

T Mobile Facility Specifications MUMC

Here are the specific RF outputs for this site.

T-mobile will be installing a total of 3 antennas, each facing 120 degrees apart. Each of these antennas have a 65 degree horizontal beamwidth and a 7 degree vertical beamwidth. The gain for each antenna is 16 dBd.

Each of these groups of antennas, referred to as sectors, will have 2 radios transmitting per sector for the time being, with a maximum of 12 radios per sector in the future. The power from each sector (at the antenna, including gain) for each radio will be approximately 226.67 watts, a little less than the 250 watts assumed in the EMF report provided earlier. So for now, the maximum combined power in each sector will be 453.34 watts (2720.04 watts for the future 12 radios), assuming complete constructive interference of all channels and continuous transmission at full power. In reality, only one radio per sector operates at full power continuously and the rest are discontinuous and not always transmitted at full power or in phase or on the same channel, so these calculations are assuming a worst case scenario.

The output at the antenna (per radio) is based upon the following link budget:

Output of amplifier at base station: 44 dBm (25 watts)

Gain of Antenna: 16 dBd

Cable and connector losses: 2.246 dB

Combiner losses: 4.2 dB

 Total output power at antenna = $44 + 16 - 2.246 - 4.2 = 53.554$ dBm = 226.67 watts

In this market T-Mobile is licensed by the FCC to operate in the PCS "C" Block of frequencies. T-Mobile transmits from the base station to the mobile phone at 1975 Mhz through 1990 Mhz and receives back from the mobile at 1895 MHz through 1910 MHz.

If there is anything else I can clarify, please let me know.

Thank you,

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