QUESTTEL
Broadcast Systems

1 Channel VGA Over Fiber Transmitter and Receiver Extender

User Manual

L-1VGA-FE

Intended Audience

This user manual has been written to help people who have to use, to integrate and to install the product. Some chapters require some prerequisite knowledge in electronics and especially in broadcast technologies and standards.

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Chapter 1 Introduction

The QuestTel L-1VGA-FE Fiber Optic Transmitter and Receiver provides long haul transmission of high resolution VGA and Audio control signals over a single fiber up to 20km. Engineered for reliability and exceptional high resolution image performance, it uses QuestTel technology to deliver perfect pixel-for-pixel transmission of computer-video images up to 1920x1080@60Hz resolution. The compact, low profile enclosure of the L-1VGA-FE allows for discreet installation. It can be used for simple point-to-point applications or handle the most challenging AV system designs, from a simple conference room to an enterprise-wide fiber optic distribution system.
The L-1VGA-FE Transmitter and Receiver is ideal for a wide range of applications requiring long distance transmission of high resolution content with the highest quality. Because transmission of content is inherently secure and immune to outside interference, fiber applications are favored in government, military, and medical environments. The transmitter features industry standard SC-type Optical Connector.

QuestTel L-1VGA-FE supports multimode and singlemode transmission. Singlemode fiber offers long-range transmission capability over extreme distances of up to 20 km (12 miles). It is used in very large facilities such as airports, stadiums, live broadcast signal transmission, remote studio, universal digital video transmission business, telecommunication signal transmission business, airport or transportation hubs as well as connecting over very long distances between facilities such as college campuses.

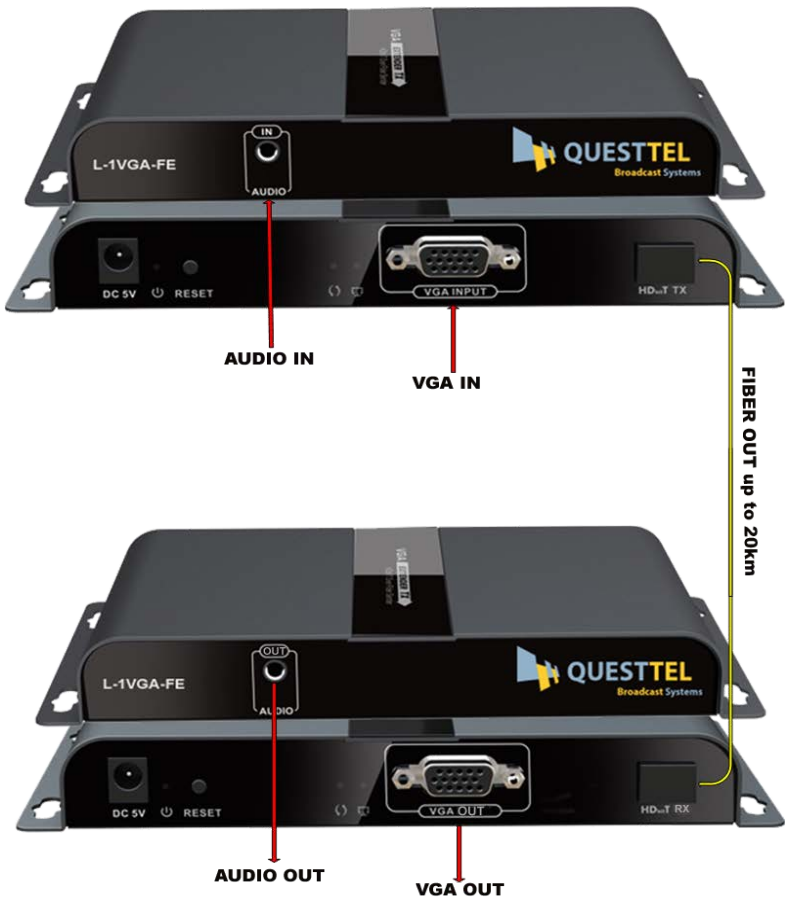
1.2 Key features

- **Extend VGA and analog audio over single mode optic fiber cable**
- **Supports resolutions up to 1920x1080@60Hz**
- **Transmit VGA signal up to 20km**
- **Support RGBHV input**
- **Support 3.5mm audio jack**
- **Immune the electromagnetic interference in environment**
- **Alarm notification for fiber link loss**

1.3 Tech Specification

VGA Signal Format	RGBHV
VGA Resistance	75 Ω
Support Resolution	1920x1080@60Hz, 1680x1050@60Hz, 1440x900@60Hz, 1360x768@60Hz, 1280x1024@60Hz, 1280x960@60Hz, 1280x720@60Hz, 1024x768@60Hz, 800x60Hz
Transmission Distance	up to 20km (12 miles)
Optical Connector	SC
Audio	3.5mm audio jack
Optical Wavelength	1310nm
Transmission Distance	500m for multimode 20km for single mode
Working Temperature	0°C~60°C
Power Supply	DC5V/2A *2pcs
Enclosure Material	Aluminum alloy
Product Dimension	177.5x99x23mm *2pcs
Color	Black
Package Contens	VGA Extender TX 1pcs / VGA Extender RX 1pcs / DC 5V 2A 2pcs 3.5mm audio cable

1.4 Application Drawing



Safety Instructions

Read before operating equipment.

1. Cleaning - Unplug this product from the wall outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.
2. Power Sources - Use supplied or equivalent UL/CSA approved low voltage DC plug-in transformer.
3. Outdoor Antenna Grounding - If you connect an outside antenna or cable system to the product, be sure the antenna or cable system is grounded so as to provide some protection against voltage surges and built-up static charges. Section 810 of the National Electrical Code, ANSI/NFPA No. 70, provides information with respect to proper grounding of the mast and supporting structure, grounding of the lead-in wire to an antenna discharge unit, size of grounding conductors, location of antenna discharge unit, connection to grounding electrodes, and requirements for the grounding electrode.
4. Lightning - Avoid installation or reconfiguration of wiring during lightning activity.
5. Power Lines - Do not locate an outside antenna system near overhead power lines or other electric light or power circuits or where it can fall into such power lines or circuits. When installing an outside antenna system, refrain from touching such power lines or circuits, as contact with them might be fatal.
6. Overloading - Do not overload wall outlets and extension cords as this can result in a risk of fire or electric shock.
7. Object and Liquid Entry - Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short out parts, resulting in a fire or electric shock. Never spill liquid of any kind on the product.
8. Servicing - Do not attempt to service this product yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.
9. Damage Requiring Service - Unplug this product from the wall outlet and refer servicing to qualified service personnel under the following conditions:
- When the power supply cord or plug is damaged.
- If liquid spills or objects fall into the product.
- If the product is exposed to rain or water.
- If the product does not operate normally by following the operating instructions. Adjust only those controls that are covered by the operating instructions. An improper adjustment of other controls may result in damage and will often require extensive work by a qualified technician to restore the product to its normal operation.
- If the video product is dropped or the cabinet is damaged.
- When the video product exhibits a distinct change in performance, this indicates a need for service.