

February 23, 2016

**SUBJECT:** RF safety compliance of AT&T's microwave dish site located at 1140 N. Mathilda, Sunnyvale, CA 94089.

To Whom It May Concern:

Dtech Communications, LLC ("Dtech") has been retained by Salas O'Brien, contractors to AT&T, to determine whether its above referenced wireless communications facility complies with the Federal Communications Commission ("FCC") Radio Frequency ("RF") Safety Guidelines. The following summarizes our findings with regard to compliance with the FCC rules and regulations.

### **BACKGROUND**

The FCC states in 47 CFR § 1.1310 that the Maximum Permissible Exposure ("MPE") level from RF emission for the general population is between 0.2 and 1 milliWatts per centimeter squared ( $\text{mW}/\text{cm}^2$ ) depending upon the frequency (.03 – 100Ghz) of the transmitter. This is a measure of the RF power density at or below which there are no harmful effects for continuous exposure.

### **ANALYSIS**

Dtech engineers performed a computer-simulated analysis on February 23, 2016. The proposed site consists of one (1), ten-foot, dish antenna (Commscope/ UHX10-59K RF) mounted on a lattice tower at a centerline elevation of 55-feet above the ground level. The dish will operate at 6226.89 megahertz frequency band with input powers of 3.15 watts (35.0 dBm).

Microwave systems have very narrow beam patterns and are designed to operate in a line-of-site environment. Therefore, exposure levels observed for a person standing on the ground below the dish antenna are virtually zero.

At antenna elevation (in the air, directly in front of the antenna), the worse-case exposure level is predicted to be  $0.173 \text{ mW}/\text{cm}^2$  which is equivalent to 17.3% of the FCC's General Population MPE Limits.

## CONCLUSION

Based on our findings, it is the undersigned's professional opinion that AT&T's site will be compliant with the FCC's RF Safety Guidelines. The worse-case exposure level is predicted to be well below the FCC's General Population MPE Limits for continuous exposure. It is important to note that the FCC's MPE Limits are set at 50 times below the adverse-health-effect threshold according to scientific knowledge.

Please contact me should you require additional information.

Sincerely,



Darang Tech, P.E.  
CEO, Dtech Communications

