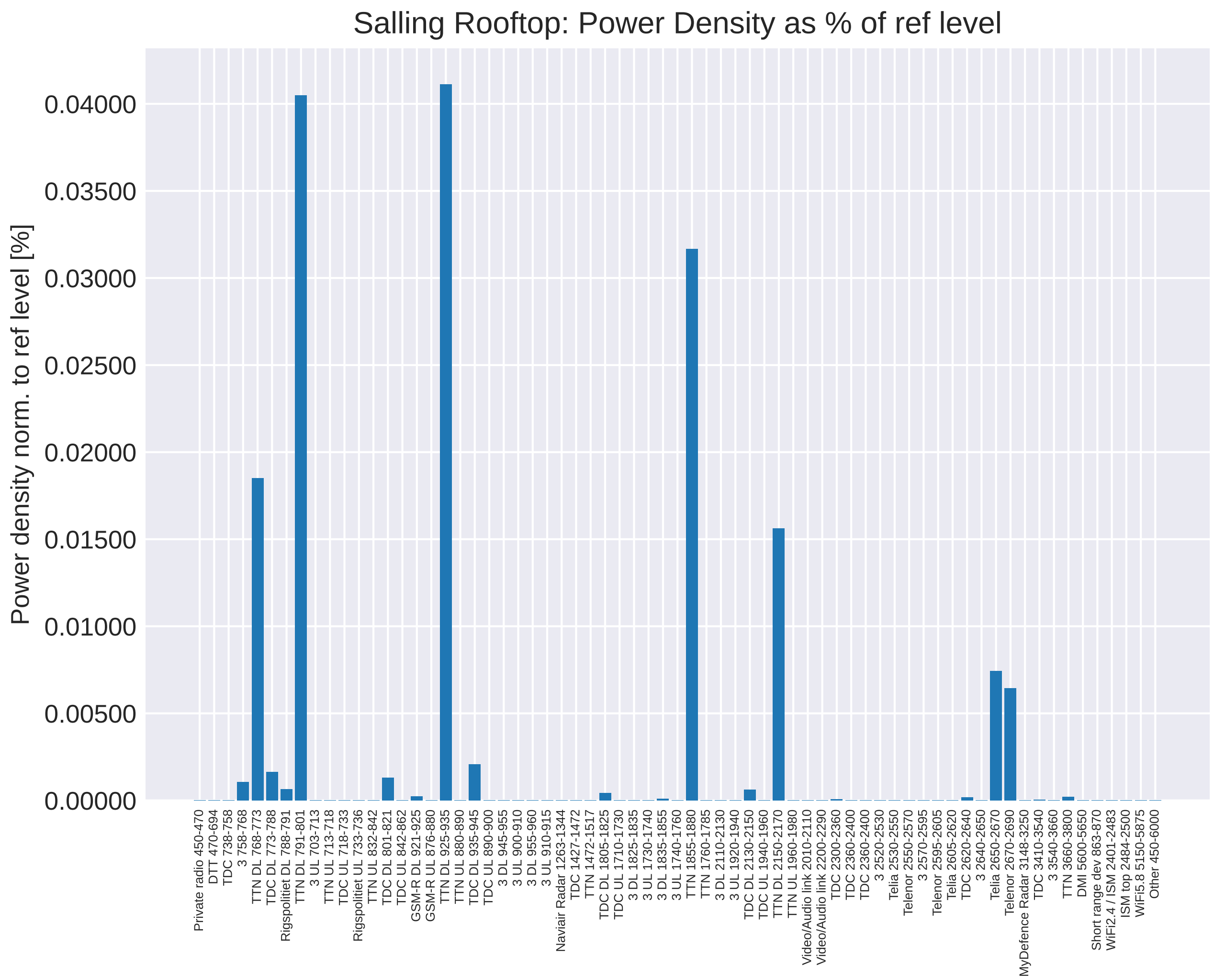
City Appartment 2: Power Density as % of ref level
Power density norm. to ref level [%]

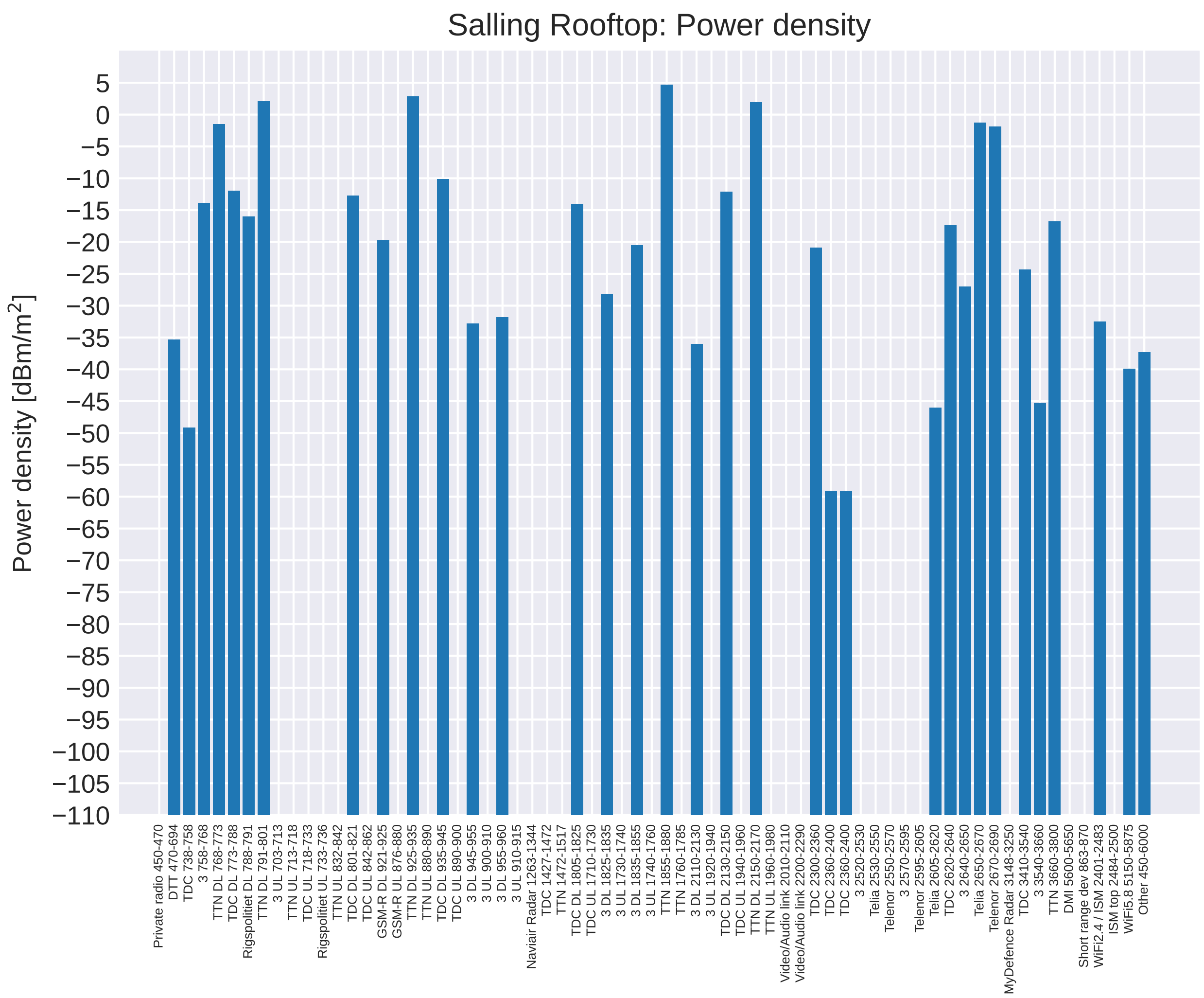


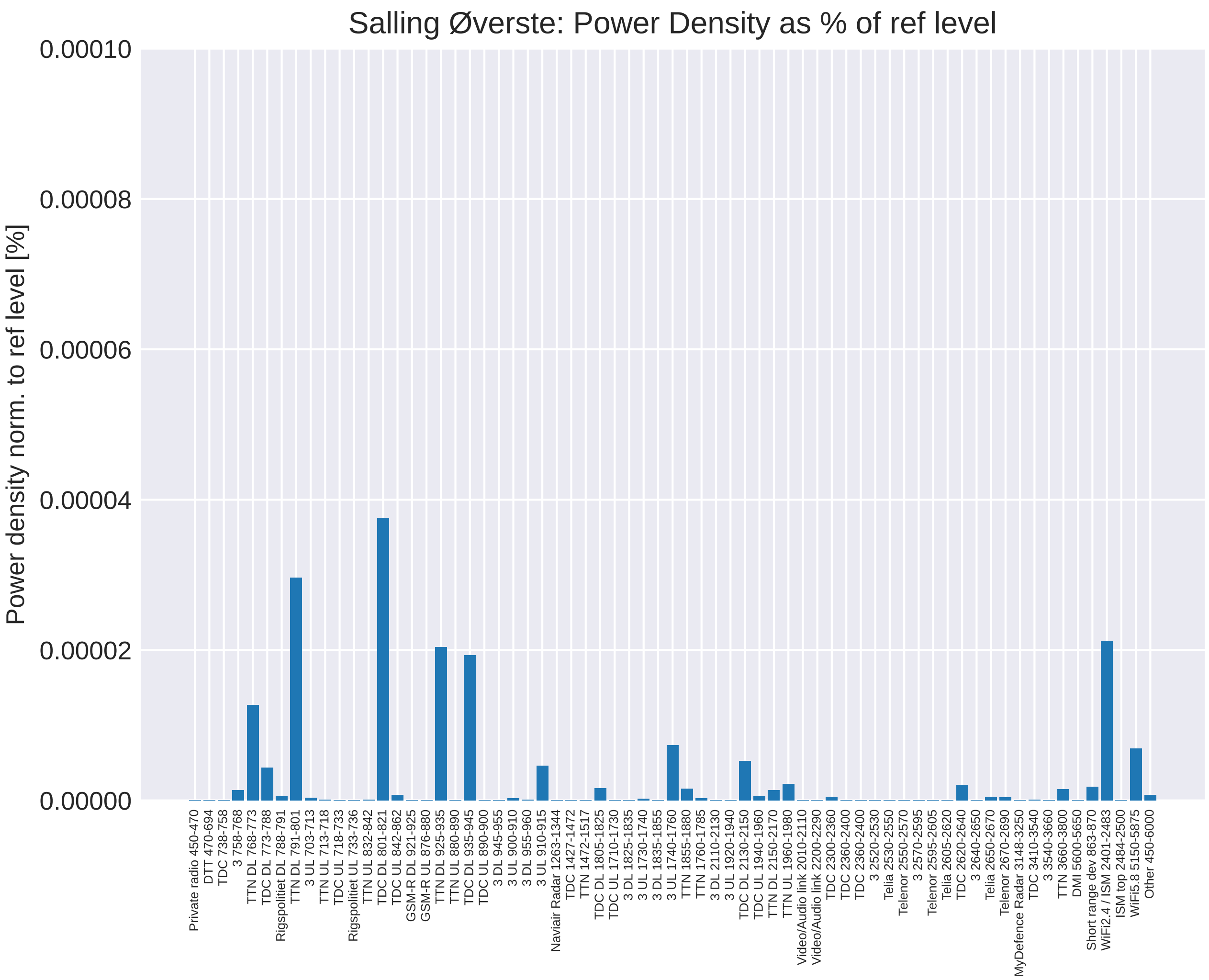
City Appartment 2: Power density
Power density [dBm/m2]

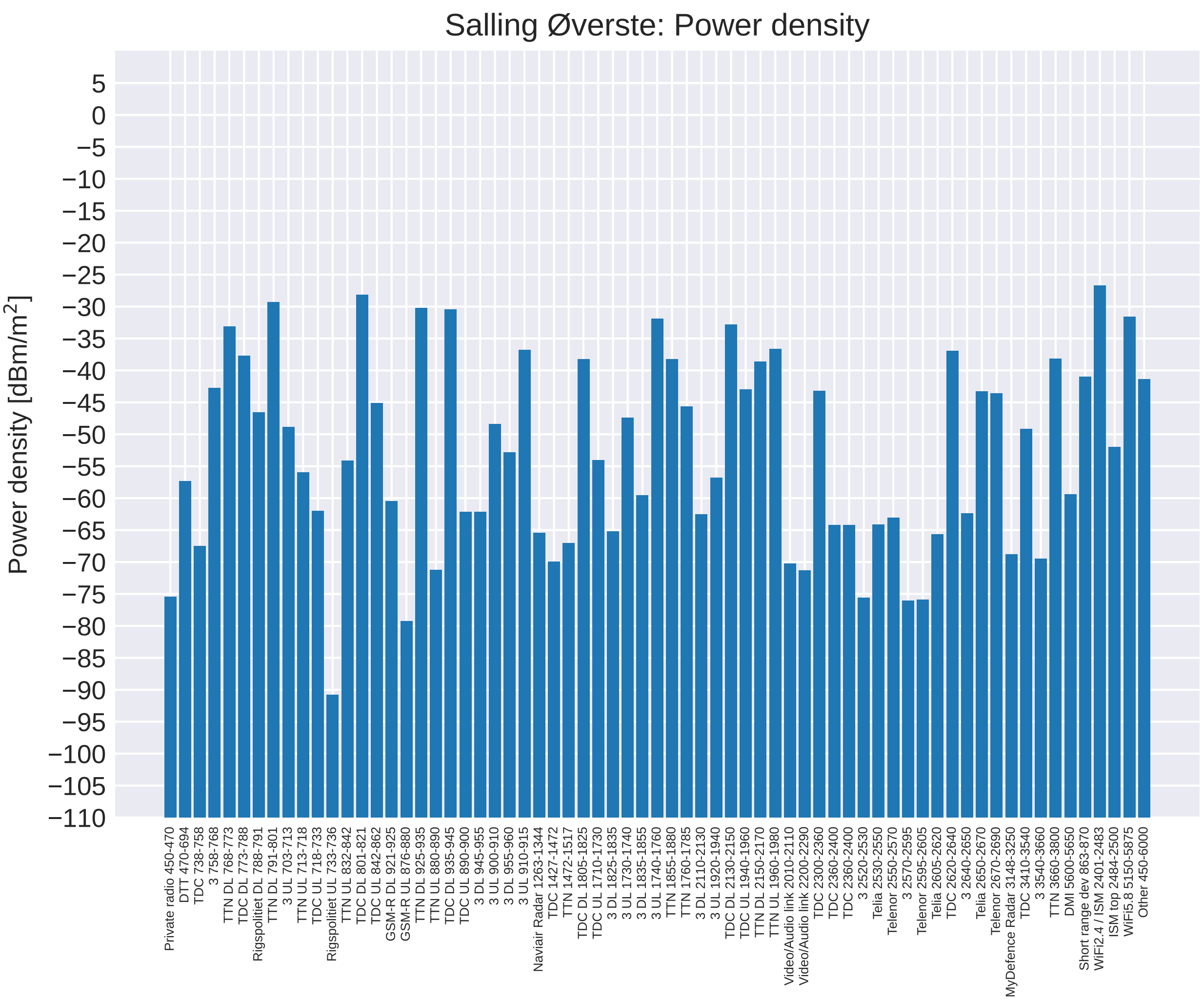

Football Stadium: Power Density as % of ref level
Power density norm. to ref level [%]
0.00350
0.00300
0.00250
0.00200
0.00150
0.00100
0.00050
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

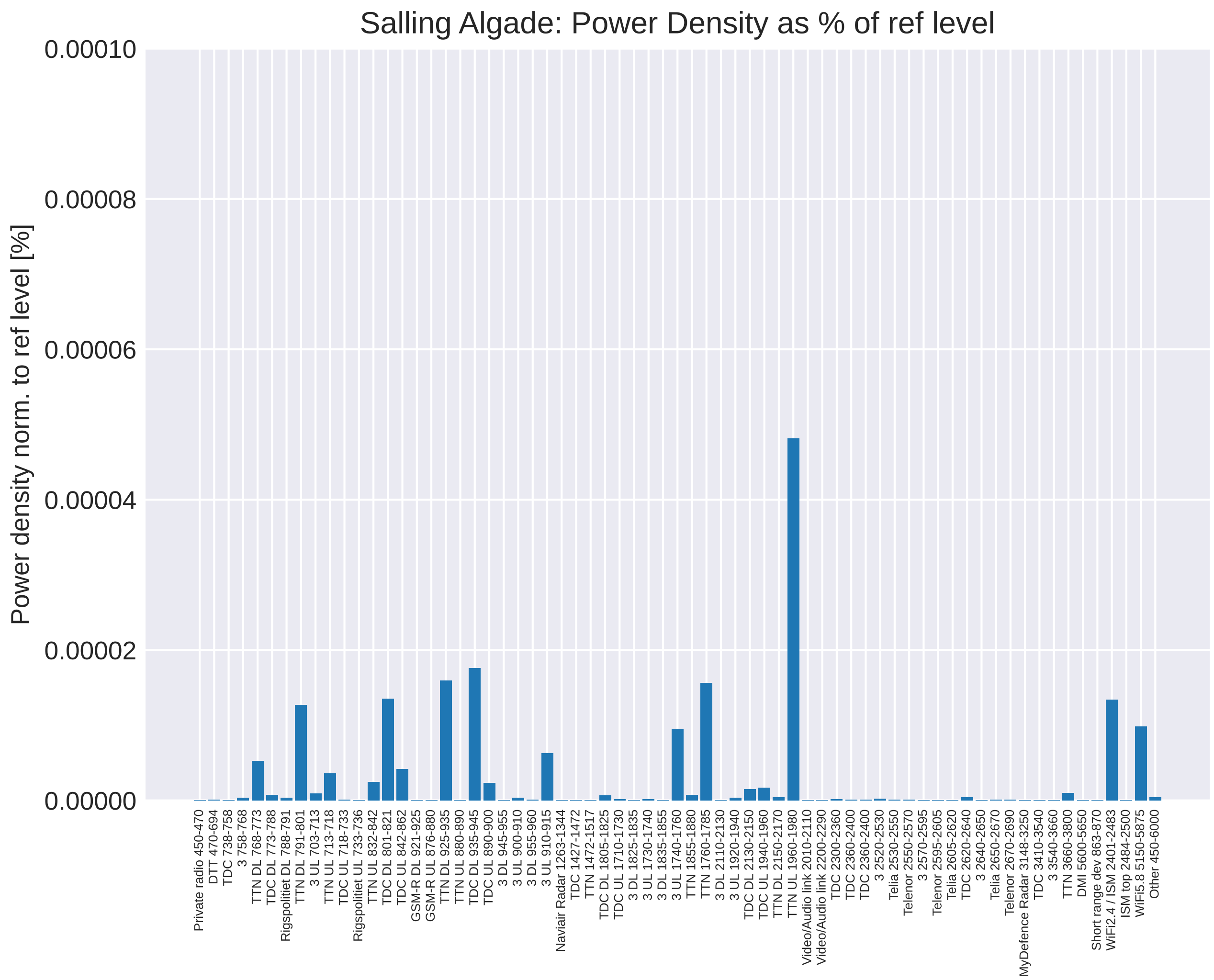

Football Stadium: Power density
Power density [dBm/m^2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000


Salling Rooftop: Power Density as % of ref level
Power density norm. to ref level [%]

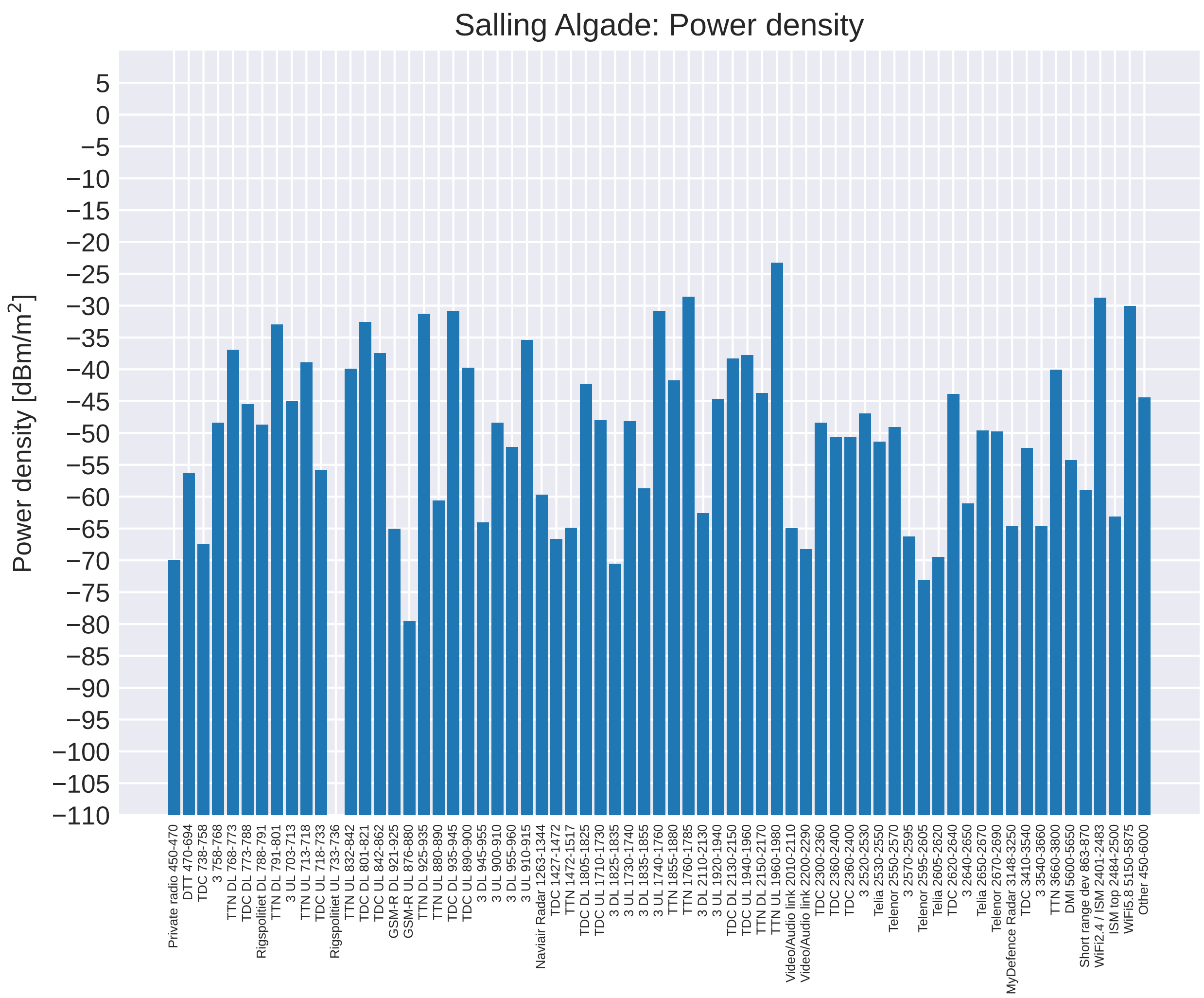

Salling Rooftop: Power density
Power density [dBm/m2]


Salling Øverste: Power Density as % of ref level
Power density norm. to ref level [%]
0.00010
0.00008
0.00006
0.00004
0.00002
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

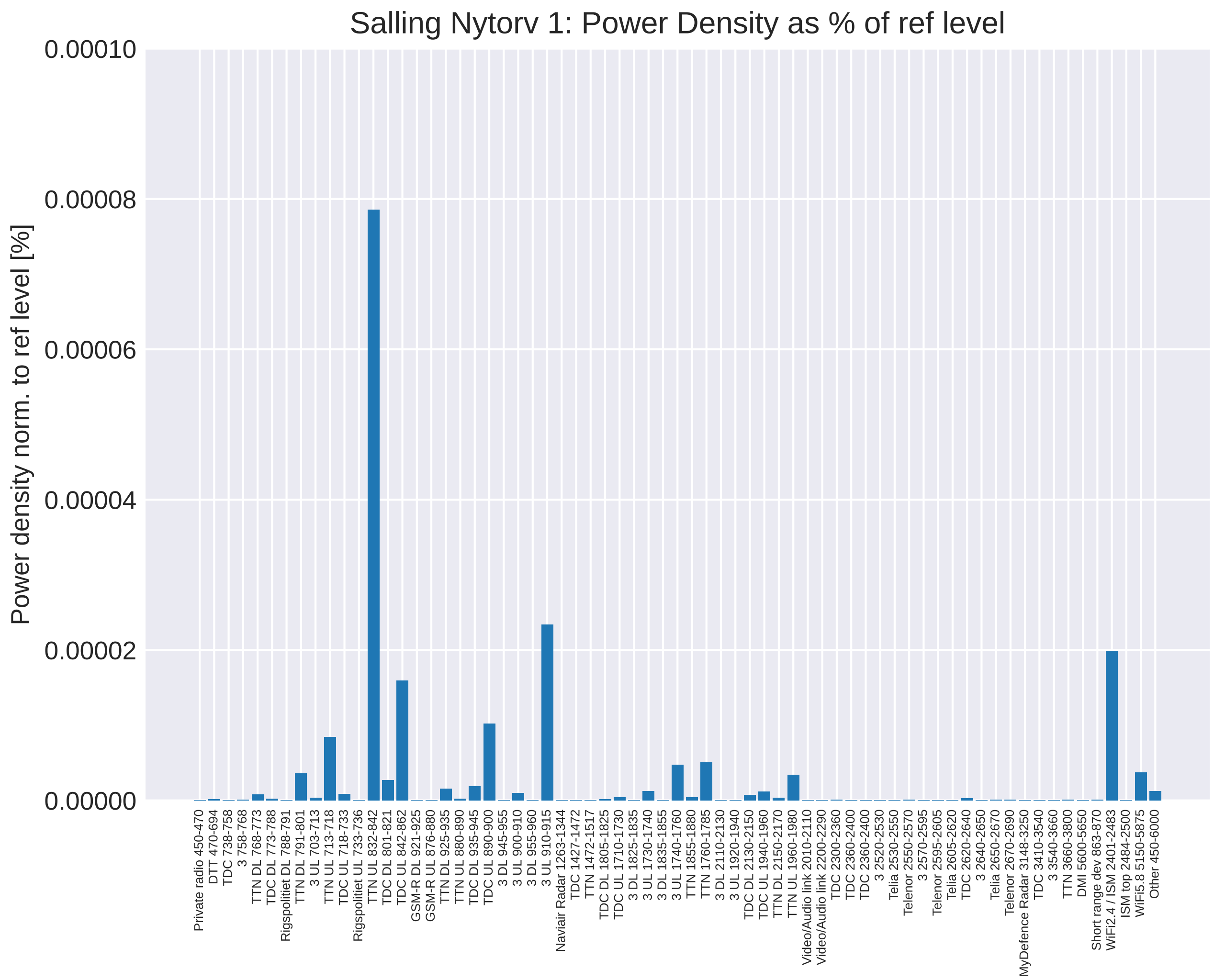

Salling Øverste: Power density
Power density [dBm/m2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000



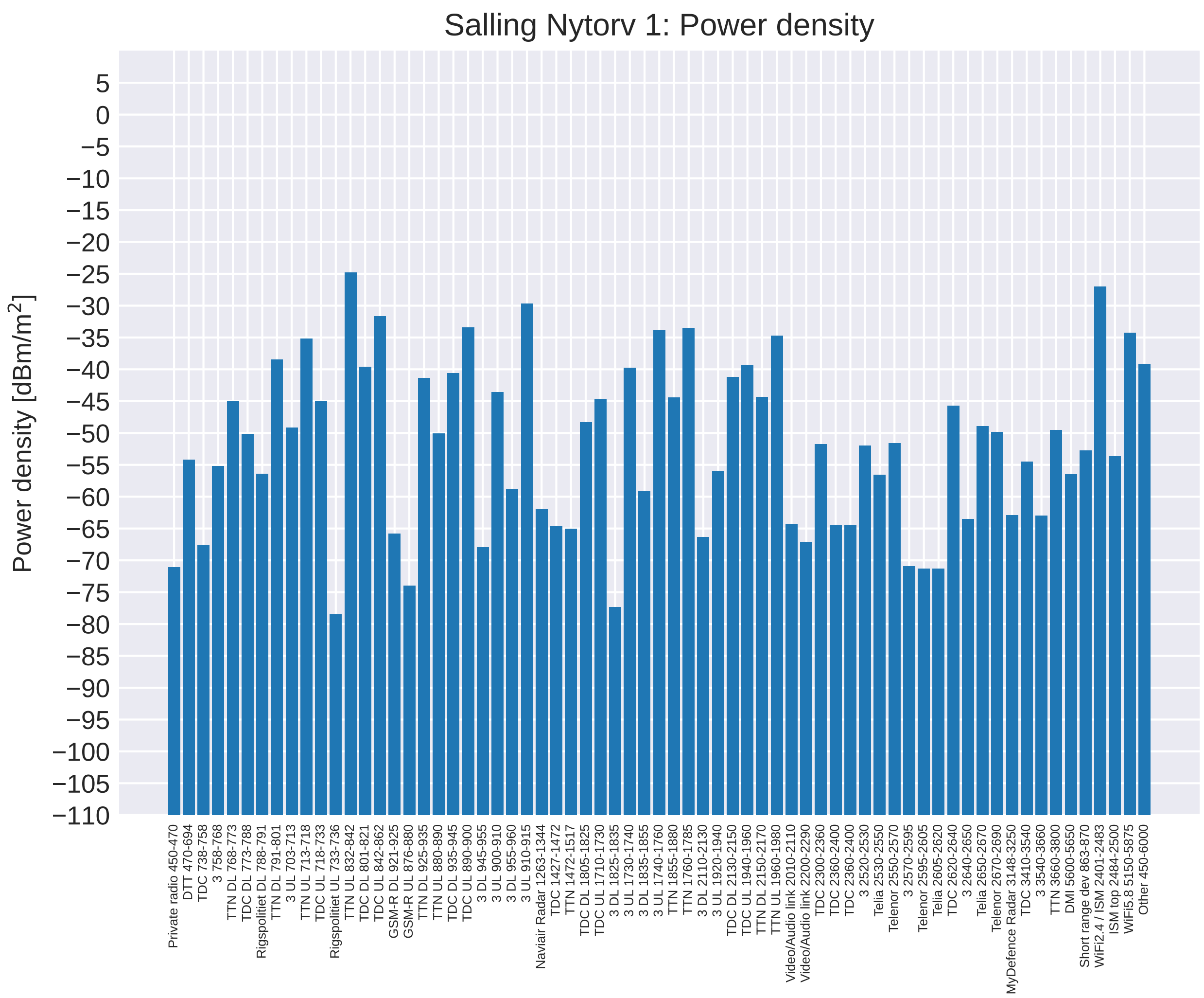
Salling Algade: Power Density as % of ref level
Power density norm. to ref level [%]
0.00010
0.00008
0.00006
0.00004
0.00002
0.00000
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000



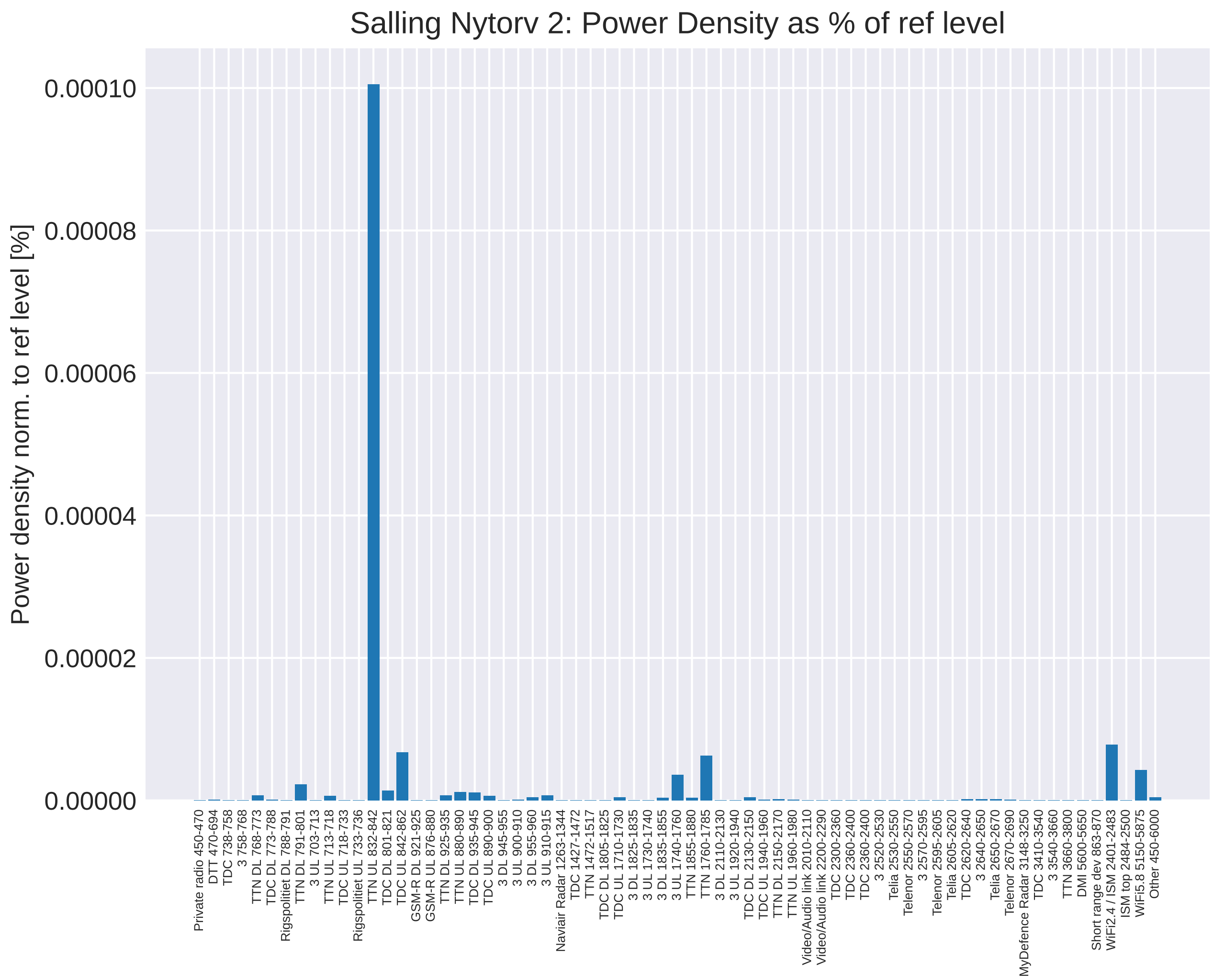
Salling Algade: Power density
Power density [dBm/m^2]
5
0
−5
−10
−15
−20
−25
−30
−35
−40
−45
−50
−55
−60
−65
−70
−75
−80
−85
−90
−95
−100
−105
−110
Private radio 450-470
DTT 470-694
TDC 738-758
3 758-768
TTN DL 768-773
TDC DL 773-788
Rigspolitiet DL 788-791
TTN DL 791-801
3 UL 703-713
TTN UL 713-718
TDC UL 718-733
Rigspolitiet UL 733-736
TTN UL 832-842
TDC DL 801-821
TDC UL 842-862
GSM-R DL 921-925
GSM-R UL 876-880
TTN DL 925-935
TTN UL 880-890
TDC DL 935-945
TDC UL 890-900
3 DL 945-955
3 UL 900-910
3 DL 955-960
3 UL 910-915
Naviair Radar 1263-1344
TDC 1427-1472
TTN 1472-1517
TDC DL 1805-1825
TDC UL 1710-1730
3 DL 1825-1835
3 UL 1730-1740
3 DL 1835-1855
3 UL 1740-1760
TTN 1855-1880
TTN 1760-1785
3 DL 2110-2130
3 UL 1920-1940
TDC DL 2130-2150
TDC UL 1940-1960
TTN DL 2150-2170
TTN UL 1960-1980
Video/Audio link 2010-2110
Video/Audio link 2200-2290
TDC 2300-2360
TDC 2360-2400
TDC 2360-2400
3 2520-2530
Telia 2530-2550
Telenor 2550-2570
3 2570-2595
Telenor 2595-2605
Telia 2605-2620
TDC 2620-2640
3 2640-2650
Telia 2650-2670
Telenor 2670-2690
MyDefence Radar 3148-3250
TDC 3410-3540
3 3540-3660
TTN 3660-3800
DMI 5600-5650
Short range dev 863-870
WiFi2.4 / ISM 2401-2483
ISM top 2484-2500
WiFi5.8 5150-5875
Other 450-6000

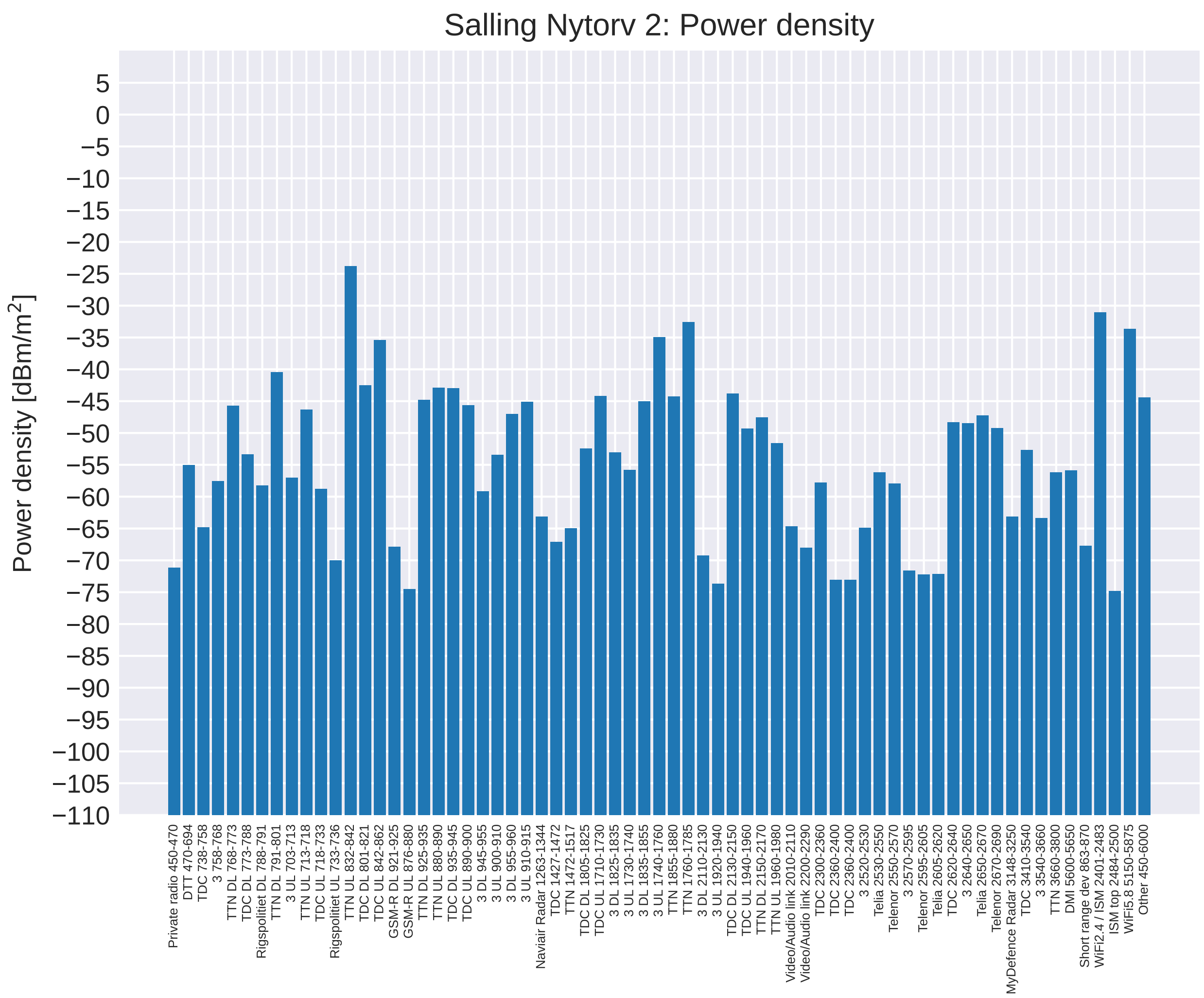


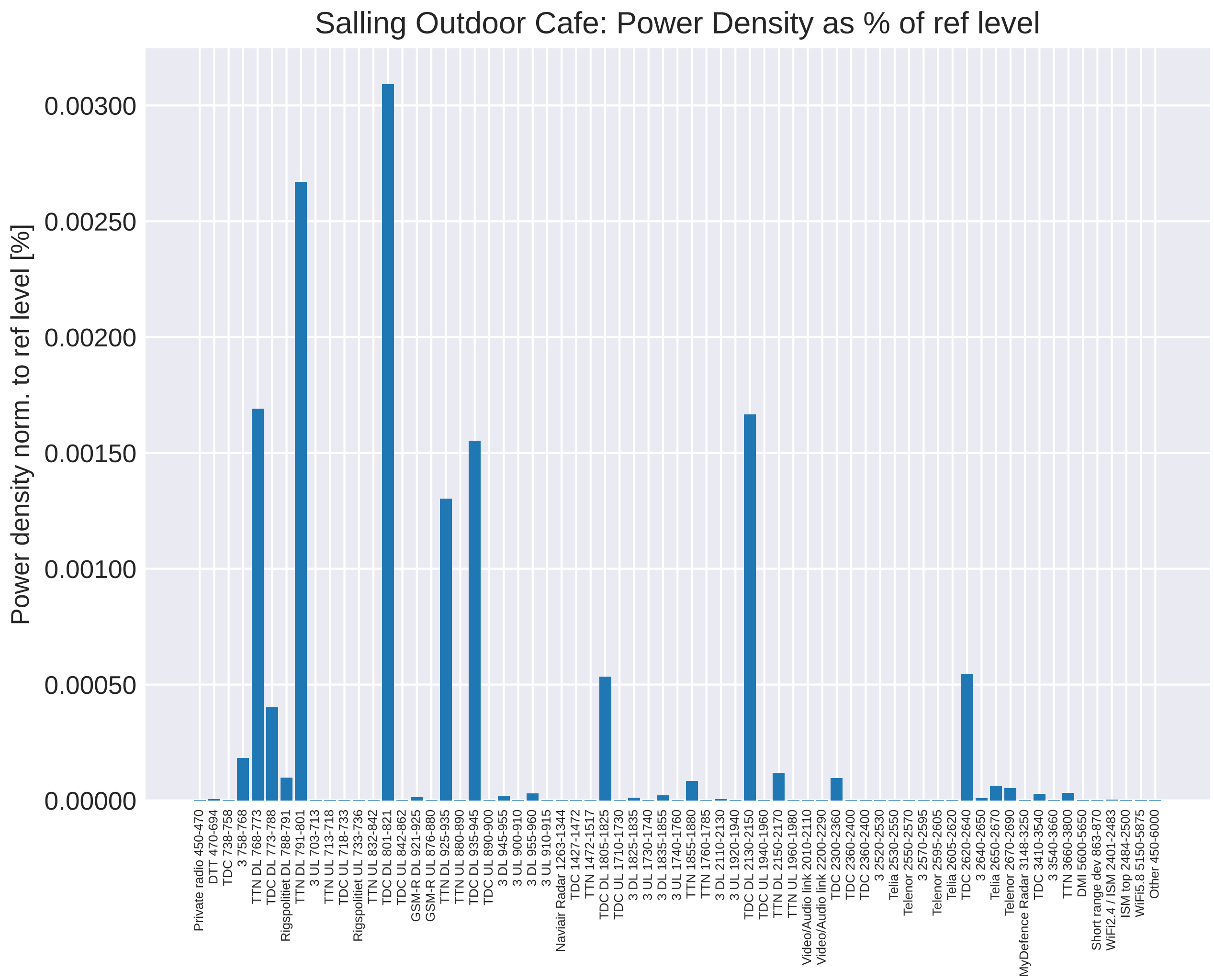
Salling Nytorv 1: Power Density as % of ref level
Power density norm. to ref level [%]
0.00010
0.00008
0.00006
0.00004
0.00002
0.00000

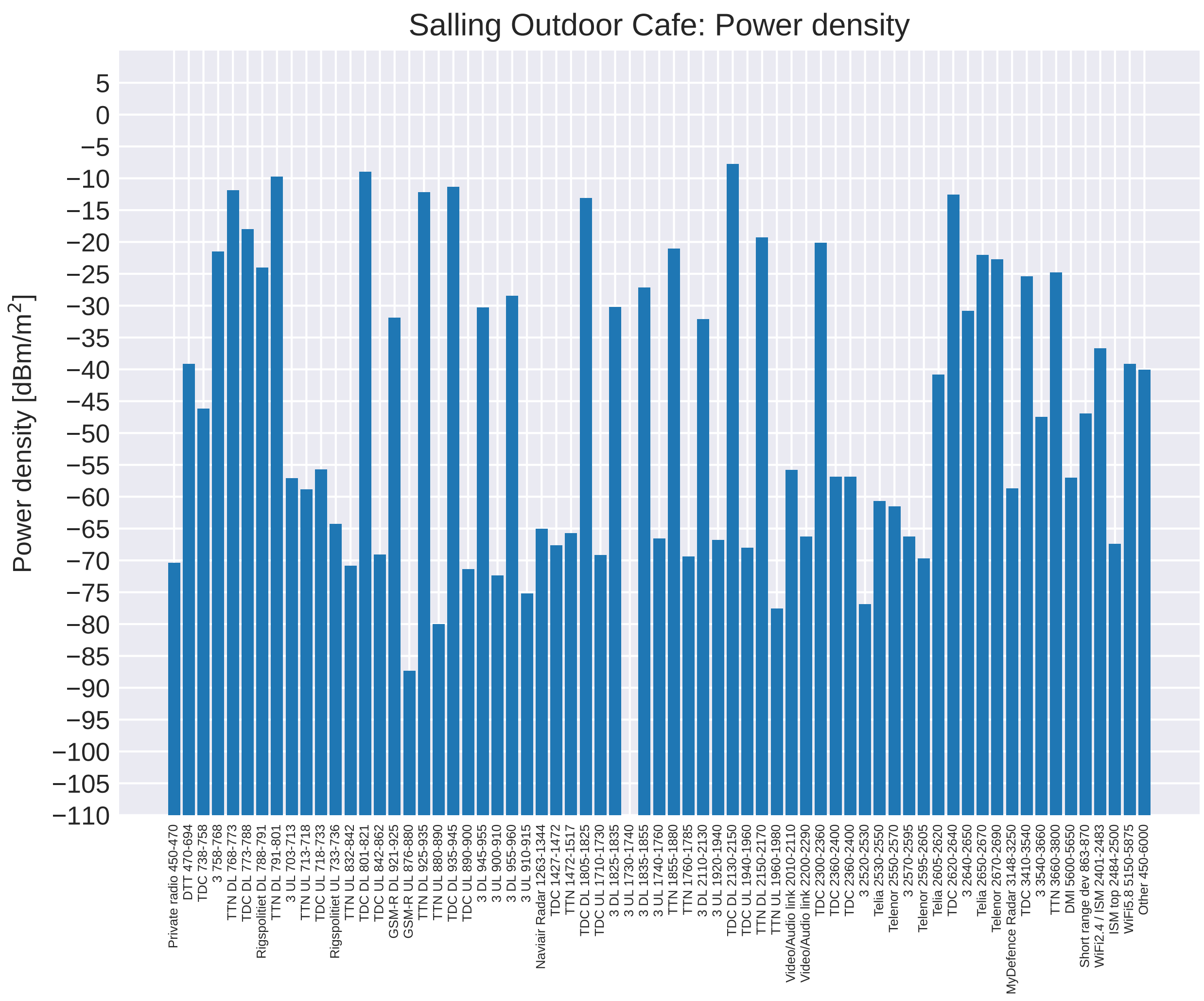


Salling Nytorv 1: Power density
Power density [dBm/m^2]


Salling Nytorv 2: Power Density as % of ref level
Power density norm. to ref level [%]


Salling Nytorv 2: Power density
Power density [dBm/m2]


Salling Outdoor Cafe: Power Density as % of ref level
Power density norm. to ref level [%]
0.00300
0.00250
0.00200
0.00150
0.00100
0.00050
0.00000


Salling Outdoor Cafe: Power density
Power density [dBm/m^2]