□□ Start Here — Network Planning Guide

This book is for people designing and managing community mesh networks - coverage planning, RF propagation, node placement strategy, monitoring, and advanced configuration.

□□ What's Your Goal?

- **Planning coverage for a new area:** Start with Coverage Planning Tools Overview
- **Optimizing an existing network:** Start with Building a Mesh Network Dashboard
- **Placing new repeaters:** Start with Repeater Placement Principles

□□ What's In This Book

Coverage Planning

- Coverage Planning Tools Overview
- RF Coverage Prediction Tools - Heywhatsthat, Radio Mobile, etc.
- MeshMapper Wardriving Guide
- Field Testing and Coverage Verification

RF Propagation

- Urban Propagation
- Forest and Vegetation Propagation
- Mountain and Complex Terrain
- Water and Coastal Propagation
- Link Budget Calculations

- RF Propagation Planning Tools

Node Placement

- Repeater Placement Principles
- Coverage Radius Estimation by Terrain Type
- The Repeater Grid Approach for Urban Coverage
- Designing for Redundancy

Channel and Frequency Planning

- Frequency Coordination and Channel Planning
- Meshtastic Channel Number Selection Guide
- Operating Multiple Channels on One Network

Network Monitoring

- Building a Mesh Network Dashboard
- Using meshmap.net and Community Maps
- Mesh Network Capacity and Congestion

RF Tools

- Using an SDR for 915 MHz Band Analysis
- NanoVNA Guide for Mesh Antenna Work

➡ Related Books

- Antennas & RF - Antenna fundamentals and testing
- MeshCore Repeaters / Meshtastic Repeaters - Deploying nodes
- Starting a Community Mesh - Community and governance side

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