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RADIO FREQUENCY EMISSION SURVEY

Performed for: T-Mobile / Sprint

Field	Data
Cascade ID (survey #)	**BA61730S**
Alt Site ID	VB: Brentwood Monopole
Address	575 Camino Diablo
	Brentwood, CA 94513
Lat/Lon	37.87330555, -121.6842222

Survey Trigger	Annual Compliance/Carrier Add/Mod
Date of Survey	12/11/2024
Date of Report	12/12/2024

FCC COMPLIANT SITE

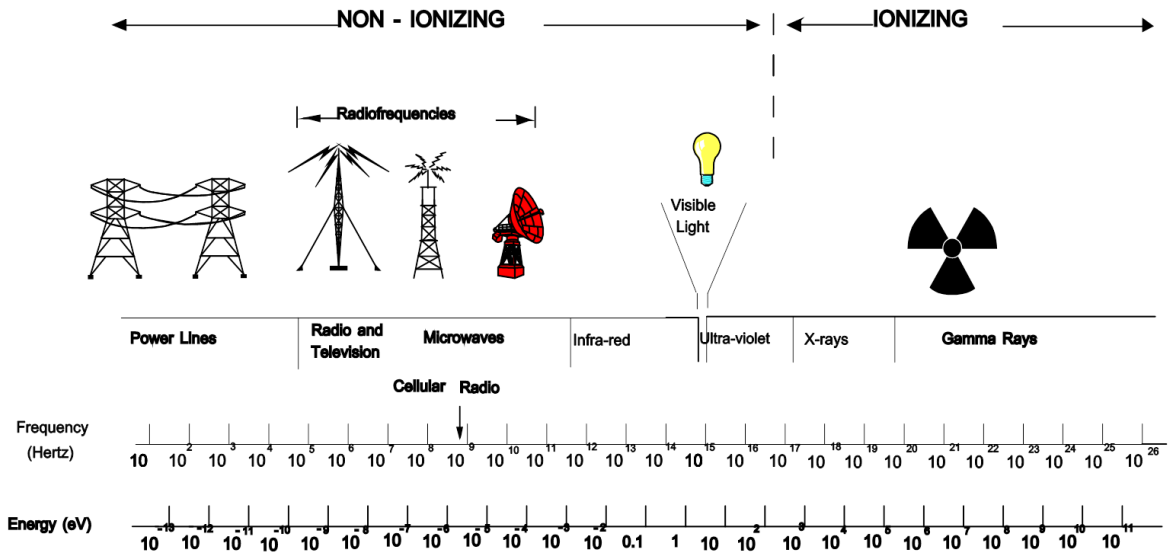
Site Photo

1. Introduction

The electromagnetic spectrum includes various forms of electromagnetic energy from extremely low frequency energy, with very long wavelengths, to x-rays and gamma rays, which have very high frequencies and short wavelengths. In between are radio waves, microwaves, infrared, visible light and ultraviolet, for example.

As depicted in Figure 2-1, the frequencies from T-Mobile's equipment emit non-ionizing energy. The effects of non-ionizing energy are non-cumulative. Non-ionizing energy can turn into heat, if absorbed. (By comparison, ionizing energy is generally cumulative and can cause chemical and biological changes.)

Figure 1-1



(FCC OET Bulletin 56, Fourth Ed.)

T-Mobile has installed RF transmitting antennas at the following location (the "wireless telecommunications facility"):

575 Camino Diablo
Brentwood, CA 94513
T-Mobile Site ID: BA61730S

Field	Data
Facility and Access	
Facility Type	forty feet monopole
Access Type	fence gate
Access Restrictions	combo lock
Facility Area Classification	controlled (occupational population)
RF Signage	
Type(s)	RF notice, guidelines, information
Location	fence gate, BTS area, at antenna A/B
Measurement Results	
Max RF Level in Accessible Areas on Rooftop/Facility	0.48% of the occupational standard or (2.4% of general population standard)
Max RF Level at Surrounding Street Level Around Site	2.4% of general population standard
Compliance	
FCC Compliance Conclusion	The site is in compliance with FCC limits and guidelines

Table 1-1 Report Summary

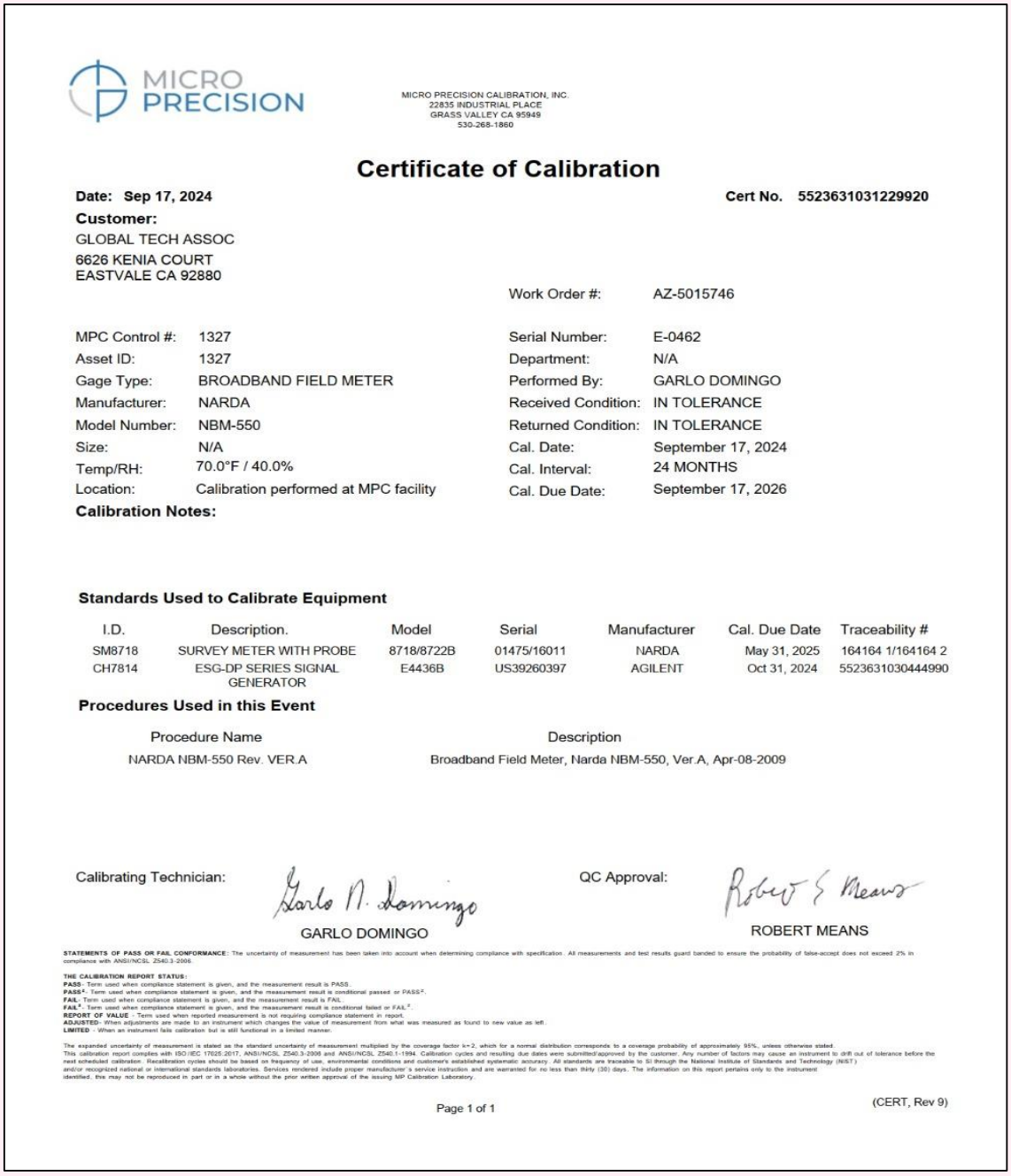
Global Technology Associates performed an RF emission survey of the RF environment surrounding the facilities installed by T-Mobile at this location. Description of the facility: the facility is located on a/an forty feet monopole. Access to the area of interest involved with this survey is via fence gate secured by a/an/the combo lock.

T-Mobile is licensed by the Federal Communications Commission ("FCC") to provide wireless communications services. As required by the FCC, wireless system operators perform an assessment of the potential human exposure to radio frequency emissions emanating from transmitting antennas at the site.

The physical survey verified antenna placement and technical specifications for accurate recommendations to determine compliance with FCC guidelines. Antenna specifications presented herein are based on direct evidence from an antenna or transmitter cabinet, information from the site manager or building manager, information from the licensees, educated estimates by the field technician or a combination of some or all of these sources.

Certifications

Figure 1-1 Certification of Calibration for NARDA Meter



MICRO PRECISION

MICRO PRECISION CALIBRATION, INC.
22835 INDUSTRIAL PLACE
GRASS VALLEY CA 95949
530-268-1860

Certificate of Calibration

Date: Sep 17, 2024 **Cert No. 5523631031229920**

Customer:
GLOBAL TECH ASSOC
6626 KENIA COURT
EASTVALE CA 92880

Work Order #: AZ-5015746

MPC Control #:	1327	Serial Number:	E-0462
Asset ID:	1327	Department:	N/A
Gage Type:	BROADBAND FIELD METER	Performed By:	GARLO DOMINGO
Manufacturer:	NARDA	Received Condition:	IN TOLERANCE
Model Number:	NBM-550	Returned Condition:	IN TOLERANCE
Size:	N/A	Cal. Date:	September 17, 2024
Temp/RH:	70.0°F / 40.0%	Cal. Interval:	24 MONTHS
Location:	Calibration performed at MPC facility	Cal. Due Date:	September 17, 2026

Calibration Notes:

Standards Used to Calibrate Equipment

I.D.	Description.	Model	Serial	Manufacturer	Cal. Due Date	Traceability #
SM8718	SURVEY METER WITH PROBE	8718/8722B	01475/16011	NARDA	May 31, 2025	164164 1/164164 2
CH7814	ESG-DP SERIES SIGNAL GENERATOR	E4436B	US39260397	AGILENT	Oct 31, 2024	5523631030444990

Procedures Used in this Event

Procedure Name	Description
NARDA NBM-550 Rev. VER.A	Broadband Field Meter, Narda NBM-550, Ver.A, Apr-08-2009

Calibrating Technician: Garlo N. Domingo — GARLO DOMINGO

QC Approval: Robert S Means — ROBERT MEANS

STATEMENTS OF PASS OR FAIL CONFORMANCE: The uncertainty of measurement has been taken into account when determining compliance with specification. All measurements and test results guard banded to ensure the probability of false-accept does not exceed 2% in compliance with ANSI/NCSL Z540.3-2006.

THE CALIBRATION REPORT STATUS:
PASS - Term used when compliance statement is given, and the measurement result is PASS.
PASS* - Term used when compliance statement is given, and the measurement result is conditional passed or PASS*.
FAIL - Term used when compliance statement is given, and the measurement result is FAIL.
FAIL* - Term used when compliance statement is given, and the measurement result is conditional failed or FAIL*.
REPORT OF VALUE - Term used when reported measurement is not requiring compliance statement in report.
ADJUSTED - When adjustments are made to an instrument which changes the value of measurement from what was measured as found to new value as left.
LIMITED - When an instrument fails calibration but is still functional in a limited manner.

The expanded uncertainty of measurement is stated as the standard uncertainty of measurement multiplied by the coverage factor k=2, which for a normal distribution corresponds to a coverage probability of approximately 95%, unless otherwise stated.
This calibration report complies with ISO/IEC 17025:2017, ANSI/NCSL Z540.3-2006 and ANSI/NCSL Z540.1-1994. Calibration cycles and resulting due dates were submitted/approved by the customer. Any number of factors may cause an instrument to drift out of tolerance before the next scheduled calibration. Recalibration cycles should be based on frequency of use, environmental conditions and customer's established systematic accuracy. All standards are traceable to SI through the National Institute of Standards and Technology (NIST) and/or recognized national or international standards laboratories. Services rendered include proper manufacturer's service instruction and are warranted for no less than thirty (30) days. The information on this report pertains only to the instrument identified, this may not be reproduced in part or in a whole without the prior written approval of the issuing MP Calibration Laboratory.

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(CERT, Rev 9)

Figure 1-2 Certification of Calibration for NARDA Probe

MICRO PRECISION

MICRO PRECISION CALIBRATION, INC.
22835 INDUSTRIAL PLACE
GRASS VALLEY CA 95949
530-268-1860

Certificate of Calibration

Date: Sep 13, 2024 **Cert No. 5523631031224432**

Customer:
GLOBAL TECH ASSOC
6626 KENIA COURT
EASTVALE CA 92880

Work Order #: AZ-5015746

MPC Control #:	1328	Serial Number:	01033
Asset ID:	1328	Department:	N/A
Gage Type:	PROBE	Performed By:	GARLO DOMINGO
Manufacturer:	NARDA	Received Condition:	IN TOLERANCE
Model Number:	EA5091	Returned Condition:	IN TOLERANCE
Size:	300 kHz - 50 GHz	Cal. Date:	September 13, 2024
Temp/RH:	70.0°F / 40.0%	Cal. Interval:	24 MONTHS
Location:	Calibration performed at MPC facility	Cal. Due Date:	September 13, 2026

Calibration Notes:

Standards Used to Calibrate Equipment

I.D.	Description.	Model	Serial	Manufacturer	Cal. Due Date	Traceability #
SM8718	SURVEY METER WITH PROBE	8718/8722B	01475/16011	NARDA	May 31, 2025	164164 1/164164 2
CH7814	ESG-DP SERIES SIGNAL GENERATOR	E4436B	US39260397	AGILENT	Oct 31, 2024	5523631030444990

Procedures Used in this Event

Procedure Name	Description
NARDA NBM-550 Rev. VER.A	Broadband Field Meter, Narda NBM-550, Ver.A, Apr-08-2009

Calibrating Technician: Garlo N. Domingo
GARLO DOMINGO

QC Approval: Robert S Means
ROBERT MEANS

STATEMENTS OF PASS OR FAIL CONFORMANCE: The uncertainty of measurement has been taken into account when determining compliance with specification. All measurements and test results guard banded to ensure the probability of false-accept does not exceed 2% in compliance with ANSI/NCSL Z540.3-2006.

THE CALIBRATION REPORT STATUS:
PASS - Term used when compliance statement is given, and the measurement result is PASS.
PASS[2] - Term used when compliance statement is given, and the measurement result is conditional passed or PASS[2].
FAIL - Term used when compliance statement is given, and the measurement result is FAIL.
FAIL[2] - Term used when compliance statement is given, and the measurement result is conditional failed or FAIL[2].
REPORT OF VALUE - Term used when reported measurement is not requiring compliance statement in report.
ADJUSTED - When adjustments are made to an instrument which changes the value of measurement from what was measured as found to new value as left.
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This calibration report complies with ISO/IEC 17025:2017, ANSI/NCSL Z540.3-2006 and ANSI/NCSL Z540.1-1994. Calibration cycles and resulting due dates were submitted/approved by the customer. Any number of factors may cause an instrument to drift out of tolerance before the next scheduled calibration. Recalibration cycles should be based on frequency of use, environmental conditions and customer's established systematic accuracy. All standards are traceable to SI through the National Institute of Standards and Technology (NIST) and/or recognized national or international standards laboratories. Services rendered include proper manufacturer's service instruction and are warranted for no less than thirty (30) days. The information on this report pertains only to the instrument identified, this may not be reproduced in part or in a whole without the prior written approval of the issuing MP Calibration Laboratory.

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(CERT, Rev 9)

A survey was performed on 12/11/2024 to determine the RF emission levels present at the site.

Measurements were performed on the areas considered accessible to the occupational population. At this site, additional steps were taken to assess areas accessible to the general population. The results of the measurements were the combined energy levels of T-Mobile antennas. To measure the RF emissions within the vicinity Global Technology Associates utilized the following equipment to perform measurements:

Probe - EA5091 Serial Number: 01033 Freq Range: 300KHz-50GHz | with Meter - NBM-550 Serial Number: E-0462 Calibration was performed by Manufacturer and is due on the following dates: Meter: 09/17/2026 | Probe: 09/13/2026

2. Site Configuration

The data below enumerates the specifications of T-Mobile wireless telecommunications facility.

2-1 Technical Specifications on File: T-Mobile		
Description	**600/700/1900/2100**	**2500**
Number of sectors	2	2
Number of antennas per sector	1	1
Azimuth of Antennas (degrees)	120/325	120/325
Model of Antennas	APXVAALL24_43-U-NA20	AIR6449 B41
Manufacturer of Antennas	RFS	Ericsson
Centerline Above Ground of Antennas (ft)	37	37
Reference Antenna Numbers	1 & 2	4 & 5

Table 2-1

2-2 Verification of Technical Specifications			
Description	**Alpha**	**Beta**	**Gamma**
Azimuth of Antennas (degrees) 600/700/1900/2100	120	325	N/A
Azimuth of Antennas (degrees) 2500	120	325	N/A
Antenna Height Above Walking Surface (ft)	33 | 35.625	33 | 35.625	N/A | N/A

Table 2-2

CNV- Can Not Verify, NoAc-No Access

2-3 Observed Specifications of Other Carriers					
Carrier/Freq	**Type**	**Ref. Antenna Numbers**	**Make/Model**	**Heights***	**Azimuths**
N/A					

Table 2-3

* above walking surface

3. Site Location

3-1 Map of the Location of the T-Mobile Wireless Telecommunications Facility

4. Photos

The following photos show the T-Mobile wireless telecommunications facility.

Road Gate Access From Outside

Road Gate Access From Inside

Access Point From Outside

Access Point From Inside

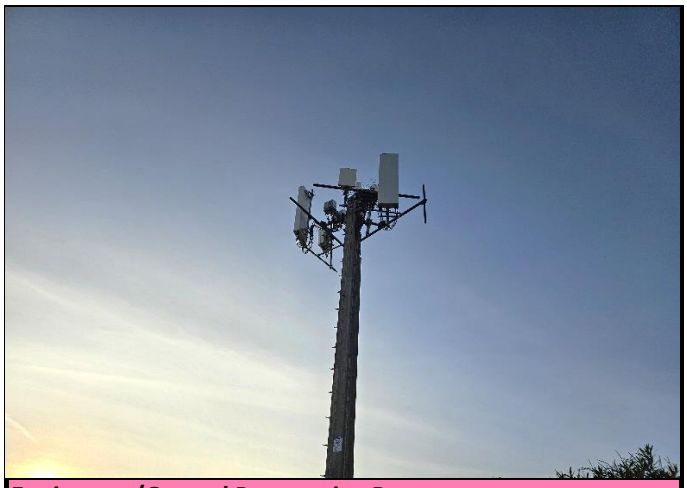
Signage or additional access point photo

Signage / Barriers At BTS Area

Signage / Barriers At Alpha Sector

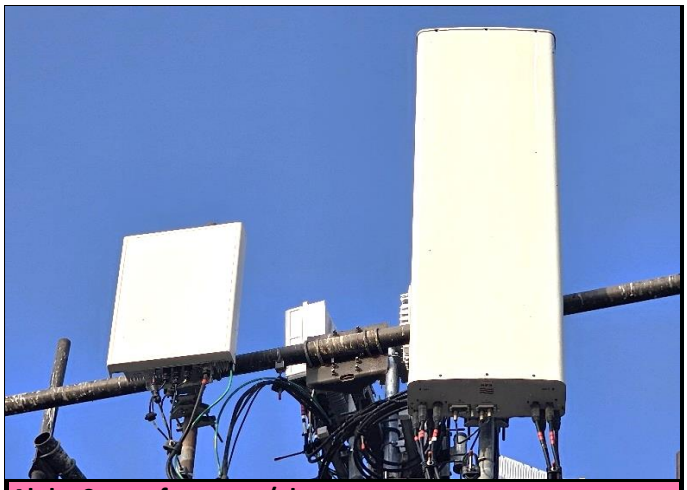
Signage / Barriers At Beta Sector

Equipment/Ground Prospective A

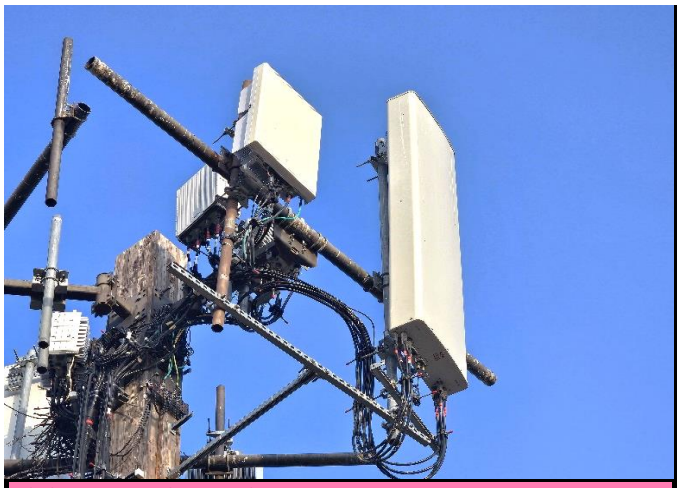


Equipment/Ground Prospective B

Equipment/Ground Prospective BTS

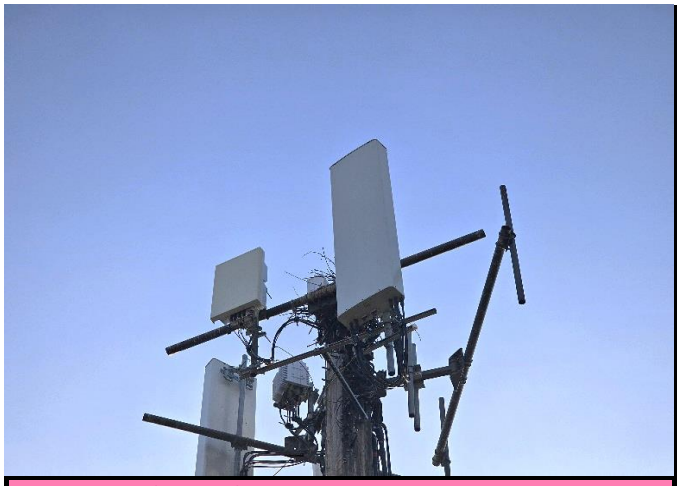


Alpha Sector from rear/above



Alpha Sector diagonal view

Beta Sector from rear/above



Beta Sector diagonal view

Alpha Sector View from Ladder

Beta Sector View from Ladder

BTS Area

Site Overview from Street View (Front)

Site Overview from Street View (Diagonal)

5. RF Survey

RF emission levels were assessed through direct measurements at the transmitter site using properly calibrated field probes. Due to the possibility that Electromagnetic Energy ("EME") fields may exist over a wide frequency range within which the exposure limits vary, field measurements were performed with a meter equipped with a frequency shaped probe that can automatically weigh each field contribution in accordance with its frequency.

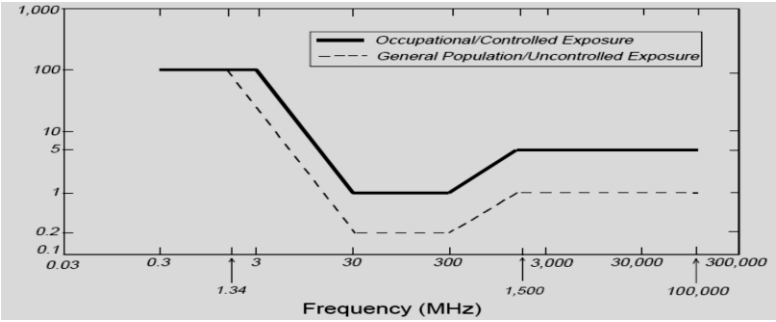
6. FCC Policy on Human Exposure to RF Emissions

The FCC guidelines for human exposure to RF emissions were derived from the recommendations of two expert organizations, the National Council on Radiation Protection and Measurements ("NCRP") and the Institute of Electrical and Electronics Engineers ("IEEE"). The exposure guidelines are based on thresholds for known adverse effects and they incorporate an appropriate margin of safety. The federal health and safety agencies such as the Environmental Protection Agency ("EPA"), the Food and Drug Administration ("FDA"), the National Institute on Occupational Safety and Health ("NIOSH") and the Occupational Safety and Health Administration ("OSHA") have also been actively involved in monitoring and investigating issues related to RF exposure.

The FCC's Maximum Permissible Exposure ("MPE") limits are based on exposure limits (over a wide range of frequencies) recommended by the NCRP and the exposure limits developed by the IEEE and adopted by the American National Standards Institute ("ANSI"). The limits for localized absorption are based on the recommendations of both the ANSI/IEEE and the NCRP. The potential hazard associated with the RF electromagnetic fields is discussed in OET Bulletin No. 56 "Question and Answer about the Biological Effects and Potential Hazards of Radiofrequency Electromagnetic Fields." This document can be obtained on the FCC website at www.fcc.gov. The table and the graph below represent the FCC limits for both occupational and general population exposures to different radio frequencies:

Frequency Range (*f*) (MHz)	Occupational Exposure (mW/cm^2)	General Population Exposure (mW/cm^2)
0.3 – 1.34	100	100
1.34 - 3.0	100	$180 / f^2$
3.0 - 30	$900 / f^2$	$180 / f^2$
30 – 300	1	0.2
300 – 1,500	$f / 300$	$f / 1500$
1,500 – 100,000	5	1

Table 6-1 FCC Limits for Maximum Permissible Exposure



Graph 6-1 FCC Limits for Maximum Permissible Exposure

7. Discussion of Safety Criteria

Energy levels associated with the RF radiations are not great enough to cause the ionization of atoms and molecules. “Ionization” is a process by which electrons are stripped from atoms and molecules. This process can produce molecular changes that can lead to damage in biological tissue including effects on DNA, the genetic material. This process requires interaction with high levels of electromagnetic energy. Those types of electromagnetic radiation with enough energy to ionize biological material include x-radiation and gamma radiation. Therefore, x-rays and gamma rays are examples of ionizing radiation (see Section 1 for additional information).

RF energy is a type of non-ionizing radiation. Other types of non-ionizing radiation include visible light, infrared radiation and other forms of electromagnetic radiation with relatively low frequencies. Often the term “radiation” is used to apply to ionizing radiation associated with nuclear power plants. Ionizing radiation should not be confused with the lower energy, non-ionizing radiation with respect to possible biological effects.

The RF emissions from antennas used for wireless telecommunications typically result in exposure levels at the site that are well below the limits recommended by the FCC. These limits were adopted by the FCC based on the recommendations of expert organizations and endorsed by agencies of the Federal Government responsible for health and safety. Therefore, there is little reason to believe that such antennas could pose a potential health hazard to the general population.

Other antennas, such as those used for radio and television broadcast transmissions, use power levels that are generally higher than those used for wireless antennas. Therefore, in some cases, there could be a potential for higher levels of exposure on the site. However, all broadcast stations are also required to demonstrate compliance with the FCC guidelines.

8. Field Measurements

8-1 Ground Level Readings

A RF emissions survey was performed on the wireless telecommunications facility. This survey included walking around the structure and noting the maximum max hold & spatial average readings encountered. The maximum value of the max hold readings of RF emissions encountered on the ground level was: 0.48% of the occupational standard or (2.4% of general population standard).

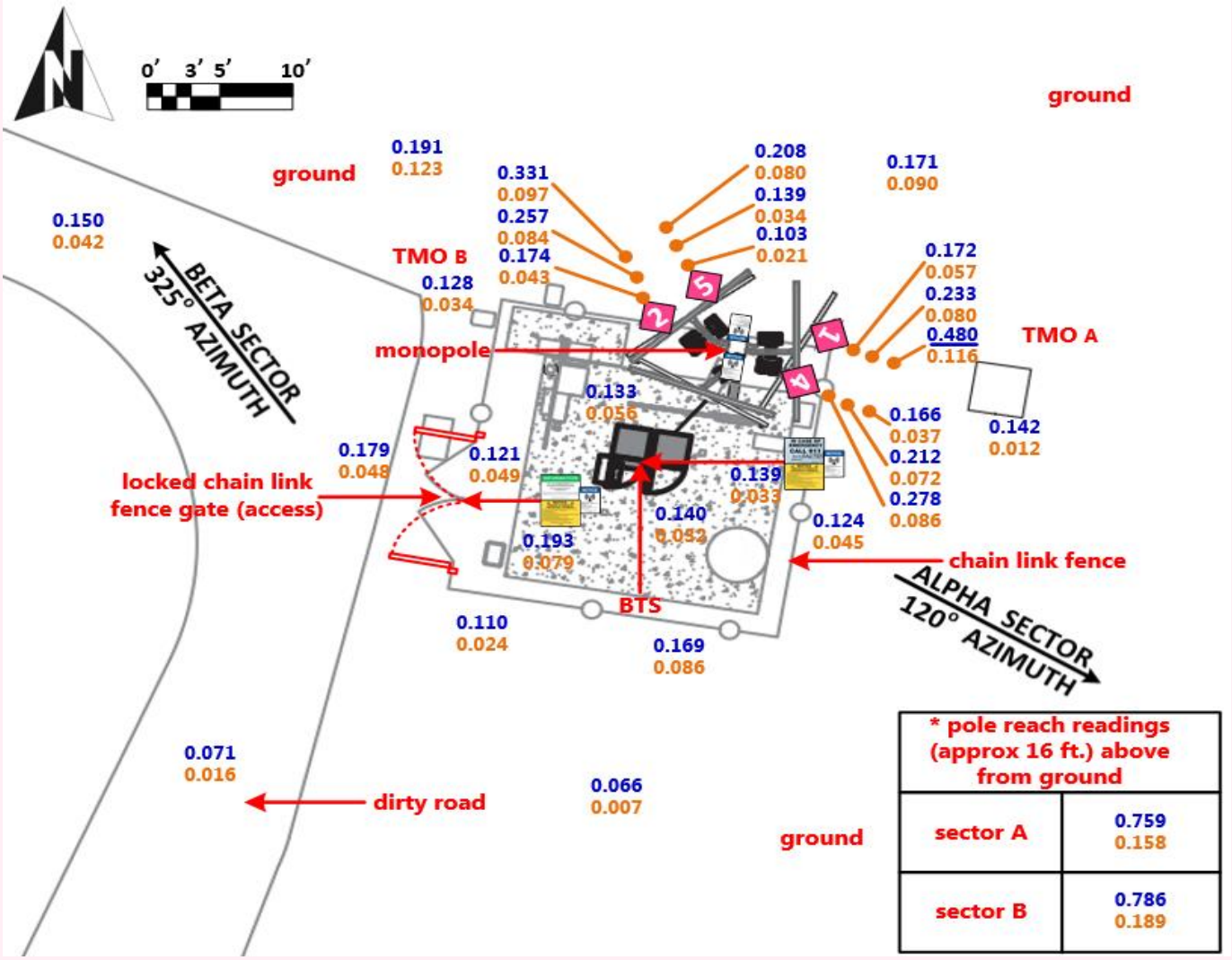
Below is the layout depicting the actual readings (% of the FCC MPE Occupational or Population Standard limits) at various locations at the site. Various measurements were taken to indicate the RF emissions levels that can be encountered by an individual who gains access to the area of interest involved with the survey.

Figure 8-1 Site Diagram with MPE Measurements (Occupational)

Site Plan with Monitoring Results

Facility Operator :- T-Mobile
Site Number :- BA61730S
Site Name :- VB: Brentwood Monopole
Site Visit Date :- 12-11-2024

GTA Solutions for a Wireless World



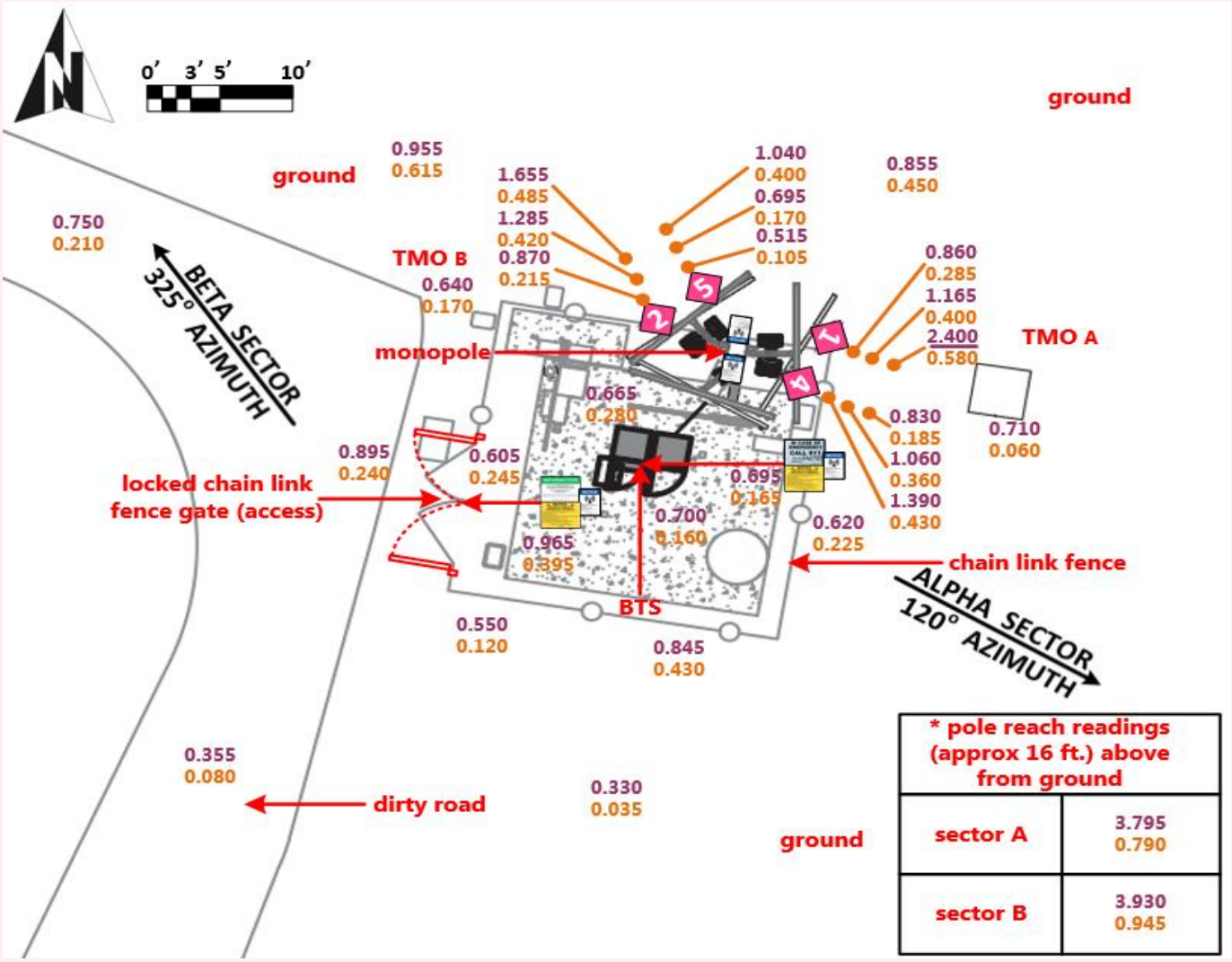
* pole reach readings (approx 16 ft.) above from ground	
sector A	0.759 0.158
sector B	0.786 0.189

T-Mobile Antennas		%	RF Max Roof-Top and/or Occupational Population Area Measurement
T-Mobile MW Dish Antennas		%	RF Max Ground and/or General Population Area Measurement
Other(s) Antennas(s)		%	RF Max Spatial Average Measurement
Other(s) MW Dish Antennas(s)		ENTRY	Important Notes
RF Signage			

Figure 8-2 Site Diagram with MPE Measurements (General Population)

Site Plan with Monitoring Results

Facility Operator :- T-Mobile
Site Number :- BA61730S
Site Name :- VB: Brentwood Monopole
Site Visit Date :- 12-11-2024



* pole reach readings (approx 16 ft.) above from ground	
sector A	3.795 0.790
sector B	3.930 0.945

T-Mobile Antennas	%	RF Max Roof-Top and/or Occupational Population Area Measurement
T-Mobile MW Dish Antennas	%	RF Max Ground and/or General Population Area Measurement
Other(s) Antennas(s)	%	RF Max Spatial Average Measurement
Other(s) MW Dish Antennas(s)	ENTRY	Important Notes
RF Signage		

8-2 Antenna Vicinity Measurements of T-Mobile NV/2.5 Antennas and Others

Measurements taken from each antenna. This is performed at distances of 1 foot, 3 foot, and 6 foot, whenever possible. NV/2.5 taken from the rear of the antenna when front is not available, taken from the facility ground level proximal to antenna placement when antenna level access is not available. Other antennas taken only when antenna face is within reachable level of measurement and/or when it is a significant contributor to the overall RF environment.

Antenna Readings (refer to sketch 8-2/site configuration section 2)					
Antenna 1 (Alpha NV or Tri-Band)		***Antenna 2 (Beta NV or Tri-Band)***		***n/a***	
1' (MH)	0.860	**1' (MH)**	0.870	**n/a**	n/a
3' (MH)	1.165	**3' (MH)**	1.285	**n/a**	n/a
6' (MH)	2.400	**6' (MH)**	1.655	**n/a**	n/a
Antenna 4 (Alpha NV or Tri-Band)		***Antenna 5 (Beta NV or Tri-Band)***		***n/a***	
1' (MH)	1.390	**1' (MH)**	0.515	**n/a**	n/a
3' (MH)	1.060	**3' (MH)**	0.695	**n/a**	n/a
6' (MH)	0.830	**6' (MH)**	1.040	**n/a**	n/a
n/a		***n/a***		***n/a***	
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a		***n/a***		***n/a***	
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a	n/a	**n/a**	n/a	**n/a**	n/a
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n/a		***n/a***		***n/a***	
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a	n/a	**n/a**	n/a	**n/a**	n/a
n/a	n/a	**n/a**	n/a	**n/a**	n/a

NoAc = No Access To Ant. For Walk Off Measurements - Height/Surface Restriction — max reading attained in red

(MH) Max Hold - Quick Measurement (always higher than true measurement)

(SA) Spatial Average - True Measurement (shown when Max Hold > 20% occupational / 100% general population)

The above measurements are shown for the FCC's General Population Levels.

Any antennas not listed 1-18 had either no access to the antennas, was barriered, was out of reach, or had a minimal contribution to overall environment and was not recorded

9. Conclusion

Compliance with the FCC's rules on human exposure to RF emissions at wireless telecommunications facilities generally is determined by comparing actual measurements taken at the facility to the FCC's MPE limits.

The results of the instant survey indicate the maximum levels of RF emissions exposure do not exceed applicable FCC MPE limits for occupational and general population exposure.

The highest level of RF emissions measured was 0.48% of the FCC's MPE limits based on the occupational exposure standard or (2.4% of general population standard).

A controlled/occupational environment assumes that access to the facility is generally restricted to authorized personnel and facility management and members of the general population will not be able to access the rooftop and/or wireless telecommunications facility.

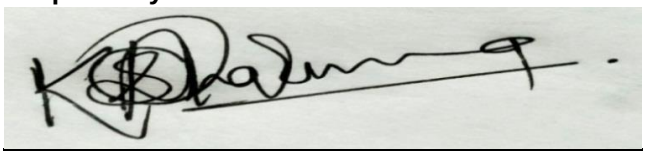
An uncontrolled/general population environment assumes that access to the facility is not generally restricted to authorized personnel and facility management and members of the general population will be able to access the rooftop and/or wireless telecommunication facility.

This facility's Area of Interest is considered a controlled (occupational population) environment. The site is incompliance with FCC limits and guidelines per MPE standard for the environment.

10. Certification

This report was prepared for T-Mobile and serves as certification for compliance of the existing T-Mobile wireless telecommunications facility. The analysis and computation provided herein is based on applicable FCC regulations concerning RF safety and the control of human exposure to RF emissions. The information and analysis contained in this report is accurate and complete to the best knowledge and belief of the undersigned.

Prepared by:



12/12/2024

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