



Subject: Engineering Report for Population Coverage Analysis

Client: Triad Holdings I, LLC

Market: BTA-134 Eureka, CA

Call Sign: KNLH758

Comp Comm Reference Id#: 01-06-006

Executive Summary

On behalf of Triad Holdings I, LLC ("Triad"), Comp Comm, Inc. ("Comp Comm") has prepared the attached Population Coverage Analysis for the Eureka, CA (BTA-134) Market. Triad is the licensee of the 10 MHz D block (1865 –1870 MHz and 1945 -1950 MHz) for this market. Accordingly, under Section 24.203 (b) of the Commission's Rules & Regulations, Triad must serve with a signal level sufficient to one quarter (25%) of the population in their licensed area within five years of being licensed, and this 1st Build Out Deadline will occur on April 28, 2002. **Comp Comm's analysis shows that the licensee's system covers 61,857 persons (out of a total of 142,578 persons¹) or 43% of the 1990 census tract population.**

System Configuration

Triad's system is a fixed wireless application utilizing equipment from Airspan Networks with a single base station ("CT") and fixed subscriber stations ("ST"). ST antennas are fixed high gain directional antennas (at various subscriber locations) directed back towards the CT antenna.

Propagation Analysis Tool and Terrain Data

Comp Comm's propagation analysis tool is based on Okumura-Hata together with EBU/CCIR terrain clearance angle methodology and has been widely accepted in the industry as well is in previous submissions to the FCC for over 15 years. The terrain data utilized for this analysis is the NGDC 3 Second Point Elevation Database.

Procedure Used in Population Coverage Analysis

The procedure used for Comp Comm's population coverage analysis involved the following four-step process:

1. Preparation of the **BTA-134 basemap** in ArcView 3.2a² importing 1990 census tract data from the ArcData Online website
2. Running the **propagation coverage study** based on applicable parameters, and importing the results into the ArcView basemap
3. **Coverage determination** on a per tract basis – including **digitizing** partially covered tracts to determine coverage fractions
4. Preparation of a spreadsheet to calculate
 - the persons covered on a per tract basis
 - the total persons covered and % population covered

¹ Census TIGER 1990 tract data has been utilized for this analysis.

² GIS software produced by ESRI

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Parameters

The parameters utilized in this analysis are from the following three sources:

1. Triad
2. FCC Registration #1015274 data³
3. Airspan Networks (the equipment manufacturer)

Specific parameters appear both on Attachments 1 and 3.

Usable signal power has been limited to **-98dBm or stronger** for the downlink (CT-antenna to ST-antenna) path as recommended by Airspan networks.

Conclusion

As depicted on Attachments 1 and 2, Comp Comm's analysis shows that the licensee's system covers 61,857 persons (out of a total of 142,578 persons) or 43% of the 1990 census tract population. Accordingly, the Commission's requirement for the provision of sufficient signal level to one quarter of the population in BTA-134 has been met.

By: /s/ John. T. Roussos

John T. Roussos
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12/11/01

Attachments

1. Population Coverage Analysis Map – with pertinent Counties and 1990 Census Tracts / Populations
2. Population Coverage Analysis XL Spreadsheet – with Fraction of Tract Covered and Persons Covered on a per tract basis, and coverage total
3. Parameters Printout for Propagation Study

³ The licensee's antenna does not exceed the authorized overall AGL of this registered tower.

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