



STUDIO TRANSMITTER LINK SOLUTION

Streamit's Studio Transmitter Link solution makes it a lot easier for radio stations to transmit their programs to FM transmitters and cable head-ends. By using standard Internet technology, the setup and configuration of an STL connection is fast and easy. The Ogg Vorbis audio codec provides excellent audio quality at lower bitrates.

Advantages:

1. High quality audio
2. Uses standard Internet connections
3. Easy installation and configuration
4. Remote configuration and monitoring of the receiver
5. Limited network knowledge required
6. 19" rack mountable

Easy to install

The STL solution consists of a transmitter and a receiver, which can also be used independently from each other. Using the optional rack mount kit, both devices can be mounted in a 19" rack. With standard CAT5 cables the devices are connected to the data network. Audio inputs and outputs are balanced XLR connectors.

SAS250 transmitter

The SAS250 transmitter is installed in the studio and is equipped with XLR inputs and a headphone output. Analog audio is encoded in Ogg Vorbis format. This delivers excellent audio quality and requires little bandwidth. A standard ADSL connection normally provides sufficient bandwidth. Configuration of the SAS250 transmitter is done with the additional free Streamit Terminal Program (STP).

SIR150 receiver

The SIR150 receiver is installed in the cable head-end, in the FM transmitter station or at the satellite uplink. This SIR150 has XLR outputs and supports not only Ogg Vorbis streams but also AAC+, WMA and MP3. An SD(HC) memory card with a backup radio program deals with unexpected network issues. After a network or power failure the SIR150 automatically reconnects to the SAS250 transmitter. The configuration of the SIR150 is done with Streamit's Channelservice.fm web service. This portal also allows for remote monitoring and reconfiguration. A long drive to the head-end or to the FM transmitter site will become a rare trip.

RDS data

Both the SAS250 transmitter and the SIR150 receiver have an RS232 port for transparent RDS data transfer.

Low delay

The Streamit SAS250 and SIR150 have a 'low delay' feature. Contrary to common audio transmission over the Internet the delay for Streamit's STL is less than 1 second, depending on the bitrate being used.

Transmitter locations

Streamit's STL solution is being used around the globe by small and large radio stations and by cable and satellite network operators just as well. Network operators in particular are enthusiastic about the possibility to standardize and increase productivity because of the flexibility Streamit's STL solution offers.



PRODUCT FEATURES



MP3 is the most commonly used format for storing digital audio as well as for audio streaming.

Applies to devices: SIR150



WMA is the Microsoft audio format. This format is used by many internet radio stations.

Applies to devices: SIR150



Ogg Vorbis is a free and open source audio format intended to serve as a replacement for MP3. For many applications, Ogg Vorbis has clear advantages over other audio formats in that it produces smaller files at equivalent or higher quality when using bitrates ≥ 64 kbps. *Applies to devices: SIR150 SAS250*



AAC+ is a standardized audio format and designed for 16-48 kbps streaming audio applications. CD quality is achieved at 48 kbps.

Applies to devices: SIR150



SAF (Store And Forward) enables the device to update the audio content of the memory card from a remote server. *Applies to devices: SIR150*

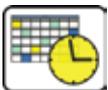


SMCP (Streamit Monitoring and Control Protocol) is used to monitor and control your device. The device sends status message at user-defined intervals to a remote monitoring server; from the remote server also commands can be sent to the device.

Applies to devices: SIR150



Encryption. The device supports both playback of encrypted files and encrypted streams. *Applies to devices: SIR150 SAS250*



Scheduler. Schedules can be sent to the device from a remote server, consisting of all kind of tasks to be executed at desired moments in time and daily intervals.

Applies to devices: SIR150 SAS250



RSU (Remote Software Update) enables the device to update its internal software from a remote server.

Applies to devices: SIR150 SAS250



LD (Low Delay) enables the delay between source and receiver to be reduced to less than 1 second, depending on the bitrate being used. *Applies to devices: SIR150 SAS250*

ABOUT STREAMIT

Streamit is a Dutch company specialized in the development and marketing of transmitter and receiver equipment for audio and video streaming over the internet. The SIR internet radio device is a typical example of the attention we pay to quality and reliability of our products without sacrificing user friendliness. We develop our products for niche markets where quality and specific requirements can not be met by standard consumer solutions. Our products and solutions are being used worldwide.

Streamit B.V.

Verdunplein 10
5627 SZ Eindhoven, the Netherlands

T +31 40 255 60 36 • F +31 40 844 39 42
E info@streamit.eu • I www.streamit.eu

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TECHNICAL INFORMATION

ORDER INFORMATION

Type number Europe
Type number US / Canada
Type number UK
Type number Australia

SAS250

SAS250 / EU
SAS250 / US
SAS250 / UK
SAS250 / AU

SIR150

SIR150 / EU
SIR150 / US
SIR150 / UK
SIR150 / AU

INCLUDED IN DELIVERY

SIR internetradio or SAS audio streamer, Powersupply 12 Vdc with screw jack, Ethernet cable RJ45 3m, USB programming cable, Quick start manual

SIZE AND WEIGHTS

Parameter	SAS250	SIR150
Sizes (b x d x h mm)	220 x 125 x 45	220 x 125 x 45
Size of packaging (b x d x h mm)	310 x 220 x 100	310 x 220 x 100
Weight (g)	800	800
Total weight in packaging (g)	1300	1300

SPECIFICATIONS

Parameter	SAS250	SIR150
Stereo decoder		SIR150
Stereo encoder	Ogg Vorbis	MP3, WMA, AAC+ and Ogg Vorbis
Samplefrequency (max. kHz)	44,1	48
Bitrate (stereo, max. kbps)	135	320
Ethernet controller	10 Mbps	10 Mbps
Audio input impedance	> 20 kOhms (balanced)	
Common mode rejection ratio	> 50 dB	
Inputlevel (nominal, clipping)	6 / 15 dBu	
Outputlevel (nominal, clipping)		6 / 15 dBu
LCD-display	662 x 15 mm, 2 x 16 characters, 5 x 8 dots	
LCD-display with backlight / color	yes/blue	yes/blue
Languages	English	Dutch / English / German
Real-time clock	yes	yes
Firmware upgrade on-line	yes	yes
Compatible with Icecast/Shoutcast	yes/no	yes/yes
Windows Media Streaming compatible		yes (HTTP / RTSP / MMS)
SD memory card / back-up	yes	yes
Poweradapter	100 - 240 VAC / 12 Vdc - 500mA	
Power consumption		
- standby (typical W)	2	2
- operation (typical W)	3	3

INPUTS

Parameter	SAS250	SIR150
Ethernet 10/100 Base-T	RJ45	RJ45
Power in 12 Vdc	Screw-jack	Screw-jack
Service-connector in/out	USB-A	USB-A
MMC/SD/SDHC-card	yes	yes
Remote control	yes	yes
RS232	yes	
Balanced inputs	2x XLR female	

OUTPUTS

Parameter	SAS250	SIR150
Stereo lineoutput / headphone	6,3 mm	2 x RCA
Balanced outputs		2x XLR male
RS232		yes

TEMPERATURE RANGE

Parameter	SAS250	SIR150
Operation (°C)	+10 to +35	+10 to +35
Storage packed (°C)	-25 to +50	-25 to +50
Storage unpacked (°C)	0 to +45	0 to +45

ACCESSORIES

Parameter	SAS250	SIR150
19"-rack mounting kit	MK	MK

SERVICE COMPONENTS

Parameter	SAS250	SIR150
Power adapter (Europe)	SPS/EU	SPS/EU
Power adapter (USA / Canada)	SPS/US	SPS/US
Power adapter (UK)	SPS/UK	SPS/UK
Power adapter (Australia)	SPS/AU	SPS/AU

SIGNAL SPECIFICATION OF COMPLETE SOLUTION

Amplitude response	< +/- 1 dB, from 20 Hz - 20 kHz
Total harmonic distortion	< 0,15%
Total intermodulation distortion	< 0,15%
Signal to noise ratio	> 75 dB relative to 0 dBFS (Unweighted)
Left/right channel level difference	< 1 dB, from 20 Hz - 20 kHz
Left/right channel phase difference	< 5 °, from 20 Hz - 20 kHz
Left/right channel separation stereo mode	> 70 dB, from 20 Hz - 20 kHz
Audio level non-linearity	< 0,4dB, from 20 Hz - 20 kHz @ -40dB
Signal to hum ratio	> 80 dB, RMS from 20 Hz - 1 kHz @ 0 dBFS
Minimum delay @ 128 / 64 / 16 kbps	0,7 / 1,5 / 3,2 s

SIR150



SAS250

