

**MakerPlane**

# AMX-10A

2-Channel Mono + 4-Channel Stereo Audio Mixer

## Installation Guide

© 2022 Vx Aviation  
© 2022 huVVer.tech



---

# AMX-10A

## 2-Channel Mono + 4-Channel Stereo Audio Mixer

### Description

The AMX-10A device is a 2-channel mono plus a 4-channel stereo audio mixer for aircraft applications.

The device functions as a mini mono/stereo audio panel for combining and amplifying various audio sources. It provides a seamless interface into common intercom systems or directly drives headphones—all in a small package that takes no valuable panel space.

System wiring is greatly simplified and the units occupy a very small footprint, with all of the circuitry contained in a standard 25-pin D-subminiature connector shell. A large number of signal ground pins are provided to simplify the connections of cable shields. All of the audio connections are made to the 25-pin connector built into the unit.

Two of the four stereo audio inputs have volume controls that are screwdriver adjustable, while the other two and the pair of mono inputs are fixed level for connection to instruments that have their own volume adjustment capability.

The AMX-10A is capable of driving up to 12 volts peak-to-peak with a nominal gain of 12 dB (unloaded). Direct drive of stereo aircraft headphones is possible.

The wide bandwidth of these devices provides high quality audio. Frequency response is -3dB over the range of 30 Hz to 18 KHz. Volume control is provided for the individual left and right channels of two of the stereo input pairs. Audio balance may be controlled by adjusting the controls as required.

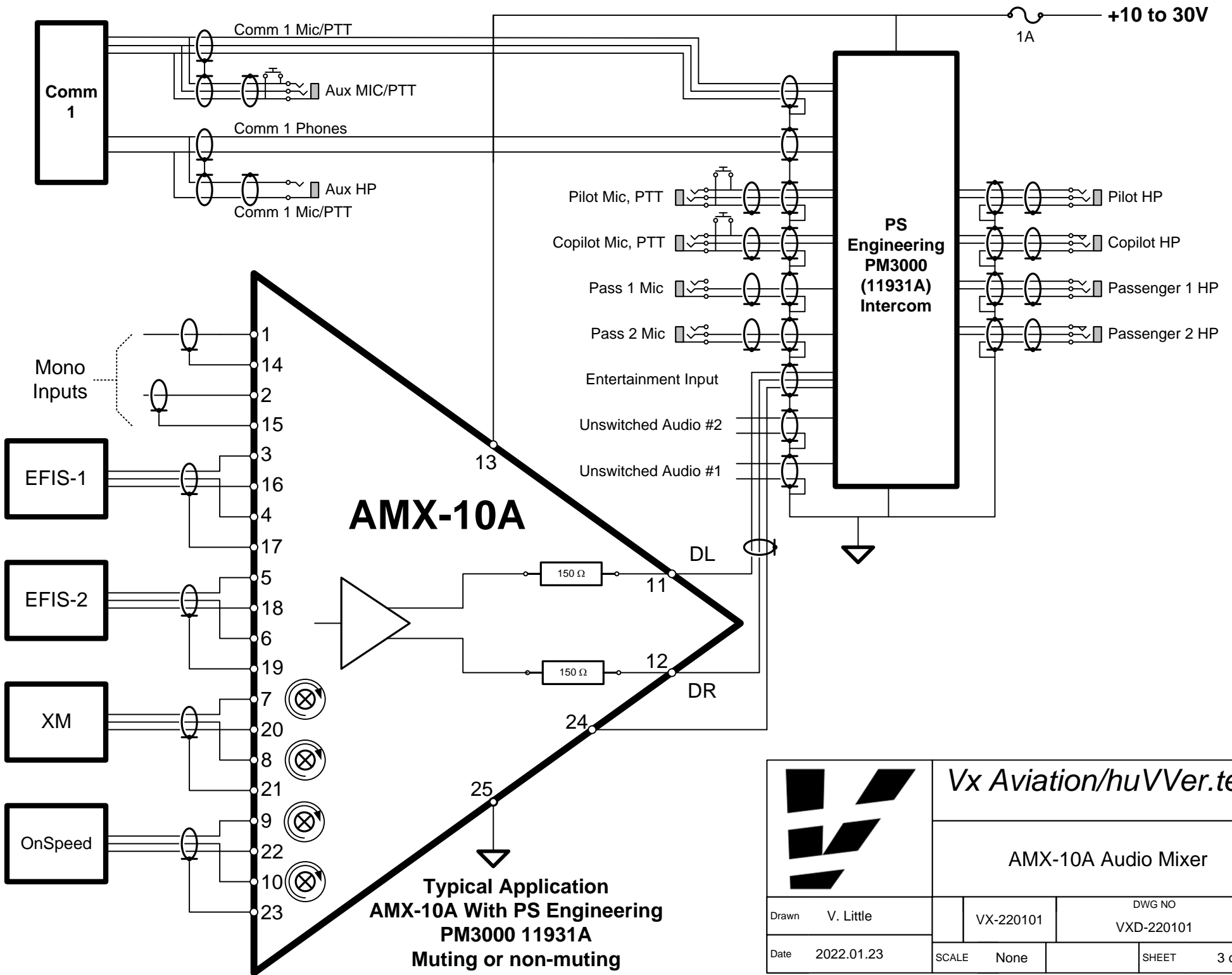
Monophonic signals may also be connected to the device, preferably on either of the fixed mono inputs, or by pairing the L&R signals of the stereo inputs.

The device may be used as a 10-channel monophonic mixer simply by connecting the two output signals (DL and DR) together. This mode provides six fixed level and four variable level channels.

### Technical Summary

- ❑ 2 mono and 4 stereo audio input channels with 1 K $\Omega$  input impedance:
  - ❑ 2 fixed-level mono inputs
  - ❑ 2 fixed-level stereo input pairs
  - ❑ 2 variable-level stereo input pairs
- ❑ Audio output capable of driving 12 volts peak-to-peak, including headphones directly
- ❑ Wide frequency range 30 Hz to 18 KHz (-3dB)
- ❑ Output impedance of 150 ohms, each channel
- ❑ Less than 50 mA current drain, 10 to 30 volt operation

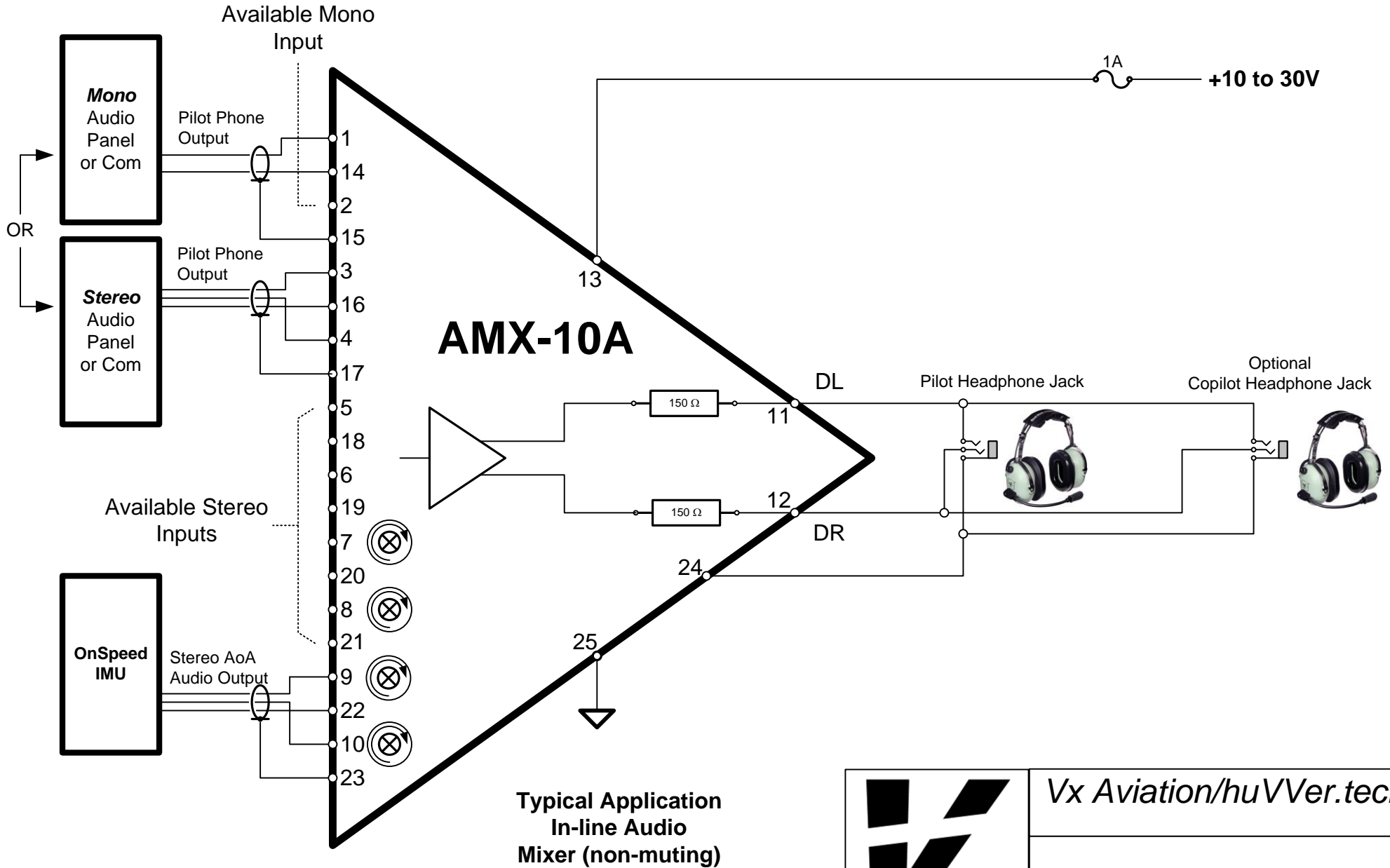
**NOT FOR USE IN CERTIFIED AIRCRAFT**




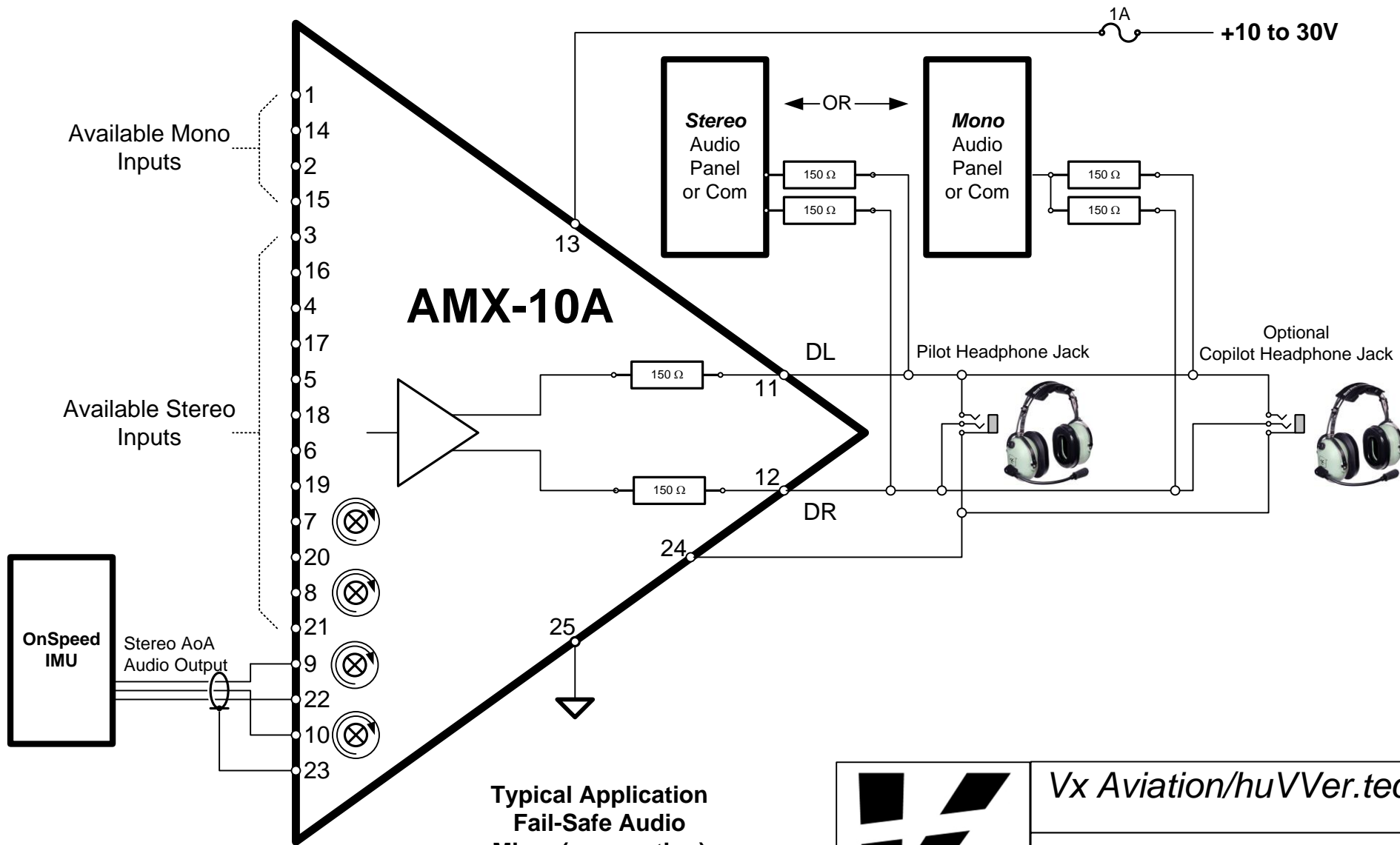
Vx Aviation/huVVer.tech

AMX-10A Audio Mixer


Drawn	V. Little	VX-220101	DWG NO	REV
Date	2022.01.23		VXD-220101	A3
SCALE	None	SHEET	3 of 6	



		Vx Aviation/huVVer.tech		
		AMX-10A Audio Mixer		
Drawn	V. Little	VX-220101	DWG NO VXD-220101	REV A4
Date	2022.01.23	SCALE None	SHEET	4 of 6

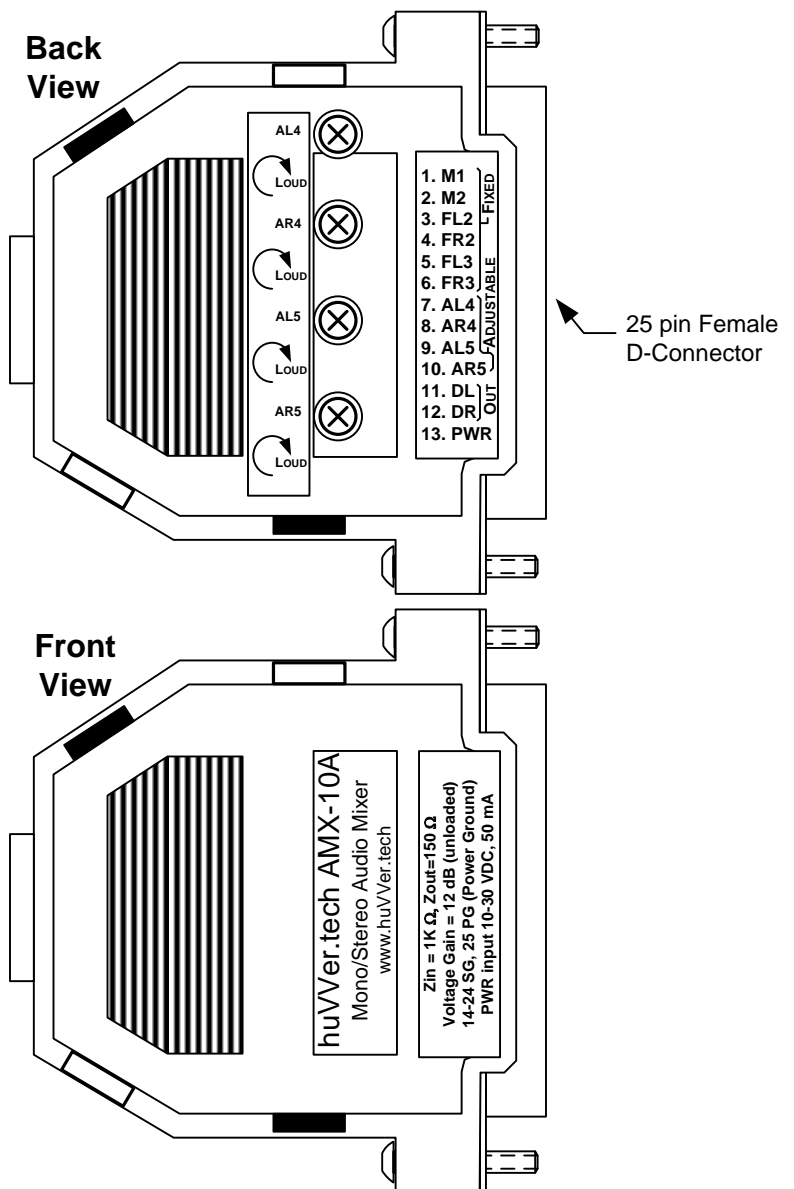


Typical Application  
Fail-Safe Audio  
Mixer (non-muting)

		Vx Aviation/huVVer.tech		
		AMX-10A Audio Mixer		
Drawn	V. Little	VX-220101	DWG NO	REV
Date	2022.01.23		VXD-220101	A4
SCALE	None	SHEET	5 of 6	


## AMX-10A Audio Mixer Pin Description

DB 25F Pin	Pin Name	Function	Connection
1	M1	Fixed Level Input. 600 $\Omega$ nominal input impedance.	M1 & M2 are mono inputs. FL2/FR2, FL3/FR3 are stereo inputs.  Mono and stereo audio sources that have their own volume controls. Connect using shielded wire, with shield connected to <b>SG</b> , AMX-10A end only.
2	M2		
3	FL2		
4	FR2		
5	FL3		
6	FR3		
7	AL4	Adjustable Level Input. 600 $\Omega$ nominal input impedance.	Stereo audio sources that require a volume or balance control. Connect with shielded wire, with shield connected to <b>SG</b> , AMX-10A end only. Audio volume is screwdriver adjustable.
8	AR4		
9	AL5		
10	AR5		
11	DL		
12	DR	Right Audio Output. 150 $\Omega$ source impedance.	Intercom Entertainment Right input. Use shielded wire, with the shield connected to Intercom only.  Alternatively, stereo headphone Right input.
13	PWR	Power Input.	10-30 volt power. 50 mA maximum current consumption.
14-24	SG	Signal Ground.	Shield and Audio grounds.
25	PG	Power Ground.	Power Ground. Internally connected to SG.



## Electrical Specifications Over Ambient Temperature Range

Parameter	Function	Min	Typ	Max	Units	Notes
T <sub>A</sub>	Ambient Operating Temperature	-40	25	50	Degrees Celcius	Non-condensing
V <sub>CC</sub>	Operating Voltage on PWR input	10	14-28	30	Volts DC	Protect PWR with 1 Amp Fuse or Breaker
I <sub>CC</sub>	Current Drain		20	50	mA DC	
a <sub>v</sub>	Voltage Gain (per input)		12		dBV	AMX-10A Outputs unloaded
f <sub>c</sub>	Typical Frequency Response	30		18K	Hz	-3 dB, Outputs loaded 150 $\Omega$

	<b>Vx Aviation/huVVer.tech</b>		
	AMX-10A Audio Mixer		
Drawn	V. Little	VX-220101	DWG NO VXD-220101
Date	2022.01.23	SCALE None	REV A3
		SHEET	6 of 6