

☐☐ 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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