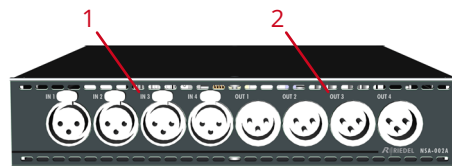


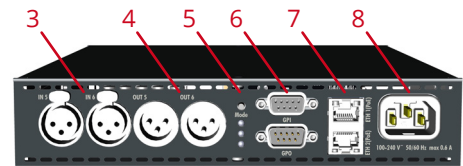
NSA-002A *(Network Stream Adapter)*

The NSA-002A is a fanless device for an analog breakout of multiple analog signals from/to an AES67 network.

- 6 balanced analog 4-wire I/Os
- 3 GPIs and 3 GPOs
- Internal and PoE power



front view



rear view

Legend

- | | |
|--|---|
| 1) Analog 4-wire input connectors (IN 1 ... 4, XLR3) | 5) Mode switch & Status LEDs |
| 2) Analog 4-wire output connectors (OUT 1 ... 4, XLR3) | 6) GPI / GPO connectors (IN / OUT, D-Sub9) |
| 3) Analog 4-wire input connectors (IN 5 ... 6, XLR3) | 7) Ethernet connectors (ETH1 / ETH2, RJ45, PoE) |
| 4) Analog 4-wire output connectors (OUT 5 ... 6, XLR3) | 8) Power connector (IEC) |

Front Elements

IN (1 ... 4)	4× analog inputs
OUT (1 ... 4)	4× analog outputs

Rear Elements

IN (5/6)	2× analog inputs
OUT (5/6)	2× analog outputs
Mode switch	Manual / Bolero plug & play mode
Status LEDs	Device Mode, State, PTP Status
GPI	3× general purpose digital inputs
GPO	3× general purpose digital outputs
ETH1 (PoE)	10/100/1000 Mbit (IEEE 802.3af)
ETH2 (PoE)	10/100/1000 Mbit (IEEE 802.3af)
Mains	IEC connector

NSA-002A (Network Stream Adapter)

Inputs

Analog Audio Line In	6× balanced		
Nom. Input Level	+6 dBu		
Max. Input Level	+24 dBu		
Input Impedance	10 kΩ		
Frequency Response	20 Hz .. 20 kHz	-0.5 dB	
Signal to noise ratio (SNR)	>100 dB	@ +24 dBu	
Crosstalk	<-110 dB	@ 1 kHz	adjacent channels
Total Harmonic Distortion (THD&N)	typ. 0.008 %	@ +6 dBu	
Resolution	24 bit		
GPI In	3× galvanically isolated opto-coupler inputs		
Isolation Voltage	100 VDC		
Maximum Voltage	30 VDC		
Input Current	5 mA @ 5 VDC		
Switching threshold	off: <0.8 VDC, on: >2.0 VDC		

Outputs

Analog Audio Line Out	6× balanced		
Nom. Output Level	+6 dBu		
Max. Output Level	+24 dBu		
Output Impedance	<200 Ω		
Min. load Impedance	2 kΩ		
Frequency Response	20 Hz .. 20 kHz	-0.5 dB	
Signal to noise ratio (SNR)	>100 dB	@ +24 dBu	
Total Harmonic Distortion (THD&N)	typ. 0.008 %	@ +6 dBu	
Crosstalk	< -110 dB	@ 1 kHz	adjacent channels
Resolution	24 bit		
GPO Out	3× galvanically isolated solid-state relay output		
Isolation Voltage	100 VDC		
Maximum Voltage	30 VDC		
Maximum Current	100 mA		

Status LEDs

Device Mode	<i>blue</i> <i>violet</i>	Bolero mode (plug-and-play mode for use with Bolero wireless intercom systems)	
State	Bolero plug & play mode	<i>green</i>	Manual mode Connection OK
		<i>green blinking</i>	• Synchronization errors. (This may happen during the first 5 min.) • Check PTP settings. • Audio glitches may happen.
		<i>red</i>	Antenna not connected or not configured in Bolero web server.
		<i>orange</i>	All other cases.
	Manual mode	<i>green</i>	Connection OK or idle (not configured).
		<i>green blinking</i>	Connection configured but no data communication.
		<i>red</i>	Connection configured but mismatch between sender and receiver. • Synchronization errors. (This may happen during the first 5 min.) • Check PTP settings. • Audio glitches may happen.
		<i>orange</i>	All other cases.
PTP Status	<i>green</i>	PTP slave, PTP offset <1 μs	
	<i>green blinking</i>	PTP master	
	<i>orange</i>	PTP slave, PTP offset 1 ... 100 μs	
	<i>orange blinking</i>	PTP listening, Slave mode only	
	<i>red</i>	Error / PTP offset >100 μs	

Overall

Environmental Temperature	0°C ... +50°C		
Humidity	20 % ... 90 % rel. hum. (non-condensing)		
Supply Voltage	mains	100 ... 240 VAC, 50 / 60 Hz, max. 0.6 A inrush current	
	PoE IEEE 802.3af Type 1	42 ... 57 V	
Power Consumption	mains	<25 W / <85 BTU/hr	
	PoE class 3	<12.95 W / <44.19 BTU/hr	
Dimensions (w×h×d)	218 mm × 45 mm × 276 mm (242 mm × 65 mm × 293 mm with bumpers)		
Weight	1770 g (2250 g with bumpers)		