# 617-622, 663-668 MHz

# Special Temporary Authorization ("STA") Application

## Introduction

DISH's 600 MHz licenses will provide critical low-band coverage. Grant of this STA will deliver important public interest benefits. In particular, the STA will enable DISH to put to use certain spectrum licensed to Bluewater that is not yet deployed. The two Bluewater 600 MHz licenses for which DISH seeks STA are in the Denver, Colorado and Las Vegas, Nevada PEAs. DISH is headquartered in Denver, where DISH houses critical engineering personnel and lab equipment. And as publicly reported, DISH has designated Las Vegas as its first 5G launch market. As such, DISH's ability to meet its 5G buildout commitment can be enhanced with access to additional spectrum to support testing in these two markets.

In both Denver and Las Vegas, DISH holds the 600 MHz F and G blocks, providing contiguous blocks of paired 5x5 MHz licenses. However, DISH anticipates needing more low band spectrum in some markets to meet customer demand in the future. When and if additional 600 MHz spectrum becomes available, either when the Commission auctions unassigned spectrum or through future partnerships, DISH plans to use carrier aggregation at the market level to combine multiple 600 MHz assets to add capacity and improve data throughput speeds.

To realize this goal, DISH needs to conduct CA testing in a real-world environment using the specific radios and handsets developed by its vendors for its 5G broadband network. And to test 600 MHz CA, DISH requires *non-contiguous* spectrum blocks. Bluewater's A Block licenses in Denver and Las Vegas meet this need.

## Transmitter Information

Testing is expected to occur constantly up to 3 months. The network will consist of 25 base stations and up to 200 mobile devices transmitting in the range of 617-622, 663-668 MHz at the location defined in table 2.

*Table 1: Transmitter Information*

| | | Peak ERP | | | |
|---|---|---|---|---|---|
| **Type** | **Frequency (MHz)** | **dBm** | **dBW** | **W ERP** | **Emission BW** |
| Mobile | 663-668 | 27 | -3 | 0.5 | 5M007W7 |
| Fixed | 617-622 | 70 | 40 | 10,370 | 5M007W7 |

*Table 2: Base Transmitter Site Information*

| Site | County | Lat | Long | Azimuth | Elevation | Antenna Type |
|---|---|---|---|---|---|---|
| 4701 Cameron St, Las Vegas, NV 89103 | Clark | 36-6-17 N | 115-12-18 W | Omni (3-sector site) | below horizon | Omni |

## Point of Contact to Stop Transmission

Immediate request for Dish Wireless to stop transmission should be emailed to:

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