



FACTS ABOUT REQUIRED AUSTIN FIRE CODE COMPLIANCE REGARDING IN-BUILDING PUBLIC SAFETY RADIO COVERAGE *(as of 11/20/23)*

EMERGENCY RESPONDERS WITHIN THE CITY OF AUSTIN/TRAVIS COUNTY MUST BE ABLE TO COMMUNICATE BY WIRELESS DEVICES INSIDE BUILDINGS:

Modern construction methods and materials often cause blockage or degradation to the operation of wireless communication devices used by public safety agencies when their personnel respond to emergencies within certain types of buildings. To ensure that emergency responders can communicate by radio devices, the City of Austin requires that new buildings be constructed to meet the Fire Code requirements as stated in the National Fire Protection Association (NFPA) Publications 1221 (Section 9.6) and NFPA 72 (Sections 24.3.13 and 24.9). NFPA Codes and Standards web link: <http://www.nfpa.org/codes-and-standards>. Public safety radio communication systems are generally designed and built to penetrate lightly-constructed buildings. However, large heavy-constructed buildings often have “dead spots” which cannot be reached unless special radio signal amplification equipment is installed. To achieve Fire Code compliance, such in-building “signal boosters” (also known as “distributed antenna systems,” or “DAS”) will likely be needed (See Austin Fire Marshal contact information, below, to obtain assistance about compliance with the Fire Code.)

WHAT ARE RADIO “SIGNAL BOOSTERS” (OR “DISTRIBUTED ANTENNA SYSTEMS”)?

“Signal boosters” accomplish what their name implies – they amplify radio signals within certain frequency ranges that pass into and out of buildings, so that emergency responders can experience reliable wireless communication. The Federal Communications Commission defines a signal booster this way: “a device or system that automatically receives, amplifies, and retransmits signals from wireless stations into and out of building interiors, tunnels, shielded outdoor areas and other locations where these signals would otherwise be too weak for reliable communications.” There are required signal booster performance and back-up power requirements and standards that are set forth in the NFPA/Fire Code publications mentioned above. There are various engineering companies and manufacturers with expertise on how to achieve NFPA compliance, and commercially available products. Installed public safety frequency signal boosters should be registered with the Federal Communications Commission. (FCC regulations concerning “signal boosters” can be viewed at https://www.ecfr.gov/cgi-bin/text-idx?SID=71af92a77587610ce34ff415626b1d73&mc=true&node=se47.5.90_1219&rgn=div8. See contact information at end of document, for assistance available from the City of Austin Wireless Communication Services Division concerning FCC requirements and radio frequency, and radio donor site information).

IMPORTANT NOTE:

A Signal Booster/BDA/DAS operating on the frequencies listed below is NOT allowed to be operating on UPLINK until the scheduled interference test and permission granted from Wireless Communication Services Division. Uplink gain shall be reduced so that uplink power and/or uplink gain is at a minimal value. Antenna isolation shall be \geq Signal Booster Gain + 20 dB.

<u>TX Frequency</u>	<u>Rx Frequency</u>		<u>TX Frequency</u>	<u>Rx Frequency</u>
851.0375	806.0375		851.0625	806.0625
851.1625	806.1625		851.1375	806.1375
851.2875	806.2875		851.3125	806.3125
851.4125	806.4125		851.3875	806.3875
851.5625	806.5625		851.5875	806.5875
851.7125	806.7125		851.7375	806.7375
851.8125	806.8125		851.8375	806.8375
851.9250	806.9250		852.1625	807.1625
852.0875	807.0875		852.1875	807.1875
852.1125	807.1125		852.4125	807.4125
852.3125	807.3125		852.6375	807.6375
852.3375	807.3375		852.6875	807.6875
852.5750	807.5750		852.9500	807.9500
852.6000	807.6000		853.0500	808.0500
852.8250	807.8250		853.2750	808.2750
852.8500	807.8500		853.3250	808.3250
853.1000	808.1000		853.5500	808.5500
853.1250	808.1250		853.5750	808.5750
853.3625	808.3625		853.8250	808.8250
853.4250	808.4250		853.8500	808.8500
853.6250	808.6250		855.2375	810.2375
853.6875	808.6875			
853.8750	808.8750			
853.9500	808.9500			

CITY OF AUSTIN CONTACT INFORMATION:

Fire Marshal’s Office email: fireprevention@austintexas.gov

<https://www.austintexas.gov/department/afd-plans-review> for more information on submittals.

Wireless Communication Services Division: Chet Niederhofer, (512) 974-0909,

wcsdgaatrssignalboosterrequest@austintexas.gov

(Note: Constructors of new buildings outside of the Austin city limits should contact the respective Fire Marshal’s Office responsible for the geographic area where the building is to be constructed for guidance on procedures, standards, and needed permits related to public safety agency in-building radio coverage needs.)