

Dante/AES67 POE 32*32 Module

AM-A227

User manual

Rev1.2

Version	Describe	Date
Rev 1.0	Create first draft	2023-08-25
Rev 1.2	PCB design update	2024-2-29

Table of contents

1	Product description.....	1
1.1	Product name and model.....	1
1.2	Functional features.....	1
2	Audio Characteristics.....	2
3	Electrical Characteristics.....	2
3.1	Module power supply.....	2
3.2	Pin out.....	2
3.3	Interface description.....	3
4	Software support.....	4
5	Structural dimensions.....	4

1. Product Overview

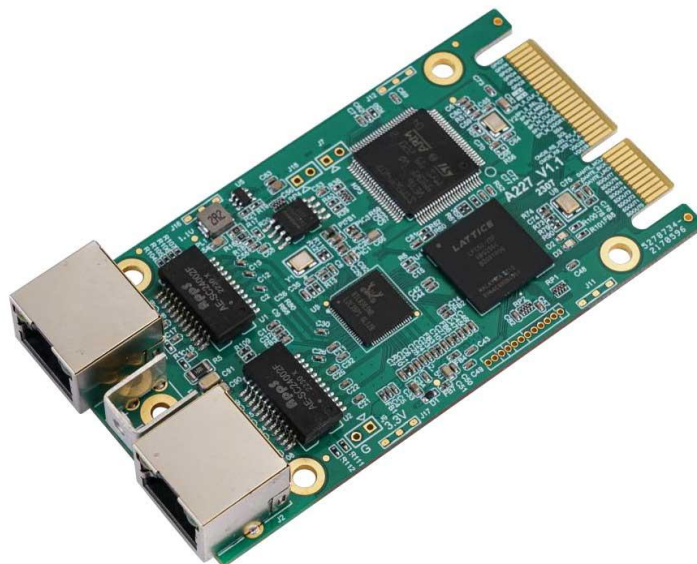
1.1 Product name and model

Name: Integrated Dante/Aes67 audio network transmission module 32x32

Model: AM-A227

1.2 Features:

- **Dante/AES67 Protocol Support:** Seamlessly integrate with audio systems using Dante/AES67 protocol, ensuring compatibility and versatility.
- **Mix, Volume, and Delay Adjustment:** Easily adjust mixing, volume levels, and delay settings for precise audio control and synchronization.
- **Built-in Gigabit Network Switching Chip:** Features an onboard Gigabit network switching chip, enabling efficient data transfer and connectivity. Additionally, it can be powered by its own PoE switch for added convenience.
- **Expandable Connectivity:** Connect up to 32 devices each for input and output, offering expansive options for audio integration and distribution.
- **Gold Finger Connection:** Utilizes gold finger connection for seamless plug-and-play functionality, ensuring quick and reliable setup without the need for complex configurations.



2. Main Technical specifications:

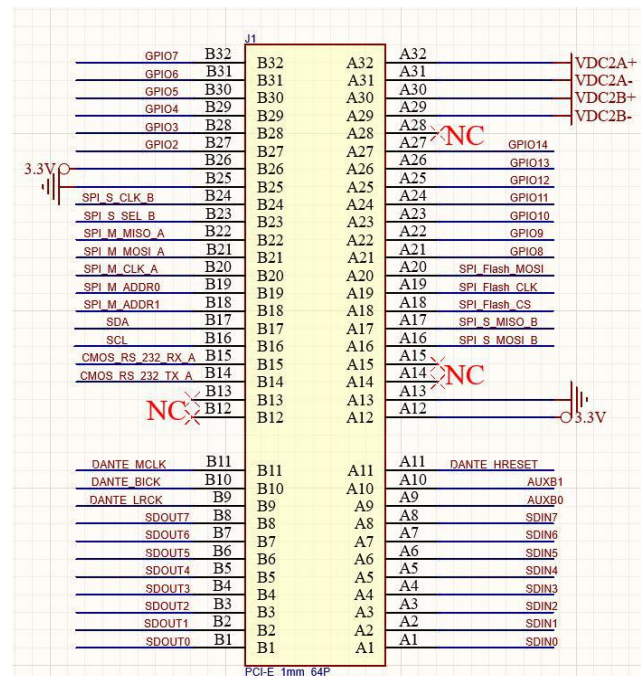
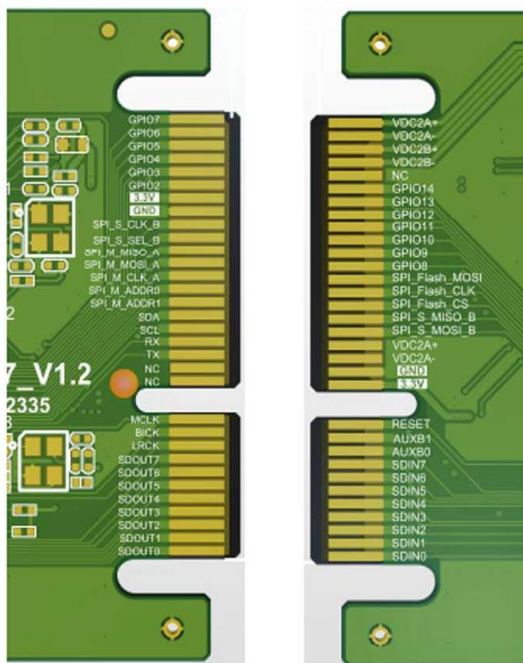
Sampling Rate	48kHz, 96kHz
Audio input/output channels	Support 32x32 matrix function
Digital audio Format	TDM, I2S
Audio transmission format	Audio over IP, AES67
Sampling bit	16/24/32 bit
Clock	Onboard WCLK or External LRCK

3. Electrical Characteristics

3.1 Module power supply

The power supply voltage of AM-A227 is 3.3V, and the voltages VDC2B+, VDC2B-, VDC2A+, and VDC2A- are output voltage as input to the user's power strip.

3.2 Pin distribution



3.3 Interface description

Type	Name	Describe
Powers	3.3V	3.3V Power supply(input)
	GND	Ground
	VDC2B+	For external PoE circuit (output)
	VDC2B-	
	VDC2A+	For external PoE circuit (output)
	VDC2A-	
I2S	DANTE_MCLK	I2S master clock (output)
	DANTE_BLCK	I2S bit clock (output)
	DANTE_LRCK	I2S word clock (output)
	MCLK[0:7]	I2S data output
	SDIN[0:7]	I2S data input
I2C	SDA	I2C data line
	SCL	I2C clock line
SPI master	SPLM_CLK_A	SPI clock pin
	SPL_M_MOSI_A	Transfer data from slave device to master device
	SP_M_MISO_A	Master device transmits data to slave device
	SPL_M_ADDR1	This pin is left floating and its function needs to be defined
	SPLM_ADDRO	Chip select signal
SPI from	SPI_S_CLK_B	SPI clock pin
	SPI_S_SEL_B	SPI chip select
	SPIL_S_MISO_B	Master device transmits data to slave device
	SPI_S_MOSI_B	Master device transmits data to slave device
Uart	COMS_RS_232_RX_A	UART data reception
	COMS_RS_232_TX_A	UART data transmission
Audio	AUXBU	reserved
	AUXB1	reserved
Reserved	GPIO[2:19]	Reserve GPIO port
reset	DANTE_HRESET	reset input

4. Software support

The control software can use Amtune's control software AudioController (for software usage, please refer to Software User Manual), and this module is also compatible with the software Dante Controller. The module supports firmware updates, If you need to update the firmware, please contact distributor.

5. Structural dimensions

AM-A227 reserves 2 positioning holes with a diameter of 3.5mm, and 4 shielding cover brackets are reserved on the front and back of the module.

Users can choose according to their needs.

