



Radio Frequency Exposure Analysis Report

AT&T Utility Pole Facility

February 1, 2023

Analysis Format: Actual Measurements



Statement of Compliance

AT&T is compliant with FCC Regulations.

Site #: 2116093E

Site Name: 13207 PEACH HILL RD

Across from 13197 Golondrina Street on Peach Hill Road, Moorpark, CA 93021



Michael Fischer, P.E.
Registered Professional Engineer (Electrical)
California License Number 22921
Expires September 30, 2023

Signed 01 February 2023

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Overview

Centerline Communications, LLC (“Centerline”) has been contracted to provide a Radio Frequency (RF) analysis for the following AT&T utility pole facility to determine whether the facility is in compliance with federal standards and regulations regarding RF exposure. This analysis includes an in-field site audit and measurements taken at the facility.

Centerline, founded in 2006, is an industry leader in the evaluation of such deployments for compliance with the Federal Communications Commission (FCC) rules and regulations regarding RF electromagnetic energy (RF-EME) and has analyzed thousands of wireless facilities via both theoretical modeling and empirical measurements.

The subject facility is located on a 64.7' utility pole in Moorpark, California.

Analysis Site Data

Site ID:	2116093E
Site Name:	13207 PEACH HILL RD
Site Address:	Across from 13197 Golondrina Street on Peach Hill Road, Moorpark, CA 93021
Site Latitude:	34.267942
Site Longitude:	-118.87860
Facility Type:	Utility Pole - Wood

Compliance Summary

Status:	AT&T is compliant with FCC Regulations
Highest Measured MPE% (General Population Limit):	0.025%

Site Survey Data

Survey Date:	12/19/2022		
Is Access Locked or Controlled?:	No		
Lock or Control Measures if Present:	Not Restricted		
Site Visit Date:	December 19, 2022	Survey Technician:	Robert Davis
Meter Model / Serial No:	Wavecontol SMP2 / 22SN1927	Probe Model / Serial No:	Wavecontrol WPF60S / 22WP220035
Meter Calibration Date:	1/6/2022	Probe Calibration Date:	1/6/2022

There are no additional system operators located on this facility or considered as part of this analysis.

FCC Guidelines

All information used in this report was analyzed as a percentage of the Maximum Permissible Exposure (% MPE) limits as detailed in 47 CFR § 1.1310 as well as FCC OET Bulletin 65 Edition 97-01. The FCC MPE limits are typically expressed in units of milliwatts per square centimeter (mW/cm^2) or microwatts per square centimeter ($\mu\text{W}/\text{cm}^2$). The exposure limits vary depending upon the frequencies being utilized. The General Population/Uncontrolled MPE limit (in mW/cm^2) for frequencies between 300 and 1500 is defined as frequency (in MHz) divided by 1500 ($f_{\text{MHz}}/1500$). Frequencies between 1500 and 100,000 MHz have a General Population/Uncontrolled MPE limit of $1 \text{ mW}/\text{cm}^2$ ($1000 \mu\text{W}/\text{cm}^2$). The calculated power density at each sample point divided by the limit at each calculated frequency provides a result in % MPE. Summing the calculated % MPE from all contributors provides a cumulative % MPE at a particular sample point. Because exposure limits may vary for each frequency band, it is necessary to report % MPE rather than power density.

All results were compared to the FCC radio frequency exposure rules as detailed in 47 CFR § 1.1307(b) to determine compliance with the MPE limits for General Population/Uncontrolled environments as defined below.

General population/uncontrolled exposure limits apply to situations in which the general population may be exposed or in which persons who are exposed as a consequence of their employment may not be made fully aware of the potential for exposure or cannot exercise control over their exposure. Therefore, members of the general population would always be considered under this category when exposure is not employment related, for example, in the case of a telecommunications tower that exposes persons in a nearby residential area.

Occupational/controlled exposure limits apply to situations in which persons are exposed as a consequence of their employment and in which those persons who are exposed have been made fully aware of the potential for exposure and can exercise control over their exposure. Occupational/controlled exposure limits also apply where exposure is of a transient nature as a result of incidental passage through a location where exposure levels may be above general population/uncontrolled limits, as long as the exposed person has been made fully aware of the potential for exposure and can exercise control over his or her exposure by leaving the area or by some other appropriate means. Additional details can be found in FCC OET 65.

The FCC mandates that if a site is found to be out of compliance with regard to exposure, any system operator contributing 5% or more to areas exceeding the FCC's allowable limits will be responsible for bringing the site into compliance.

Additional details can be found in FCC OET 65.

Site Photographs

The following pages contain photographs taken from the site survey on December 19, 2022.



Site Overview 1



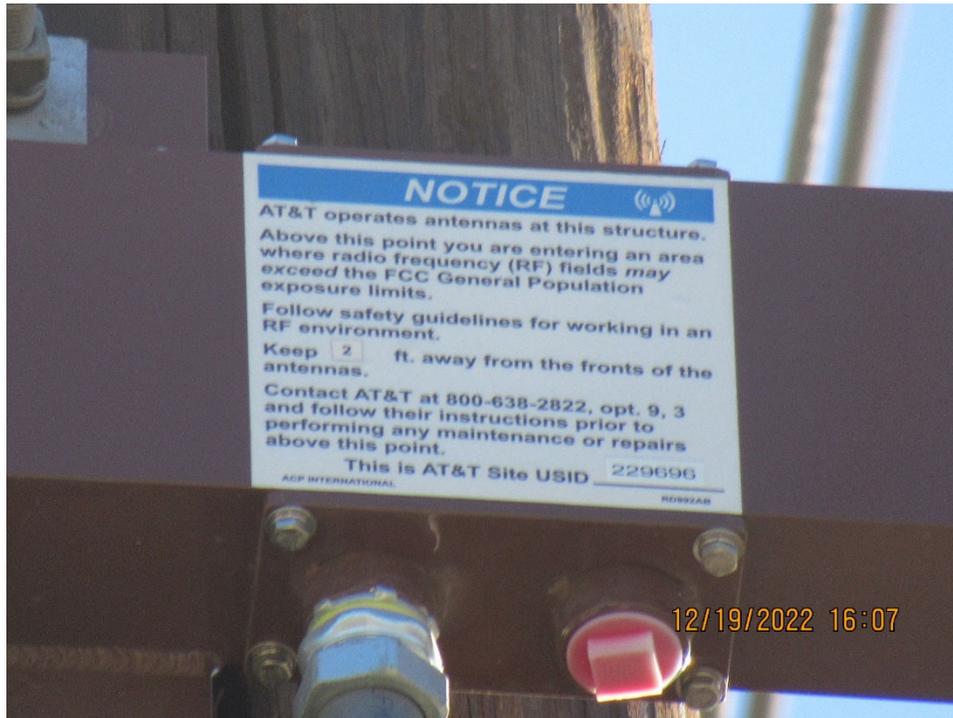
Site Overview 2



Pole Base, facing North



Pole Base, facing South



Existing Notice Signage Closeup



Existing Notice Signage Overview



AT&T Antenna Closeup, facing South



AT&T Antenna Closeup, facing North



AT&T Antenna Base, facing South



AT&T Antenna Base, facing North



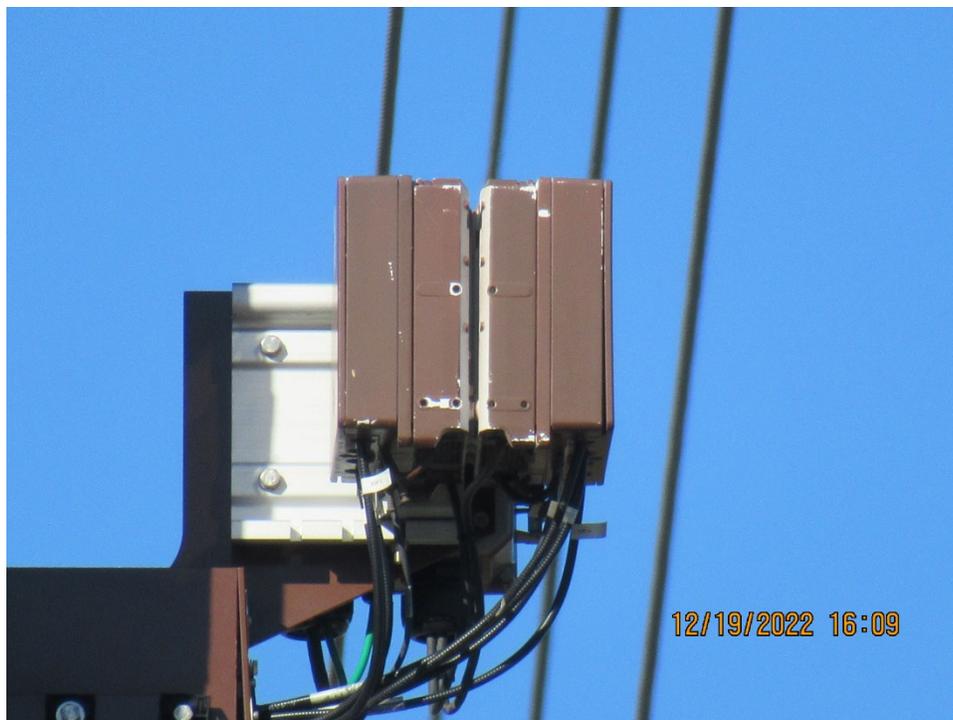
AT&T Antenna & Equipment, facing North



AT&T Antenna & Equipment, facing South



AT&T Equipment Closeup, facing South



AT&T Equipment Closeup, facing North

Analysis

A. Measurements

Centerline performed an RF exposure survey at the wireless telecommunications facility. Spatially averaged readings were taken in requested locations at ground level around the utility pole. Spatially averaged readings are the preferred method of measuring compliance as field strength varies based on the antenna height above the nearest walking surface. These readings measure exposure over the average height of a 6-foot person in order to account for this variation.

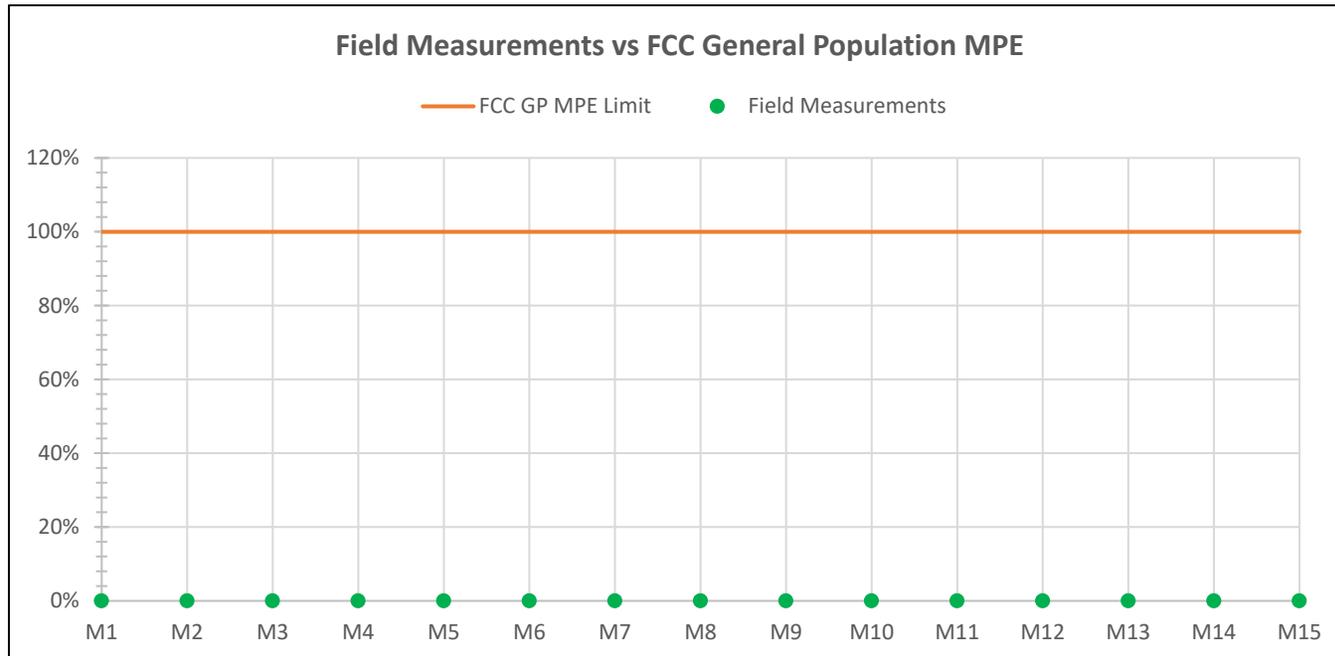
Measurements were performed with a calibrated WaveControl SMP2 meter and WPF60S broadband (1 MHz – 60 GHz) isotropic shaped frequency-response probe (calibration date: 1/6/22). The broadband meter/probe instrument measures the power density of any contributor in the RF environment up to 60 GHz. The power density for each measured frequency at each measurement location divided by the limit at each measured frequency provides a result in % MPE. The meter automatically sums the % MPE values from all contributors and provides a cumulative % MPE with respect to the FCC General Population MPE limit at each measurement point. Because exposure limits may differ for the various measured frequencies, it is more beneficial to report % MPE rather than power density (i.e., since power densities carry different “weight” based on frequency).

The table below lists all measurements along with the general location of each reading. A measurement map is also included below for reference. The maximum spatial average reading of RF exposure encountered at any measured location was **0.025 %** of the FCC General Population limit, which is **4000 times below the allowable limit**. In public areas, any measurement up to and including 100% General Population MPE is considered compliant, and the highest measurement was 4000 times less than this limit (i.e. compliant by a substantial margin).

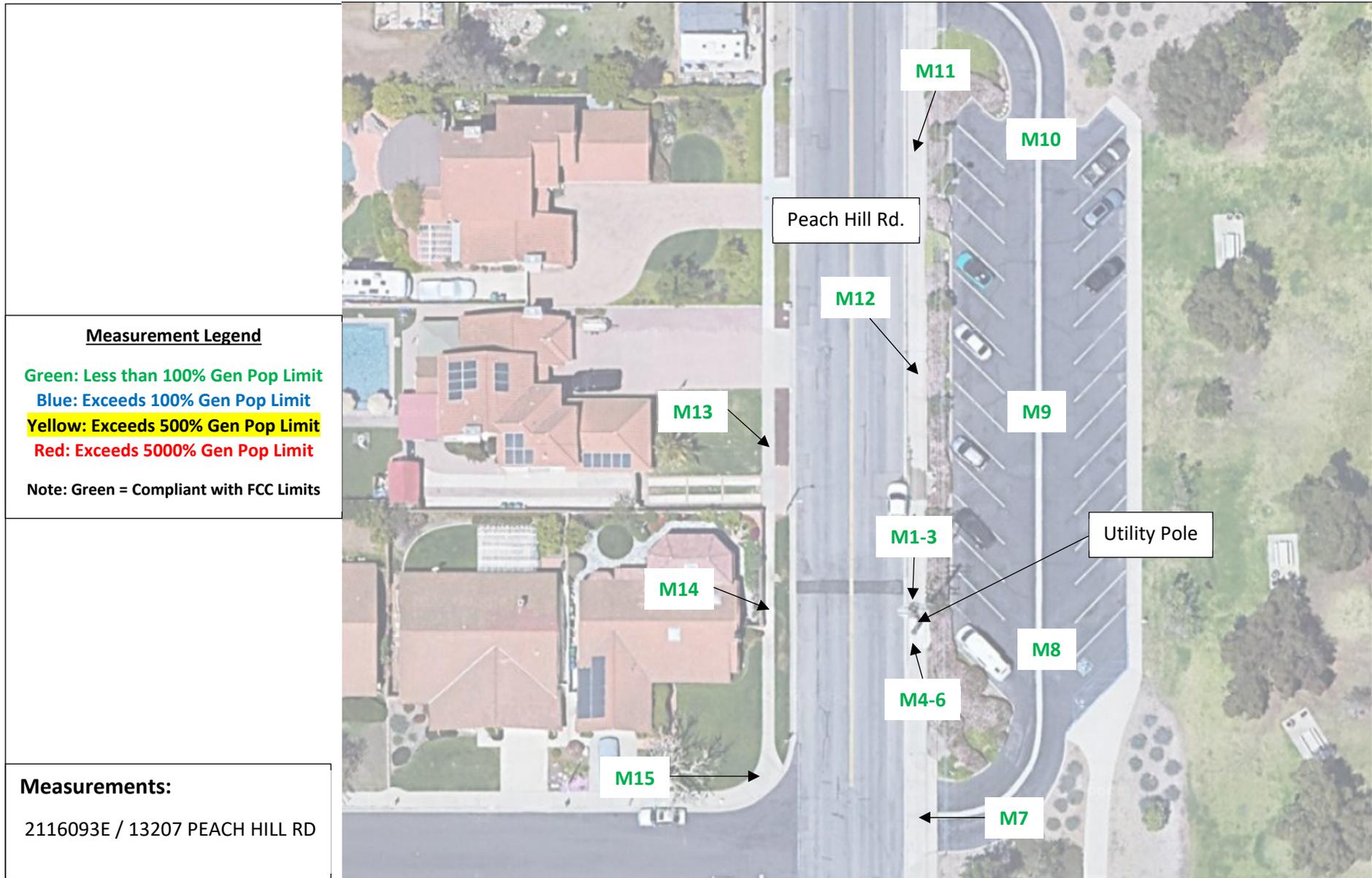
Loc #	Location Reference	% Gen Pop MPE
M1	Ground, 1' North of Antenna	0.018%
M2	Ground, 3' North of Antenna	0.021%
M3	Ground, 6' North of Antenna	0.011%
M4	Ground, 1' South of Antenna	0.018%
M5	Ground, 3' South of Antenna	0.025%
M6	Ground, 6' South of Antenna	0.021%
M7	Driveway, South of Pole	0.020%

M8	Parking Lot, South End	0.019%
M9	Parking Lot, Central	0.019%
M10	Parking Lot, North End	0.012%
M11	Sidewalk near North End of Parking Lot	0.018%
M12	Sidewalk near Center of Parking Lot	0.021%
M13	Sidewalk, West of Pole	0.019%
M14	Sidewalk, Southwest of Pole	0.022%
M15	Sidewalk Corner, Southwest of Pole	0.025%

The measurements are also depicted in chart form below to provide an illustration of how insignificant the measured levels are with respect to the FCC General Population MPE limit. The orange line at 100% depicts the FCC General Population compliance threshold. As shown, all recorded measurements are along the 0% line at the bottom of the chart, well below the 100% threshold.



B. Measurement Map



Compliance Statement

AT&T is compliant with FCC regulations. The exposure levels at all measured locations were substantially below the FCC General Population exposure limit.

APPENDIX A: Certifications

I, Katrina Styx, preparer of this report certify that I am fully trained and aware of the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I have been trained in the procedures and requirements outlined in AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document.

Katrina Styx

2/1/2023

I, Michael Fischer, reviewer and approver of this report certify that I am fully trained and aware of the Rules and Regulations of both the Federal Communications Commissions (FCC) and the Occupational Safety and Health Administration (OSHA) with regard to Human Exposure to Radio Frequency Radiation. I have been trained in the procedures and requirements outlined in AT&T's RF Exposure: Responsibilities, Procedures & Guidelines document.

Michael Fischer

2/1/2023