

LWL8CUNBAL support eight channel uni-directional un-balanced audio 16-bit digitally encoded broadcast quality over one multi-mode or single-mode optical fiber. These fiber optic transmitter and fiber optic receiver are typically used in applications for Rental, Staging, Theater, Stadiums, Theme Parks, Broadcast/Studio, CCTV audio and Professional AV applications, etc. and are available for stand-alone or rack-mount installations. FC, ST or SC optical connectors are optional.

Plug and Play design ensures adjustment-free installation and operation, and optical adjustments are never required. LED indicators are provided to instantly monitor the system operating status.



### Specifications

#### Optical:

|                   |                                                            |
|-------------------|------------------------------------------------------------|
| Wavelength        | 1310 nm & 1470 nm~1610 nm                                  |
| Output Power      | -10~ -5 dBm / -5~0 dBm                                     |
| Optic fiber       | 50/125u multimode, 62.5/125u multimode, 9/125u single mode |
| Rx sensitivity    | -25 dBm                                                    |
| Optical connector | FC or ST or SC (optional on request)                       |
| Distance          | 0~500 m (MM) / 0~20 km (SM)                                |

#### Un-Balanced Audio

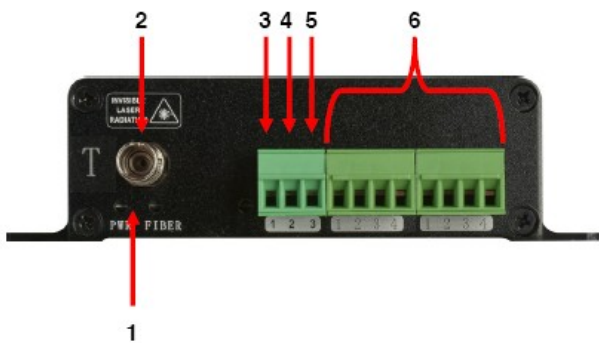
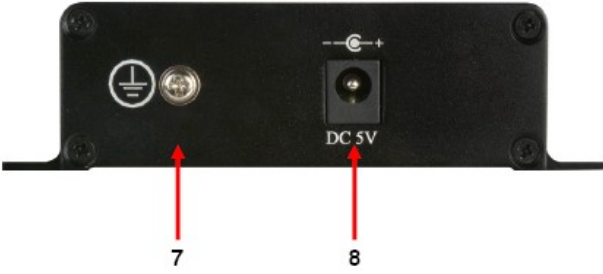
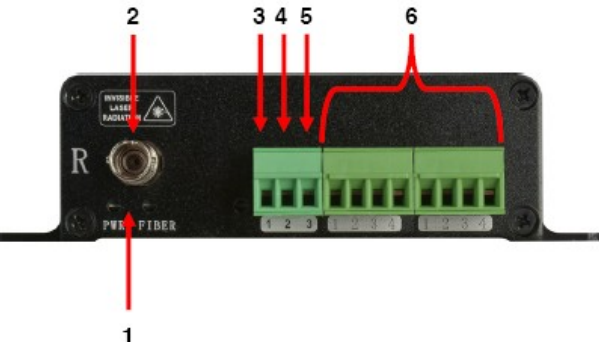
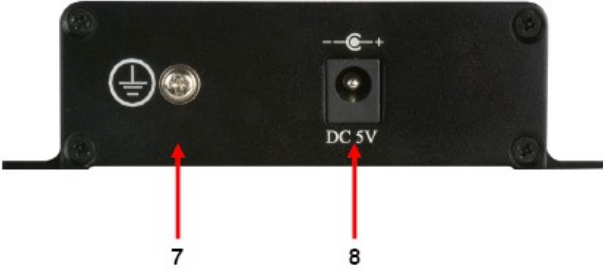
|                               |                                                     |
|-------------------------------|-----------------------------------------------------|
| Number of Channels            | 8 Input + 8 Output                                  |
| Input Connector               | 1x Phoenix 3pin (female) + 2x Phoenix 4pin (female) |
| Output Connector              | 1x Phoenix 3pin (female) + 2x Phoenix 4pin (female) |
| Input / Output Impedance      | 10 kOhm / 50 Ohm                                    |
| Input capacitance LINE inputs | 10 pF                                               |
| Max input/output voltage      | 3.0 Vp-p                                            |
| Frequency Response            | 10 Hz~24 kHz @ ±3 dB                                |
| Sample Rates From             | 48 kHz                                              |
| SNR                           | > 80 dB                                             |

#### Electrical & Mechanical

|                           |                                   |
|---------------------------|-----------------------------------|
| Input Power Requirements: | DC 5 V @ 2 A                      |
| Power Adapter:            | AC 90 V~240 V                     |
| Power Consumption:        | < 3 W                             |
| Dimensions:               | 104 mm × 104 mm × 28 mm           |
| Weight:                   | 400 g Transmitter & Receiver each |

#### Environmental

|                        |                           |
|------------------------|---------------------------|
| Operating Temperature: | -20°C ~ +75°C             |
| Storage Temperature:   | -40°C ~ +85°C             |
| Relative Humidity:     | 0% ~ 95% (non-condensing) |
| MTBF:                  | > 100,000 hours           |

| Transmitter                                                                                                                                                                                                                                                                                             |                                                                                      |
|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
|                                                                                                                                                                                                                        |    |
| <p>1: Status LED<br/> 2: Fiber Input<br/> 3: Phoenix Connector A Pin1 = NC<br/> 4: Phoenix Connector A Pin2 = NC<br/> 5: Phoenix Connector A Pin3 = Common Audio Ground<br/> 6: Phoenix Connector B Pin1 ... 4 = Audio input 1 ... 4<br/> 7: Phoenix Connector C Pin1 ... 4 = Audio input 5 ... 8</p>   | <p>7: Chassis Ground (screw)<br/> 8: DC Power Input 5 V DC (5,5 x 2,5 Jack)</p>      |
| Receiver                                                                                                                                                                                                                                                                                                |                                                                                      |
|                                                                                                                                                                                                                       |  |
| <p>1: Status LED<br/> 2: Fiber Input<br/> 3: Phoenix Connector A Pin1 = NC<br/> 4: Phoenix Connector A Pin2 = NC<br/> 5: Phoenix Connector A Pin3 = Common Audio Ground<br/> 6: Phoenix Connector B Pin1 ... 4 = Audio output 1 ... 4<br/> 7: Phoenix Connector C Pin1 ... 4 = Audio output 5 ... 8</p> | <p>7: Chassis Ground (screw)<br/> 8: DC Power Input 5 V DC (5,5 x 2,5 Jack)</p>      |

### Set Up Instructions

1. Secure the units in a safe location, where they will not be subject to impact and where there is room around the unit so nothing will interfere with the fiber optic cabling causing it to bend sharply in a tight radius in any way that can severely affect the signal transfer.
2. Carefully connect your source(s) to the transmitter input(s) and the receiver unit output(s) to your receiving device input(s) using the RCA connectors on the transmitter and on the receiver unit, 3. Please note that all audio on the transmitter (Tx) and receiver (Rx) must be line level.
3. CLEAN\* the ST fiber optical cable contacts that will be used for connecting the Tx and Rx units and attach the fiber cable to the ST connections and secure, as you would secure a bayonet BNC.  
While pressing lightly in on the connector, twist it in a clockwise direction about 1/8 to 1/4 of a turn and then release. The connector should stay inserted and have backwards spring pressure holding the bayonet in place.
4. Connect the included power supplies to the transmitter & receiver units, and plug them both into an AC power source (100v-240v AC 50/60Hz).

\* CLEAN: All fiber optical cable contacts (the end that is inserted and makes contact to enable lightwave transmission through the fiber) require cleaning each time before inserting into a device's outputs or inputs. Failure to clean the contacts can damage the unit's optics over time and also render the cable and the device permanently useless. Use cleaning kits designed specifically for fiber optics. Other cleaners may add contaminants not seen by the naked eye which could damage cables and/or equipment.