

Key Repeater Settings

These settings are most critical for deploying and maintaining MeshCore repeater and room server nodes.

AGC Reset Interval - Fix Receiver Deafness

```
set agc.reset.interval 4
```

Problem it solves: If a high-power transmitter (such as a nearby ham radio or commercial repeater) is within range, the LoRa receiver's automatic gain control (AGC) can be driven into a saturated state. After the nearby transmission ends, the AGC does not always recover correctly, leaving the MeshCore repeater effectively deaf to normal LoRa signals.

Symptom: The repeater was working, a nearby radio transmission occurred, and now the repeater is not hearing any nodes even though they are transmitting normally.

Fix: Setting `agc.reset.interval 4` forces the AGC to reset every 4 minutes, preventing permanent desensitization. Adjust the interval based on how frequently nearby interference occurs - lower values (e.g., 2) for sites with very frequent interference.

Flood Advertisement Interval

```
set flood.advert.interval 6
```

Controls how often the repeater broadcasts its presence. Lower values mean neighbors discover the repeater faster after power-on, but generate more radio traffic. 6 hours is a reasonable default for a fixed infrastructure node.

Path Hash Mode

```
set path.hash.mode 1
```

Sets the precision of route identifiers stored in packets:

- `0` - 1-byte hash: minimal overhead, higher chance of hash collision in large networks
- `1` - 2-byte hash: default; good balance for most deployments
- `2` - 3-byte hash: highest precision; use in very large networks where collisions are observed

Packet Repeat (Room Server)

```
set repeat on
```

On room server firmware, this enables the node to also act as a packet repeater in addition to its store-and-forward function. Only enable if the room server has good placement; a poorly-placed room server acting as a repeater can cause more harm than good to routing.

TX Power

```
config set tx_power 20
```

Maximum legal power depends on your region and license class. In the US, 30 dBm (1 W) is the Part 97 limit for spread-spectrum on most bands. More power is not always better - an overdriven signal can desensitize nearby receivers including your own.

Region Configuration

```
region put us
region put us-co us
region save
```

Region scopes control which nodes can see and communicate through this repeater. The hierarchical scheme (`us` > `us-co`) allows regional segmentation in large deployments.

Name and Location

```
set name MyRepeater-Site1
set lat 39.7392
set lon -104.9903
```

Always set a meaningful name and accurate coordinates for infrastructure nodes. This allows map tools (flasher.meshcore.io) to display the repeater correctly and helps operators diagnose coverage

gaps.

Revision #2

Created 2026-05-03 03:00:20 UTC by Mesh America Admin

Updated 2026-05-03 12:35:19 UTC by Mesh America Admin