UNLEASH THE SOUND

Setting the standard for professional wireless audio

SHEERLINK™

PRODUCT SOLUTION FOR
LIVE EVENT AND STUDIO

RTX Sheerlink™ solutions for live event and studio provide superior audio quality and low latency for wireless music equipment to accommodate flexibility, performance, and portability.

PRODUCT SHEET

Version no. 002

WIRELESS MADE FOR LIVE EVENT AND STUDIO

Pro audio products operate in a dynamic market with increasing competition between professional and home use. For instance, with the permanent shift to smaller private studio setups, the home studio segment is now responsible for more than half of total studio production revenue, and the numbers are climbing, thus fueling a high-growth market for pro audio hardware and software. We offer you the chance to extend and get ahead in this market with your wireless products.

Flexibility, performance, and portability are needed whether you are on a stage, on the go, or in a studio. With the wireless Sheerlink product solution, multiple options are available: from a simple point-to-point device setup with one way audio to multi device setups and two-way audio. All supporting high-definition audio with low latency suitable for systems including monitoring functionality e.g., IEM.

Standard solutions currently support from one to four TX units. However, with the RTX unique radio synchronization solution, systems can potentially be combined without the risk of them disturbing each other or take a step onto the next Sheerlink evolution introducing even more channel support.

We are going to great lengths to ensure the Sheerlink solution for live event and studio usage is staying ahead of competition - not just through research, vigorous lab tests, and multiple patents, but also ensuring that you are enabled to combine your own product customization with our solution.

TIME TO EXTEND YOUR BUSINESS

With the extensive roadmap offered, including large multichannel systems and other radio options, your product portfolio is heading for a bright future with Sheerlink. If in doubt, our offering allows for fast proof of concept and prototyping, thus getting onto market as planned, and minimizing your investment and risk level.

CREATE THE RIGHT PRODUCT

It is rarely a single feature that makes the difference but more often it is the interaction and configurability of features. Determining on just the right combination requires focus - a focus, we at RTX always have and prioritize in the cooperation with you as our customer.

DIGITAL OR ANALOG INTEGRATION

Integrating with different instruments and other equipment calls for different options for signal integration. With the Sheerlink solution, you are free to pick from our recommended designs, or you can add your own interfaces whether it be a custom digital signal processing or a custom analog circuitry.

MULTI DEVICE USAGE AND SEAMLESS SWITCHING

Independent of how many active devices / audio channels a receiver supports, multiple devices can be paired with the receiver allowing selection of the active device(s). For instance, this comes in handy when having multiple instruments or microphones on a one channel receiver supporting only one active instrument or microphone at a time.

CONTROL AND MONITORING

An extensive interface for control and monitoring of audio levels, filter characteristics, battery level, etc. is available, allowing both local and remote control of devices, thus providing the option of centrally controlling the complete wireless setup for improved usage and integration with customer app or third-party equipment. An auxiliary data channel, coexisting alongside the audio channel allows for your proprietary data for e.g., additional control or audio meta data.

LOW POWER CONSUMPTION

Low power consumption is key for portable devices and our basic systems can go as low as 30mA in full operation mode. Often it is the desired output power of the radio and the chosen DAC / ADC that sets the limits for power consumption during operation, but we provide different designs to choose from depending on the desired product.

OPTIMIZE THE WIRELESS PRODUCT EXPERIENCE

Interference from other radio devices is an ever-existing threat. To mitigate effects of interference e.g., audio dropouts. Especially in the popular 2.4GHz ISM band, the solution provides multiple counter measures, including controls allowing you to have your product adapt to a given environment, securing the user experience with priority on your key parameters.

TECHNOLOGY AGNOSTIC INTERFACES

No matter what radio technology is used; you will have the same software interface to work with. This reduces the need to have in-depth knowledge of a given radio technology and allows portability of implemented applications. All of this provides the possibility for short product cycles and seamless product portfolio expansions.

TECHNICAL SPECIFICATIONS

SUPPORTED COMPLIANCE	SPECIFICATIONS
1.9GHZ: INCLUDING BUT NOT LIMITED TO EU, US, AND JAPAN STANDARDS. 2.4GHZ: WORLDWIDE	Please refer to the datasheets on the RTX1090 and RTX1290 communication modules, respectively.

FEATURES	SPECIFICATIONS
RADIO	1.9GHz or 2.4GHz
OPERATION RANGE	20-300+ meters depending on the design and environment.
OPERATION TIME	Ranging from 5 hrs. to 20+ hrs. using 3.6 V 1000 mAh battery depending on the chosen design.
DIGITAL AUDIO INTERFACE	24-bit, 48kHz
LATENCY (ANALOG TO ANALOG)	From 2 milliseconds depending on the chosen radio and configuration.
CODEC	Sheersound™ 48kHz. Please refer to the product sheet on Sheersound.
SNR	>85dB is achievable depending upon the chosen analog / digital design.
DYNAMIC RANGE	>120dB is achievable depending upon the chosen analog / digital design.
THD	Better than -123dB is achievable depending upon the chosen analog / digital design.
FREQUENCY RESPONSE	10Hz – 22kHz depending upon the chosen analog / digital design.
FILTERING	Optional filters can be programmed to e.g., simulate cable characteristics.

ORDERING DETAILS	DESCRIPTION
SHEERLINK PRODUCT SOLUTION	Contact RTX for more information and offer at sales@rtx.dk