Step 1. Installation - TX module

The TX module includes one pair of video/audio drop cables to connect our video and audio source equipment, such as a camera and microphone, and one pair of video/audio out drop cables to connect a recorder or monitor system.

1. Screw an antenna onto the connector on the back of the back of the TX module.

2. Locate the TX module close enough to your video and audio sources to connect to them. Use appropriate fasteners to anchor the TX module to the mounting surface.

3. Connect a video/audio BNC extension cable (not provided) to the Video In and Audio In drop cables of the TX module and to your video source (camera) and microphone.

4. Connect Video Out and Audio Out drop cables of the TX module and to a local monitor and/or speaker if needed. This interface can be used to help setup your camera and/or microphone.

Step 2. Installation - RX module

The RX module includes two pair of video/audio out drop cables to connect two types of receivers, such as a recorder or monitor system.

1. Screw an antenna onto the connector on the back of the back of the RX module.

2. Locate the RX module close enough to your video and audio recorder to connect to them. Use appropriate fasteners to anchor the RX module to the mounting surface.

3. Connect a video/audio BNC extension cable (not provided) to a pair the Video Out and Audio Out drop cables of the RX module and to your video/audio recorder equipment.

4. Connect Video Out and Audio Out drop cables of the RX module and to a local monitor and/or speaker if needed. This interface can be used to help setup your camera and/or microphone.

Step 3. Synchronizing the TX and RX modules

The TX and RX modules of each DVL24-WR product are factory configured to synchronize only with each other. Effective synchronization is achieved when the video and audio carried through the system can be seen at the A/V recording or monitoring equipment connected to the RX (receiver) module.
Synchronization of a single TX / RX module pair occurs automatically after the TX and RX modules are powered on. If synchronization is lost, it can be re-established by powering off, then powering on one or both of the modules. After powering off either module, wait 10 seconds before powering it on again.

To automatically synchronize a TX and RX module pair:

1. Plug the 12 Vdc power adapter for the TX module into a standard 120 Vac outlet.
2. Plug the 12 Vdc power adapter for the RX module into a standard 120 Vac outlet.
3. Verify that you can see video and hear audio from your video/audio source equipment (transmitter) at your video recorder. The synchronization process may take several seconds to complete after the TX and RX modules are powered on.

**Multiple TX/RX systems**

When setting up multiple DVL24-WR systems in the same vicinity, observe the following guidelines:

- Place RX modules at least 1 ft apart.
- Power on each DVL24-WR TX and RX module pair one at a time and allow the pair to synchronize as described above before powering on another DVL24-WR module pair.

**NOTE**

If multiple DVL24-WR systems are setup in the same vicinity and pairing is lost between one or more TX/RX module pairs, power off the modules of the pairs that failed, then power on each pair one at a time and allow it to synchronize before powering on another pair.

**Troubleshooting**

<table>
<thead>
<tr>
<th>Problem</th>
<th>Possible Solutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>No video or audio</td>
<td>- Check power and A/V cable connections.</td>
</tr>
<tr>
<td></td>
<td>- Verify that the TX and RX module are powered on.</td>
</tr>
<tr>
<td></td>
<td>- Verify that video and audio source signals are applied to the TX module.</td>
</tr>
<tr>
<td></td>
<td>- Verify that the recording/video monitoring equipment is functioning properly.</td>
</tr>
<tr>
<td>Interference in video</td>
<td>- Adjust the orientation of the antennas on the TX and RX modules.</td>
</tr>
<tr>
<td></td>
<td>- Move the equipment away from devices that emit high radiation, such as microwave ovens, wireless phones, etc.</td>
</tr>
</tbody>
</table>

**Specifications - system**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission channels</td>
<td>80 channels, auto selected</td>
</tr>
<tr>
<td>Video bit rate</td>
<td>Up to 12 Mbps</td>
</tr>
<tr>
<td>ID codes</td>
<td>Up to 4 M</td>
</tr>
<tr>
<td>Video resolution</td>
<td>720 x 480 @ 30 fps (NTSC)</td>
</tr>
<tr>
<td>Operational range</td>
<td>Dependent on installation environment</td>
</tr>
</tbody>
</table>

**Specifications - Transmitter module**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating frequency</td>
<td>2.4000 GHz – 2.4835 GHz</td>
</tr>
<tr>
<td>Transmit power</td>
<td>100 mW (maximum)</td>
</tr>
<tr>
<td>Modulation</td>
<td>16 QAM / QPSK / BPSK</td>
</tr>
<tr>
<td>Video input level</td>
<td>1 ± 0.2 Vp-p @ 75 Ω</td>
</tr>
<tr>
<td>Audio input level</td>
<td>1 ± 0.2 Vp-p @ 600 Ω</td>
</tr>
<tr>
<td>Antenna</td>
<td>Omnidirectional</td>
</tr>
<tr>
<td>Power consumption</td>
<td>1.9 W</td>
</tr>
<tr>
<td>Power adapter</td>
<td>12 Vdc / 1A</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>6.28&quot; x 5.37&quot; x 1.37&quot; (159.5 mm x 136.4 mm x 34.8 mm) without antenna and drop cable</td>
</tr>
<tr>
<td>Weight</td>
<td>19 oz (538 g)</td>
</tr>
</tbody>
</table>

**Specifications - Receiver module**

<table>
<thead>
<tr>
<th>Item</th>
<th>Specification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Operating frequency</td>
<td>2.4000 GHz – 2.4835 GHz</td>
</tr>
<tr>
<td>Receiver sensitivity</td>
<td>-85 dBm minimum</td>
</tr>
<tr>
<td>Video output level</td>
<td>1 ± 0.2 Vp-p @ 75 Ω</td>
</tr>
<tr>
<td>Audio output level</td>
<td>1 ± 0.2 Vp-p @ 600 Ω</td>
</tr>
<tr>
<td>Antenna</td>
<td>Omnidirectional</td>
</tr>
<tr>
<td>Power consumption</td>
<td>1.9 W</td>
</tr>
<tr>
<td>Power adapter</td>
<td>12 Vdc / 1A</td>
</tr>
<tr>
<td>Dimensions (W x D x H)</td>
<td>6.28&quot; x 5.37&quot; x 1.37&quot; (159.5 mm x 136.4 mm x 34.8 mm) without antenna and drop cable</td>
</tr>
<tr>
<td>Weight</td>
<td>19 oz (538 g)</td>
</tr>
</tbody>
</table>

For product support, please contact your distributor.