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PoE Speaker



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A yellow triangle with a black exclamation mark inside, indicating a warning or caution.

Please read this user manual carefully before using. It contains important information concerning your safety and the correct installation.
Caution, never open the device by yourself. Refer servicing to qualified staff only.

A red heart icon, indicating a notice or important information.

Notice
Wipe off the dust on the surface with clean soft cloth (or silk). Wipe off the heavy dust on the surface with damp cloth .



The manual was carefully screened in case any of them contained false information. Mecanty takes no responsible for any error or negligence in printing, typesetting, translating. Please accept our apologies for any inconvenience we have caused. The pictures & specifications in this manual are consult only, if there is fluctuation, according to the real object please.



Thanks for purchasing GRF PRO Loudspeaker . Please read this manual carefully before using.

Introduction of GRF PoE Speaker

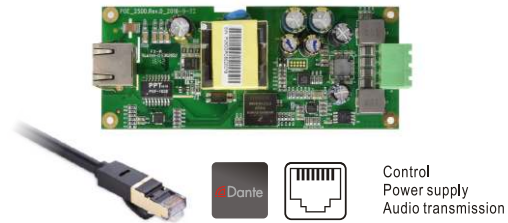
The GRF PoE (IEEE 802.3an, Power over Ethernet) speakers are the latest products of GRF AUDIO in 2017. They are intended to provide a solution for small zones of audio reinforcement connected to a network.

Compare with the traditional PA speaker by using built-in Transformer plus external PA amplifiers, the PoE speaker offering much easier solution, it permits DC Power & audio data transmitted by single network cable (8-wire Ethernet cable, Cat. 5e or higher), thus reducing cable and containment costs, eliminating remote 120/230 volt AC supplies and offering compliance with building IP/IT protocols.

The built-in PoE amplifier is compatible with both 15 watt PoE (IEEE802.3af) and 30watt PoE+ (IEEE802.3at). The amplifier will auto-negotiate the power level with the PoE Ethernet switch. It contains DSP processor which providing Gain control, Parametric EQ, Low and High pass filters, and Limiting. It is also compatible with standard Dante™ device search and routing configuration software from Audinate. The Dante™ protocol can be



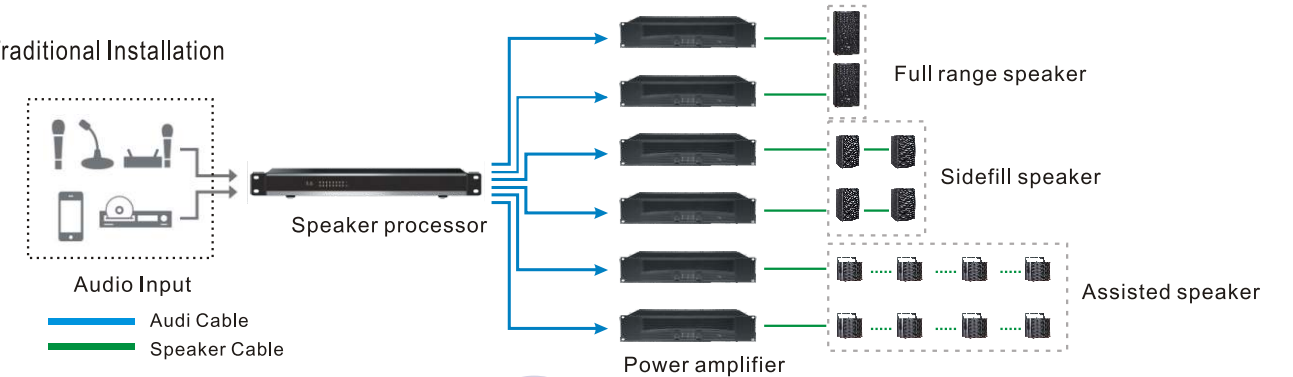
Traditional audio transmission



PoE Audio/Transfer/control in one

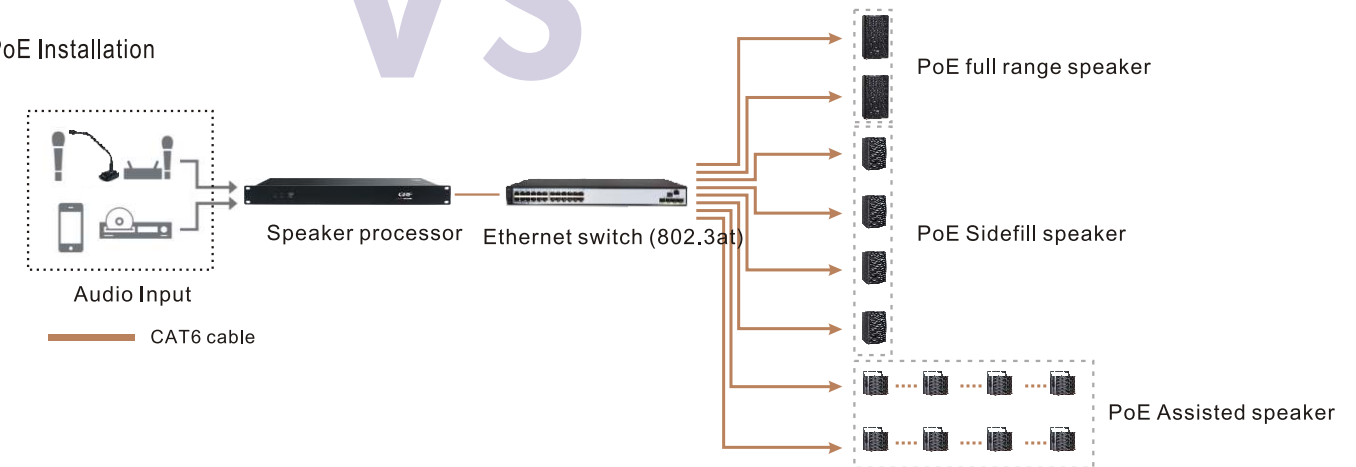
Traditional Installation VS PoE Installation

Traditional Installation

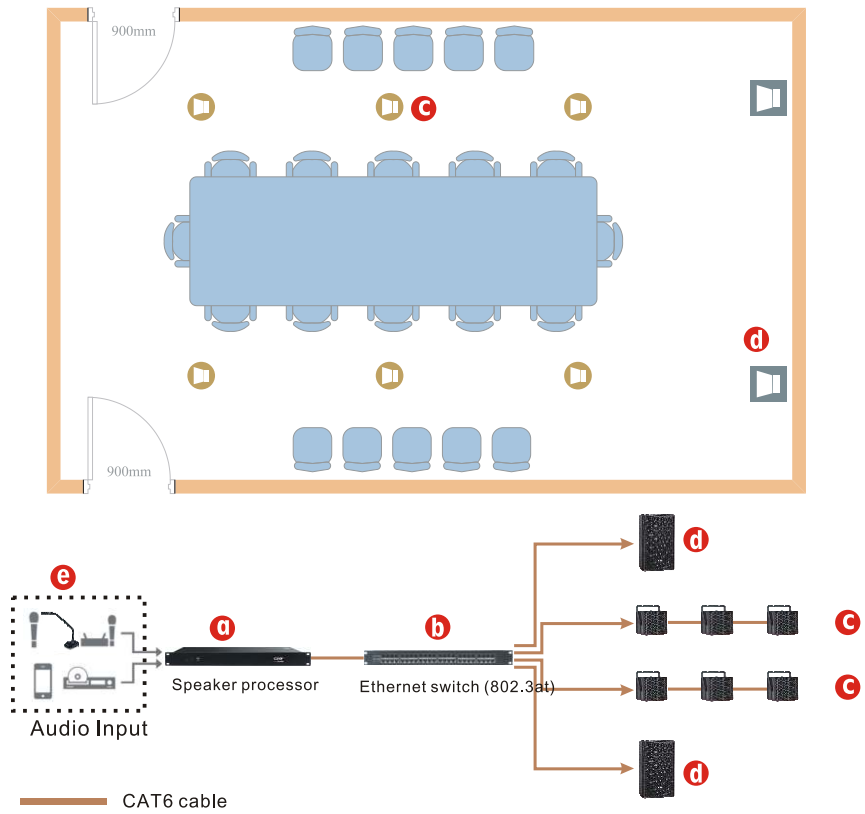


VS

PoE Installation

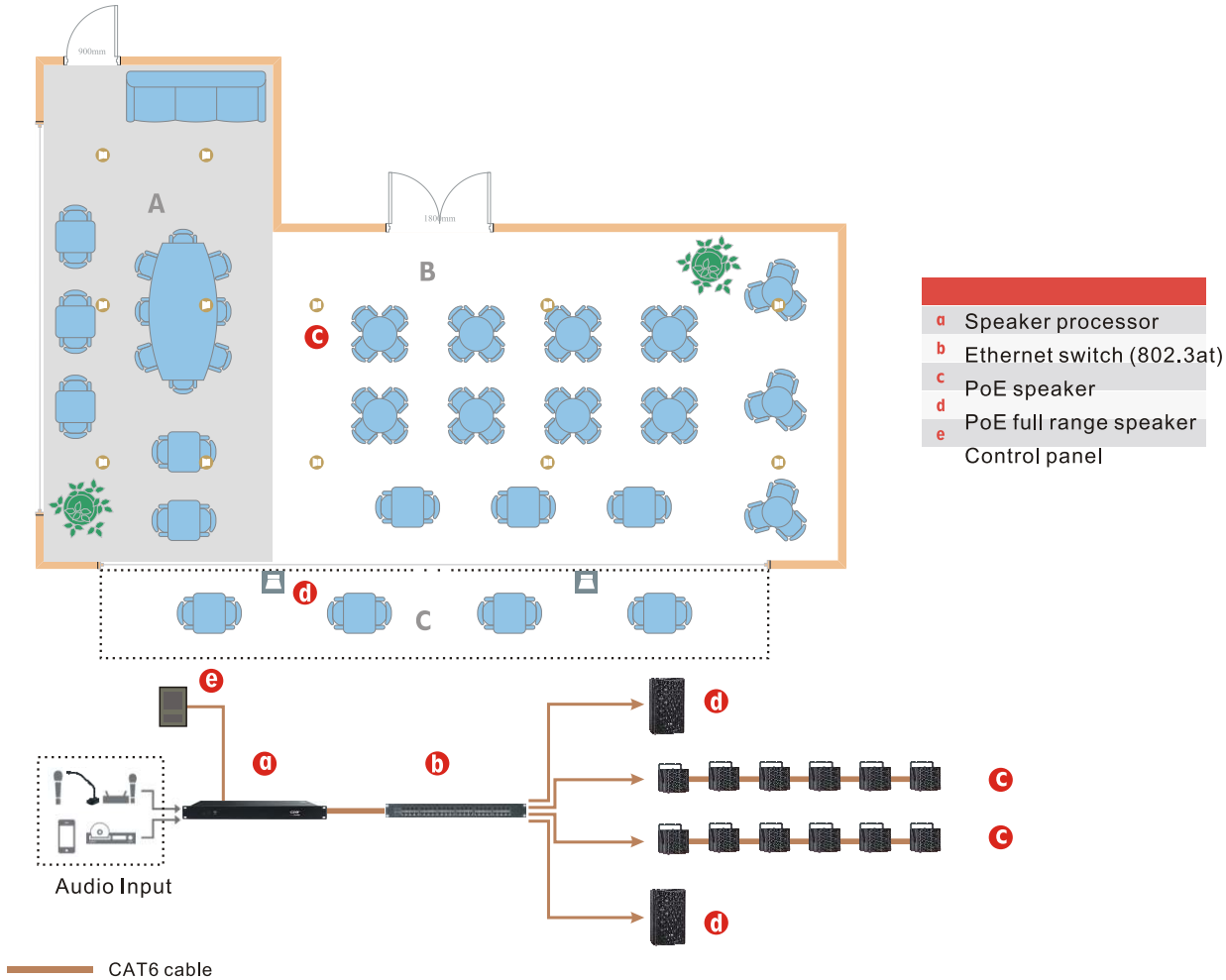


Conference room application solutions

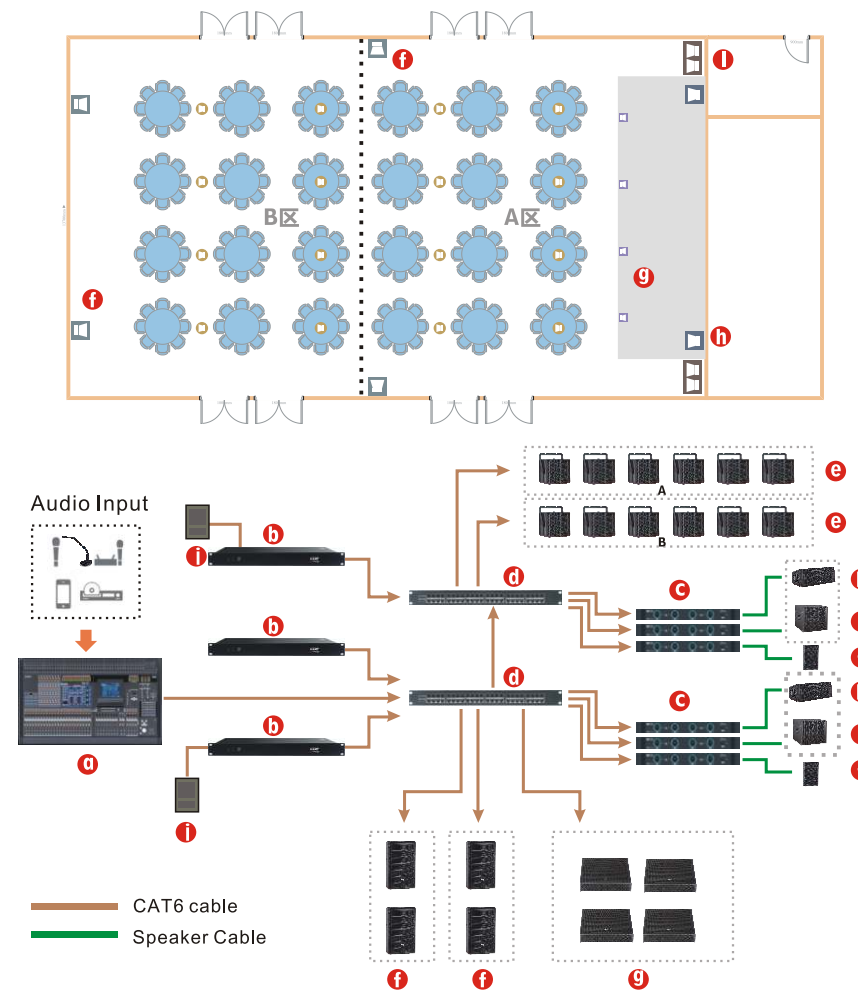


- a Speaker processor
- b Ethernet switch (802.3at)
- c PoE speaker
- d PoE full range speaker
- e DANTE MIC

Small business space application solutions



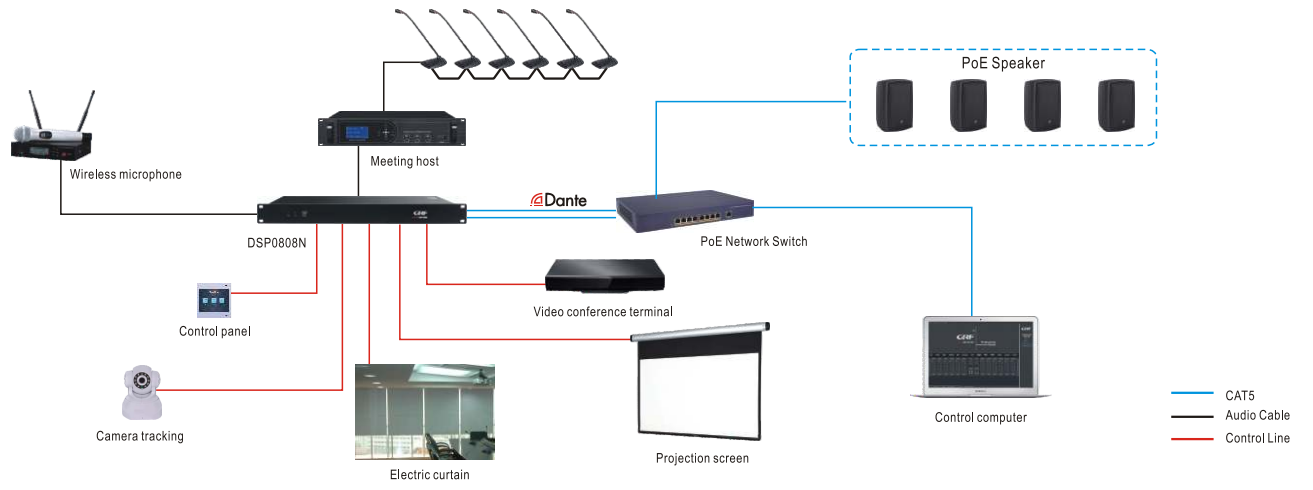
Banquet hall application solutions



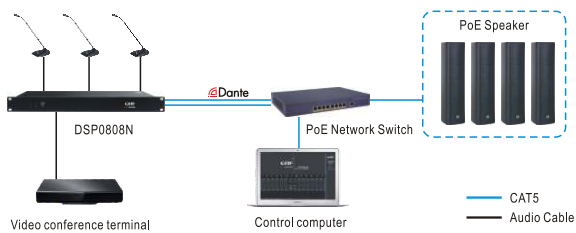
- a Digital mixer
- b Speaker processor
- c Power amplifier
- e Ethernet switch (802.3at)
- f PoE speaker
- g PoE Sidefill speaker
- h PoE Monitor speaker
- l Line array speaker
- i Subwoofer
- Control panel

Remote audio video conference system(Sample)

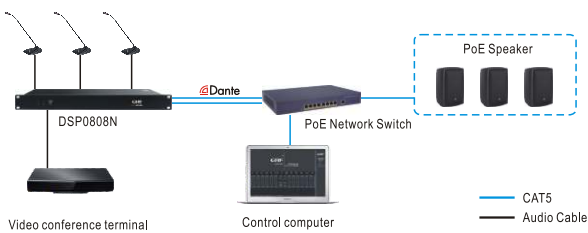
Main Venue



Office



Branch Office



POE Speaker Specifications



Type	PoE Aluminum Speaker	PoE Aluminum Speaker	PoE Plastic Speaker	PoE Plastic Speaker
Model	PoE2	PoE2.2	PoE3	PoE6
Driver	4.5" +1"	4.5"x2 +1"x2	4*3" Y35 Magnet full range cone speaker	4*6.5"+1"
Frequency response	180Hz~20KHz	180Hz~20KHz	150Hz-18KHz	50Hz-20KHz
Sensitivity	93dB	93dB	92dB	94dB
Max. SPL	109dB	112dB	111dB	113dB
Dispersion Angle	H60° x60°	H60° x60°	H90° xV30°	H90° xV60 °
Power Handling	40W	80W	70W	60W
Audio input	Dante (Ultimo 2) Dante Controller Software Class D			
Audio Routing Control	Output Over-Current, Over Temperature, Overload/Short Circuit			
Working mode	100Mbps			
Protections	Single RJ-45			
Transmission Speed	Cat. 5e or higher			
Input Connector (LAN)	IEEE802.3af and IEEE802.3at			
PoE Cable Type	CE,UL(or ETL,TUV), C-TICK,FCC,CCC (Built-in amplifier)			
Compliant with				
Safety and EMC compliance				
Product (HWD)	135x145x155mm/pc	270x145x155mm/pc	410x105x120mm/pc	300x200x160mm/pc
Dimension(Packing HWD)	140x435x180mm/2pcs	140x435x180mm/pc	465x320x150mm(2pcs into 1 carton)	360x495x280mm(2pcs into 1 carton)
N.W/G.W	1.6/1.8kgs (1pcs)	3.2/3.6kgs (1pcs)	3.2kg(1pcs)/7kg(2pcs)	3.4kg(1pcs)/8kg(2pcs)

DSP 0808S/DSP 0808N Audio Processor



The DSP0808 audio processor is a freely designed audio processing and control system.It uses advanced DSP processing technology, with a new automatic mixing, feedback elimination algorithm, targeted solutions to solve the practical problems in the scene.The built-in Dante module provides high bandwidth, low latency, high compatibility and low cost solutions for network audio transmission.Because most of the control through the software operation, so the appearance can be more

- USB background music playback and recording functions
- Support for mobile phones, tablet control and distributed cloud control
- Built-in Auto mixing, feedback,echo,noise cancellation DSP chipset
- Preamplifier, signal generator, expander, compressor, 5 PEQ on each input
- 31 GEQ, delay, Crossover and limiter on each output
- Matrix mixing function
- Built-in Dante module
- Built in automatic camera tracking
- Support scenario presets
- Power off automatic protection memory function;
- 1U rack

CPU	Ti 456MHz FLOPS DSP
Analog Channels	8 INS+8 OUTS
DSP Audio Processing	Auto mixing, feedback,echo,noise cancellation
GPIO	8 for In & out
RS232/RS485	1
RJ45	1
USB	1
RJ11	0
DANTE	Master + slave
DANTE delay	<1ms
Network channels	8 in +8 out
Max. Analog Gain	51dB
Bit	24bit
Sampling Rate	48k
Frequency response (20~20KHz)	?0.2dB
A/D Dynamic Range (A-weighting)	114dB
D/A Dynamic Range (A-weighting)	120dB
Input and Output Dynamic range	108dB
THD+N	< 0.002% @1KHz ,4dBu
Ground noise (A-weighting)	-90dBu
Delayed storage	2s
Analog input & output delay	3ms
Input impedance (balance)	20K?
Output impedance (balance)	100?
Max. input level	+24dBu, balance
Max. output level	+24dBu, balance
EIN (20-20kHz,A-weighting)	?-131dBu
Phantom power (per input)	48V
Input common-mode,60Hz	80dB
Crosstalk, 1kHz	100dB
Dimension(WxDxH)	483*260*44.5(mm)
G.W.	3Kg
Power consumption	<40W
Working temperature	0-40?
Power supply	AC110V-220V,50Hz/60Hz



DSP operation interface

DSP processing enables Mixer, Feedback controller, Echo & Noise cancellation module

Each CH has pre amplifier, signal, extension, compressor and 5 bands PEQ

Each output has 31 GEQ, delay, Xover, Limiter

Built-in Dante network audio module , Auto Camera Track

PoE speakers operating interface

PoE Speaker has built-in Amplifier, DSP&Dante signal processing module.

Allowing Gain, EQ, XOVER and limiter adjustment.

Remote monitoring PoE speaker’ s working temperature, music level and faults

Supporting Windows operation of all settings and monitoring

Supports Settings saving and loading

POE0404 Digital Network Audio Box

The POE0404 is a digital network audio box base on Dante protocol, it works with network switch and digital/analog audio inputs , it is able to transfer high quality network audio signal with low delay, it supports 4 balance analog inputs , supports POE+DC12V dual power supply as well as PC software for monitoring , mute and gain control. The DSP0404 is featuring very

- Key Features
- Supporting POE and DC12 V power supply
- Built-in Dante Active module
- 4 balance inputs and outputs
- Support 48V Panthom power
- Windows software controller

Dante Nework Audio input	1
Analog Max. Gain	26dB
Process Resolution	24bit
Sampling Rate	48k
Frequency Response	±0.2dB
Panthom Power	48V
Max. output Level	+8dBu, Balance
THD+N	<0.002% @ 4dBu
Noise Level	-97dBu
Input Impedance	20K Ω
Output Impedance	100 Ω
Delay	1ms
Crosstalk	100dB
Power supply	DC 12V & PoE



Windows Client software

DBOX0404 Digital Network Audio Box

DBOX0404 digital network audio box is able to transfer, mix and process digital network audio signal / analgo audio signal under Dante protocol. It delivers high quality digital signal with extremely low delay , it supports 4 balance anaglo signal inputs & outputs, supports POE+DC12V dual power supply as well as

- Key Features
- Supporting POE and DC12 V power supply
- Built-in Dante Active module
- 4 balance inputs and outputs
- Support 48V Panthom power
- Windows software controller

Dante Nework Audio input:	1
Mixer CH	8*8CH (4 analog inputs, 4 Dante inputs; 4 Analog outputs, 4 Dante outputs)
Process Gain Control, 5 bands EQ, Compressor, 31 GEQ, Limiter	
Analog Max. Gain	26dB
Process Resolution	24bit
Sampling Rate	48k
Frequency Response	±0.2dB
Panthom Power	48V
Max. in/out put Level	+8dBu , Balance
THD+N	<0.002% @ 4dBu
Noise Level	-97dBu
Input Impedance	20KΩ
Output Impedance	100Ω
Delay	1ms
Crosstalk @1KHz	100dB
Power supply	DC 12V & PoE



Windows Client software