

CellTex Networks, LLC dba Zip Link
Statement in Support of Modification of Experimental License
Call Sign WI2XYI

CellTex Networks, LLC dba Zip Link (“Zip Link”) provides this statement pursuant to Section 5.63(c)(1) of the Commission’s Rules to support the proposed modification of its experimental license (Call Sign WI2XYI).

As described in the accompanying Form 442 and consistent with the objectives described in the application for the experimental license that the Commission granted, this application proposes the following modifications: (1) addition of a second 20-megahertz channel at five transmit locations, and (2) addition of one new location.

Zip Link has commenced its trial under the experimental license that was granted on July 5, 2017. Zip Link is operating from all five authorized locations using LTE-based equipment. Each location is authorized for a single 20-megahertz channel – the locations do not have sectors that operate on different frequencies.

During the trial, Zip Link has learned that its operations are resulting in self-interference. Zip Link believes that this is the result of better, non-line-of-sight propagation causing the signals to extend further, creating unexpected electrical interference. Zip Link believes that this problem can be alleviated by adding a second channel to each of the initial locations approved for the trial. The channels Zip Link has selected are intended to eliminate self-interference. Through this modification, Zip Link expects to gain valuable information on how to spectrum plan for future commercial deployments in the 3550-3650 MHz band.

Zip Link also proposes to add a location to its trial. Zip Link expects that the addition of this location will provide it with additional information to help plan its future network in the 3550-3700 MHz band, consistent with the objectives described in the exhibit accompanying the initial application. In addition, Zip Link wants to see how well channel re-use functions as a new location is added to the existing network, or whether a different channel plan will be necessitated to mitigate harmful interference and optimize network performance.

Deployment Parameters

The experimental trial proposes operation from the seven sites, which are identified on the application. Throughout the test Celltex will use various 20 megahertz channels with the signal oriented at specific azimuths. The chart below provides information requested in the Directional Antenna section of the form.

Location 1	
Coordinates	29-20-56N / 98-17-56W
Width of beam in degrees at the half power point	65° ± 2
Orientation in horizontal plane (degrees from True North)	30°, 120°, 210° and 300°
Orientation in vertical plane (degrees from horizontal)	-1° at 30° -2° at 120°, 210° and 300°

Location 2	
Coordinates	29-16-12N / 98-15-32W
Width of beam in degrees at the half power point	65° ± 2
Orientation in horizontal plane (degrees from True North)	90° and 270°
Orientation in vertical plane (degrees from horizontal)	-4° at all azimuths

Location 3	
Coordinates	29-11-22N / 98-06-22
Width of beam in degrees at the half power point	65 ° ± 2
Orientation in horizontal plane (degrees from True North)	5°, 95°, 185° and 275°
Orientation in vertical plane (degrees from horizontal)	-2° at 5°, 95° and 185° -4° at 275°

Location 4	
Coordinates	29-18-14N / 98-10-21W
Width of beam in degrees at the half power point	65° ± 2
Orientation in horizontal plane (degrees from True North)	0°, 90°, 180° and 270°
Orientation in vertical plane (degrees from horizontal)	-4° at all azimuths

Location 5	
Coordinates	29-07-37N / 98-08-13W
Width of beam in degrees at the half power point	$65^{\circ} \pm 2$
Orientation in horizontal plane (degrees from True North)	120° and 300°
Orientation in vertical plane (degrees from horizontal)	-3° for all sectors

Location 6	
Coordinates	29-20-53N / 98-03-40W
Width of beam in degrees at the half power point	$65^{\circ} \pm 2$
Orientation in horizontal plane (degrees from True North)	90° and 230°
Orientation in vertical plane (degrees from horizontal)	-1° at 90° -2° at 230°