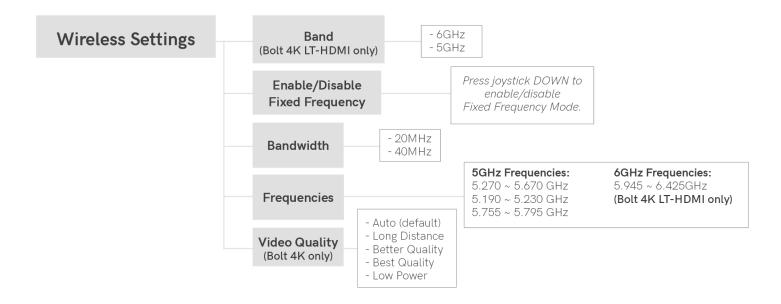


Wireless Configuration

Bolt 4K contains several wireless configuration options that allow the system to work at its best in different environments. The system is designed to work adequately using its default, automatic settings, but they may not be ideal for all situations. This section details all available wireless configuration options for the transmitter and receiver.



Wireless Settings

Band (Bolt 4K LT-HDMI only)

The Band menu lets you select either **5GHz** or **6GHz**, frequency bands. The 5GHz frequency allows for higher total output power and backward compatibility with Bolt 4K LT-HDMI devices but is more likely to experience interference from other wireless devices (Wifi routers, cell phones, IoT devices, and other wireless video systems), resulting in frequent interference and video dropouts.

The 6GHz (U-NII-5) band is virtually vacant compared to the 5GHz band, and although the allowed output power is lower, it should offer better connection stability with fewer interruptions. 6GHz frequency is currently available in the US and Canada, with more countries opening the 6GHz frequency in 2023. For all available frequencies, refer to the **FREQUENCIES BY REGION** chart.

Enable Broadcast Mode (Bolt 4K MAX units only)

Enabling Broadcast Mode improves the system's maximum transmission range by allowing Bolt MAX systems to operate without any back-channel communication between the receiver and transmitter and reduces any interference.

Broadcast Mode Disabled (Standard Multicast Mode) - Transmitter and connected receiver(s)
coordinate and maintain two-way communication with each other to optimize frequency usage and
video transmission.

Wireless Configuration Page 1

• **Broadcast Mode Enabled** - This allows the transmitter to connect to an unlimited number of receivers, as long as they have already been paired. To achieve even better range performance, attach the receiver to your Bolt Panel Antenna while in Broadcast Mode.

NOTE: Bolt 4K XT/LT 750 and 1500 receivers will not link to a Bolt 4K XT/LT MAX transmitter in Broadcast Mode, even if they were previously paired. You must use a Bolt 4K MAX receiver. Otherwise, the receiver's OLED will display **Broadcast Not Supported**.

Enable Fixed Frequency

Fixed Frequency Mode bypasses any automatic frequency switching logic, allowing your Bolt 4K system to always attempt to connect on a specified frequency. Once a frequency is selected, the transmitter will only use that frequency. This allows the transmitter to link/reconnect to the receiver much faster. After enabling Fixed Frequency mode, navigate to **Frequencies** and select a frequency within the selected wireless region (non-DFS frequencies only). For best results, ensure that both the transmitter and receiver have **Fixed Frequency Mode** enabled, and use the **Spectrum Analyzer** (on the receiver's front panel or the Bolt app) to search for the least congested frequency to use.

- **Fixed Frequency Mode Disabled** Bolt 4K scans all available frequencies and repeatedly switches from one frequency to the next during transmission.
- Fixed Frequency Mode Enabled Bolt 4K connects to one specific frequency.

NOTE: By default, Bolt 4K will select the lowest available frequency from the Frequencies list if one has not been selected beforehand.

Select Bandwidth

The Bandwidth menu lets you choose between 40MHz (default) and 20MHz operating modes. Ensure that both the transmitter and receiver are set to the same bandwidth with a resolution of up to 1080p60. For all available frequencies, refer to the **FREQUENCIES BY REGION** chart.

- **20MHz** Reduces the amount of bandwidth by half, effectively doubling the number of usable frequencies while decreasing interference.
- **40MHz** (*Default*) Increases the amount of bandwidth by bonding two 20MHz frequencies, allowing for faster transfer rates but increased interference.

NOTE: 20MHz mode supports HD/3G resolutions up to 1080p60. Resolutions up to 4k30 are also supported but downscaled to 1080p before transmission (4k50/59/60 is not supported).

Select Frequency

The Frequencies menu contains a list of all available frequencies. Bolt 4K will automatically select an operating frequency when multiple values are selected. If both the transmitter and receiver have **Fixed Frequency Mode** enabled, you can only select one frequency for Bolt 4K to use. Frequencies marked

Wireless Configuration Page 2

TERADEK Teradek User Manual

with (DFS) must be scanned for one minute before they can be used, but are typically less crowded. For all available frequencies, refer to the **FREQUENCIES BY REGION** chart.

Video Quality (Bolt 4K XT/LT Transmitters only)

The Video Quality menu lets you adjust the balance between your signal's maximum range and quality according to the number of antennas used to transmit fine information. Bolt 4K has three picture quality levels that vary based on the lowest quality link or the furthest receiver.

- **Auto Mode** (*Default*) Transmitter automatically determines how many fine antennas are needed based on the range and signal quality.
- Longer Distance Mode (One fine antenna) Maintains the maximum range in situations where other sources of interference might be present, but will slightly reduce your video signal's maximum quality.
- **Better Quality Mode** (*Two fine antennas*) Maintains higher signal quality but reduces the maximum range.
- Best Quality Mode (Bolt 4K XT only) (Three fine antennas) Ideal for complex, high contrast scenes that require the highest possible quality.
- Low Power Mode (Bolt 4K XT only) (One fine antenna with shorter range) Reduces the transmitter's total power.

Wireless Configuration Page 3