FionTu
方图集团

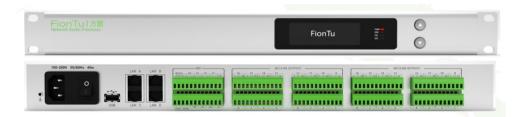## ▶ Feature:

1. This product is a network audio processor, designed with domestic ARM architecture, using Linux operating system, 64-bit floating point operation, and high-performance FFT/IIR/FIR hardware acceleration function for audio processing; the new generation FT-Designer integrated management platform, FionTu various audio products, free configuration in modular way, support online and remote management, can be used through the FT-Deginer platform to monitor and control the system in real time; the audio processing part adopts modular design scheme, which can be designed freely and flexibly, and adopts software drag-and-drop interface to facilitate the operation of the tuner; in terms of network transmission, FionTu's self-designed F-LAN audio network transmission protocol is used to realize the transmission, monitoring and management of network audio, and support audio interconnection with Dante-AES67 and QLAN-AES67

2. Applicable occasions: large and small meetings Sound reinforcement systems for conference rooms or multi-purpose halls and performance venues, background music systems for churches and theaters, public broadcasting systems for large venues such as airports, conference centers or hospitals

3. Built-in self-developed F-LAN protocol, supports AES67 standard, and can be interconnected with Dante-AES67 and QLAN-AES67

4. Supports 128*128 network audio input\output channels

5. Input 16 analog audio channels, all can be configured as microphone\line level analog channels, support 48V phantom power supply

6. Output 16 analog line levels

7. Support network central control interface, support panel control

8. Support front panel 3.12-inch OLED display, input, output level display and other equipment information display

9. Support front panel mechanical physical button adjustment

10. Support 48KHz/24bit sampling rate, 104dB dynamic range

11. Support SPD IF digital audio interface audio input\output

12. Support 4 Gigabit Ethernet ports for network audio cascading, network backup connection, FT-Deginer control connection

13. Support 4 GPI interfaces and 4 GPO interfaces, differential signal

14. Support AEC module

15. Support RS232, RS485 control interface

16. Use FT-Designer software to configure, control and monitor the system through the network

17. Compatible with other FionTu audio equipment accessories that are currently available or will be launched in the future, such as network adjustable directivity array sound column FT-L845A, G20-AES67 microphone, network audio interface box, etc.

Audio algorithm
1. Input module: Each module supports 4 channels of sound, supports level meter display, label customization, phase reverse, independent phantom power switch, gain adjustment, fader adjustment

2. Output module: Each module supports 4-channel sound, level meter display, label customization, phase reverse, fader adjustment

3. Delay module: maximum support 1000mS delay, minimum support 0.02mS delay

4. Routing module: maximum support 16*16 routing function

5. Mixing module: maximum support 64*64 mixing module, and can adjust the port gain and mute switch of input and output ports

6. Dynamic module: including automatic gain, compressor, limiter, noise gate, expander, limiter

7. Equalizer module: including maximum 16-band parametric equalizer and 31-band graphic equalizer

8. Filter module: including low-pass filter, high-pass filter, low-cut filter and high-cut filter, high-pass and low-pass filters provide LR and Butterworth filter types to choose from, support all-pass filter, FIR filter, etc.

9. Filter module: including crossover module and special filter module. The frequency divider supports up to 4 frequency divisions, and each frequency point can be adjusted separately. The filter types of each frequency point also have two types of filters, LR and Butterworth, to choose from. It also supports input gain, output gain and output reverse adjustment; special filters include low-pass, high-pass, low-pass slope, and high-pass slope.

10. Signal generator module: There are currently two modules available, white noise and sine wave signal, with adjustable gain and frequency

11. Level meter module: It can monitor the output level meter of the corresponding module in real time. A single module supports up to 8 level meters for simultaneous monitoring

12. Controller module: Mainly a 2-to-1 selector

13. Frequency shift howling suppressor: Howling suppression through 0~10Hz frequency shift

14. Notch howling suppressor: Howling suppression by notching specific frequency points

15. Automatic mixer: Improve the overall dynamics of the system through the gain sharing mechanism

16. Reverberation suppressor: Eliminate sound defects such as human voice echo

▶ Specification:

Analog indicators	
Frequency response	20Hz~20kHz: +0.21/-0.17
Channel isolation	(+4 dB 1k) -85.4 dB
Total harmonic distortion plus noise (THD+N)	-20dBFS @ 1kHz: 0.0057%
Channel isolation	(+4 dB 20k) -76.4 dB
Noise level	(20/20k passband) -80.1dBFS
Equivalent noise	-120.3dBu
Noise level (A-weighted)	-83.1 dBFS
Delay	2.5ms
Digital indicators	
Sampling frequency	48KHz
Microphone input frequency response	20Hz~20kHz: ±0.15dB
Quantization bit value	24bit
Line input frequency response	20Hz~20kHz: ±0.15dB
Output voltage	4.78Vp-p
Noise level	(20/20k passband) -126.3dBFS
Time base jitter	≤0.003UI

Noise level (A-weighted)	-128.2dBFS
Equivalent input noise	≤-120dBu
Crosstalk	Channel isolation (-20dBFS 20~20k) -105.8 dB
Signal-to-noise ratio	≥105.8dB
Level difference	Channel level difference (-20dBFS 20~20k) 0dB
Total harmonic distortion plus noise (THD+N)	-20dBFS @ 1kHz: <0.0005%
Phase difference	Channel phase difference (-20dBFS 20~20k) 0°
Electrical parameters	
Rated power consumption	40W
AC frequency	47~63Hz
AC input voltage range	88~265VAC
Dimensions (length, height, width)	482.6mm×44.45mm×370.0mm