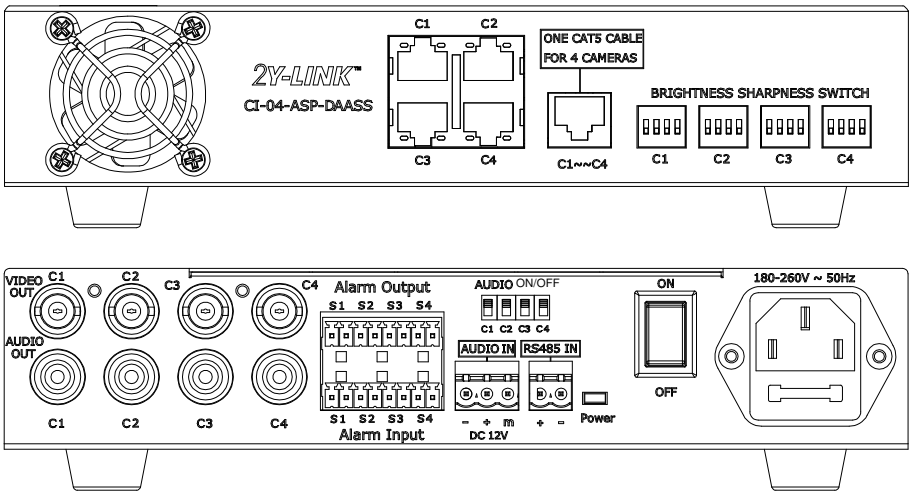
2Y-LINK TECHNOLOGY

MultiFunction Model Signal Processor

CCTV Installation System

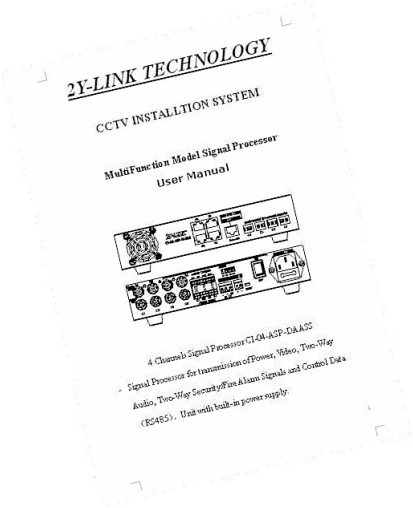
CI-04-ASP-DAASS 4 Channels Signal Processor

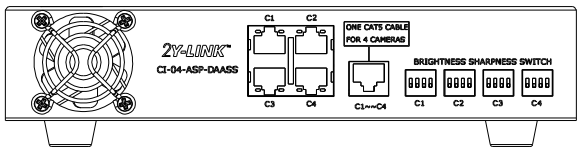
User Manual



Signal Processor with built-in power supply for transmission of Power, Video, Two-Way Audio, Two-Way Security/Fire Alarm Signals and Control Data（RS485）

The package of 2Y-LINK MultiFunction Model 4 Channels Signal Processor –CI-04-ASP-DAASS contents :





Product contents

- One 4 Channels Signal Processor
- One power cord (AU, BS, CN, or EU)
- CI-04-ASP-DAASS Signal Processor User Manual

Note : This package is only one part of CCTV installation package, must work with the Associated Equipment for complete CCTV System.

Associated Equipment

Mixer :TW200A12DAASS / RJ150A12D / PT080A12ISO

DB-4RJ Distribution Board for Four Cameras star connection with RJ45 Sockets and use Cat5 wire for connection

DB-2RJ DB-2ST Distribution Board for Ring connection with RJ45 Sockets or terminal for connection

Qualified installation Engineers and Technicians are needed to install our 2Y-LINK CCTV system

2Y-LINK Multi-Function Model
4 CHANNELS SIGNAL PROCESSOR CI-04-ASP-DAASS

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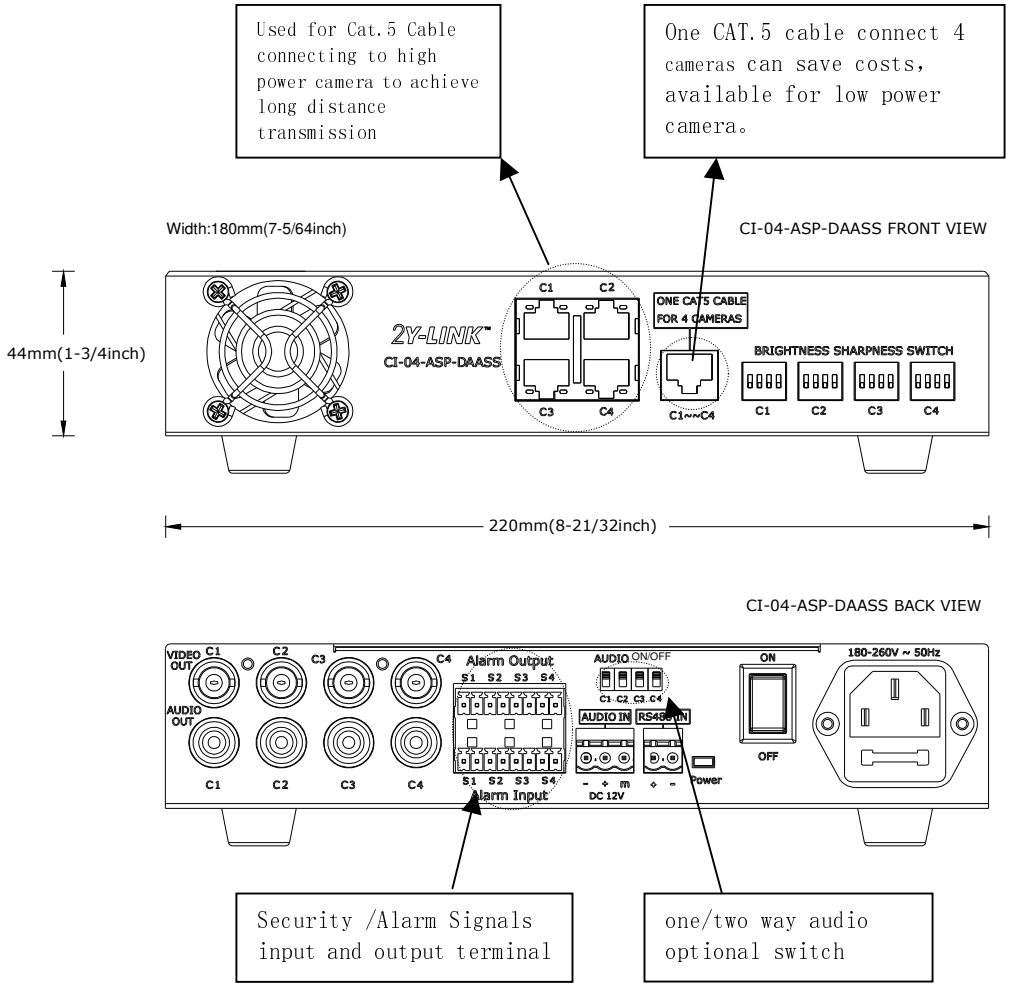
Product Overview

1) **Signal Processor** :CI-04-ASP-DAASS

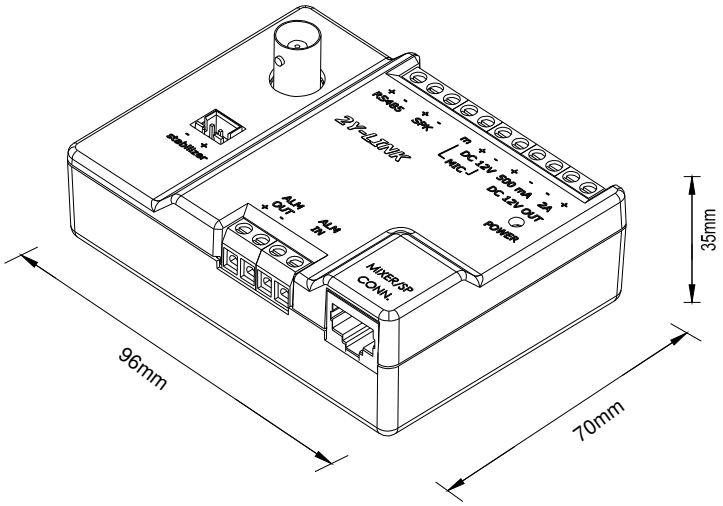
The Signal Processor should be installed at Control room next to DVR/ Monitor for 4 cameras thru mixers selected. Each channel can transmit POWER, AUDIO、VIDEO 、ALARM 、control data to mixer and it also can transmit Video, AUDIO 、ALARM 、control data to Signal Processor . Suitable for 24W (DC12V/2A) PTZ camera Video output 1.0 Vp-p 75Ω.



Associated Equipment needed

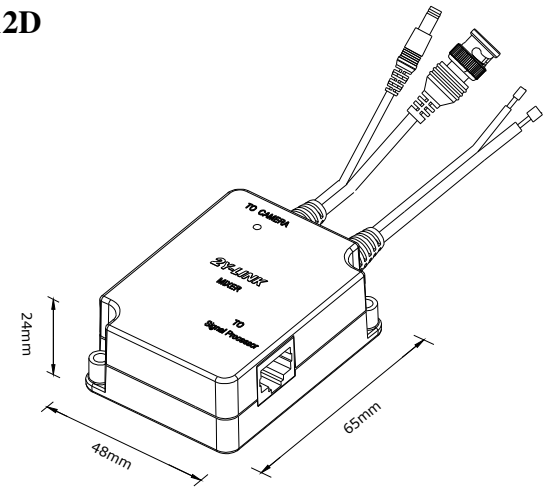
2)MIXER

TW200A12DAASS



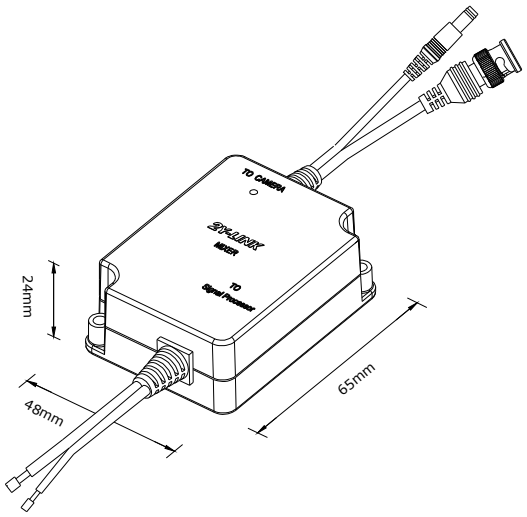
TW200A12DAASS MIXER, Mainly used for one CAT,5e cable connecting a high power camera，and it also can transmit POWER, AUDIO，VIDEO ， ALARM and RS485 Signal, transmit the distance up to 500m（1650ft）。

RJ150A12D



RJ150A12D MIXER， mainly used for one CAT,5e cable connecting a PTZ camera，transmit the distance up to 500m（1650 ft）

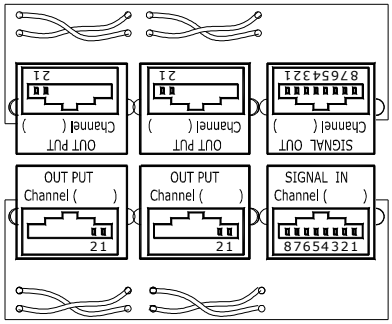
PT080A12ISO

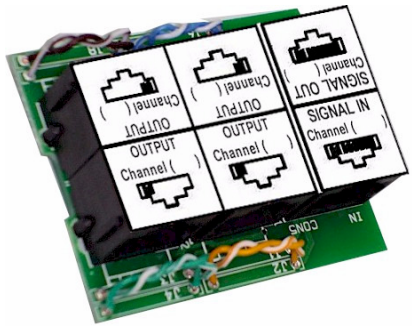


PT080A12ISO MIXER， Mainly used for one CAT,5e cable connect 4 cameras ， transmit the distance up to 500m（1650 ft），when connecting a 10w camera in order to transmit longer distance use #20AWG

3）Distribution Board

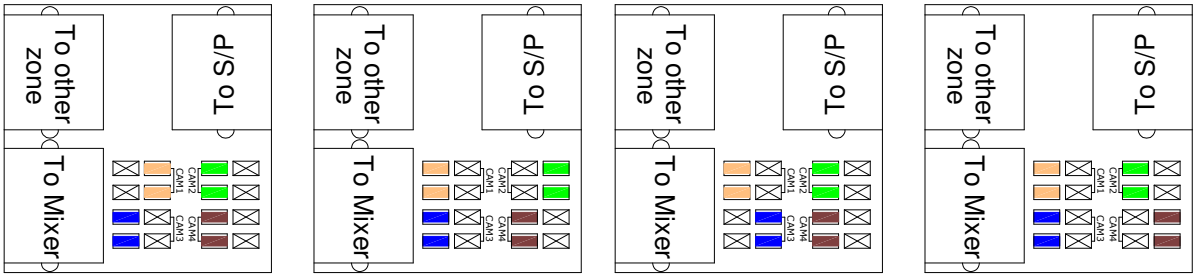
Star Connection DB-4RJ





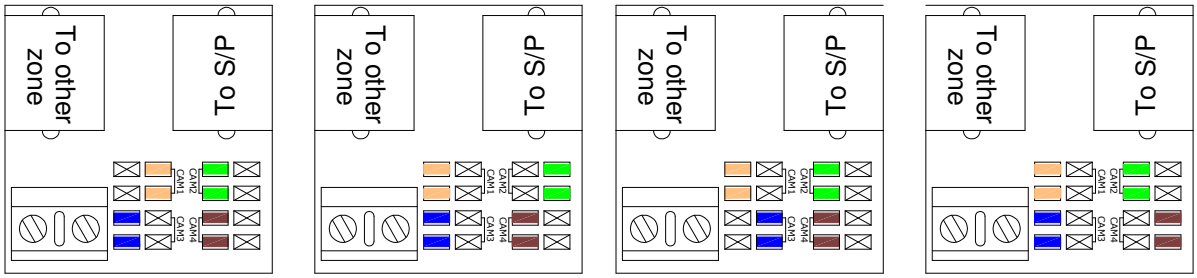
DB-4PF

Ring Connection DB-2RJ



DB-2RJ-1 DB-2RJ-2 DB-2RJ-3 DB-2RJ-4

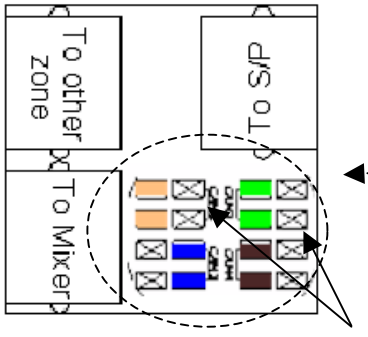
Ring Connection DB-2ST



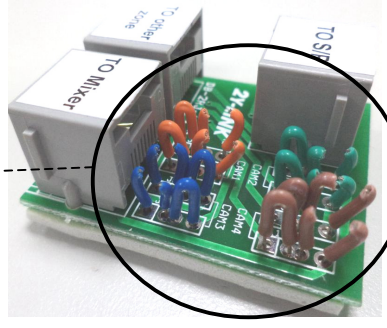
DB-2ST-1 DB-2ST-2 DB-2ST-3 DB-2ST-4

Channel Selection

Each serial connection distribution board can be used in either channel (1, 2, 3, or 4) by bridge wire cut ( ) . **Example for Channel 3**



bridge cut wire



Selective Cut the wire for channel connection

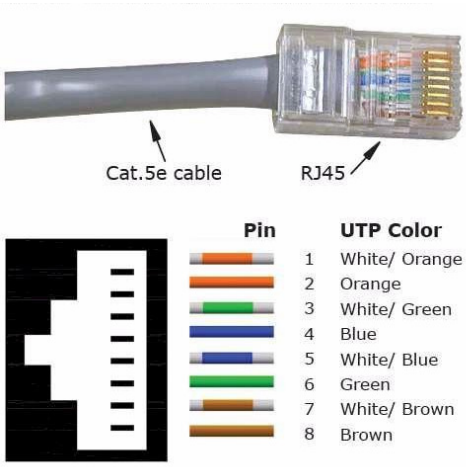
Cat.5 Cable Application

The Cable connecting RJ45 connector for Mixer to Signal Processor with Cat5 is as follows

To achieve best performance of the ***2Y-LINK*** System, the main points for **standard Cat.5 cable** must be noted as follows:

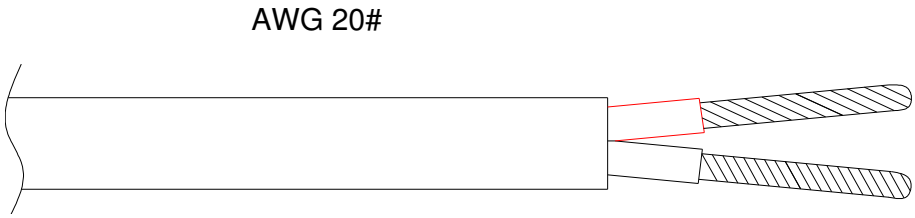
(1) DC resistance ⩽10 Ohm/100m(330ft)

(2) For Cat.5 cable wiring connection,RJ45 connector should be used according to usual computer network standard **TIA/EIA-568-B** as below:



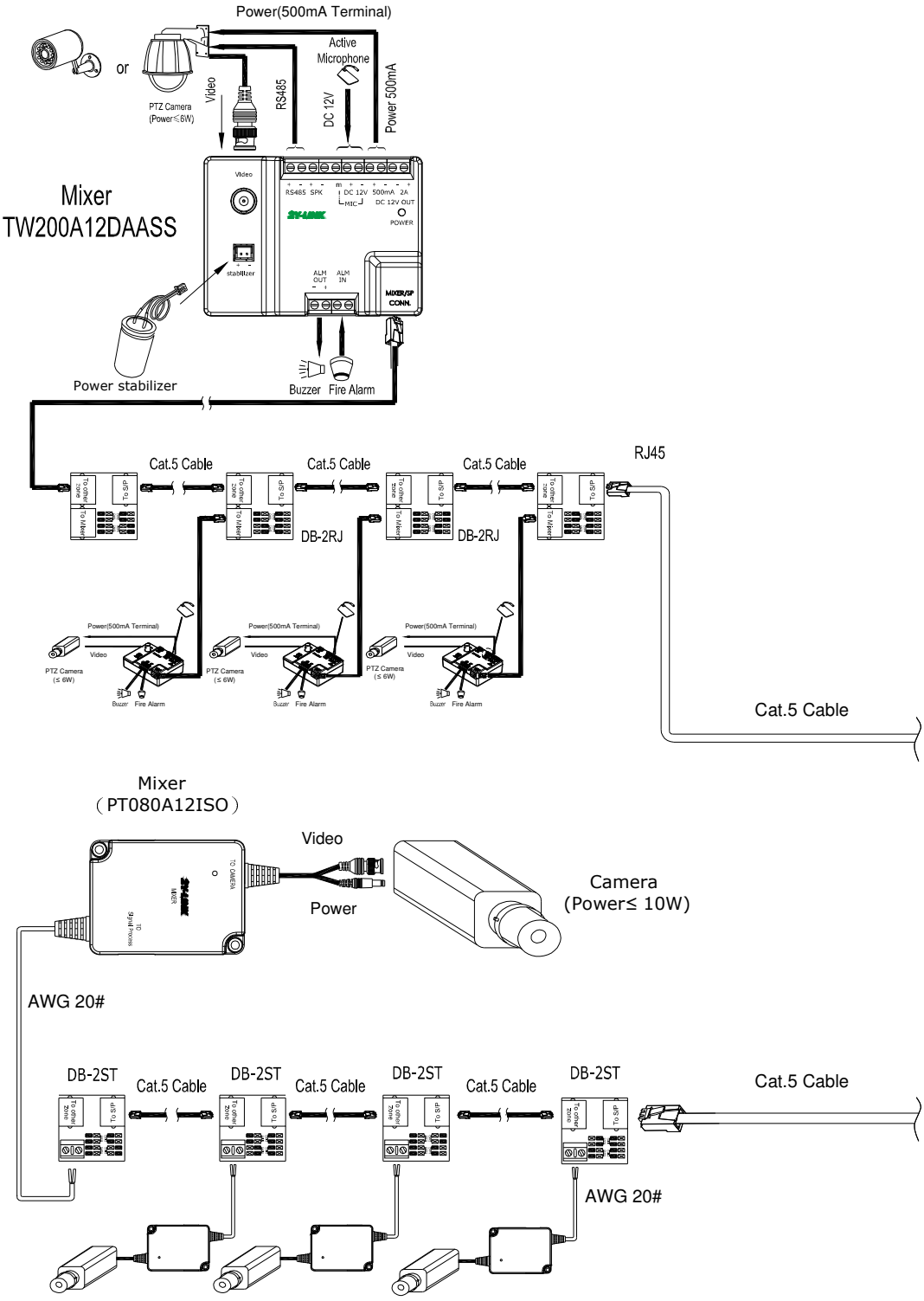
Cat.1 Cable (AWG#20) Application

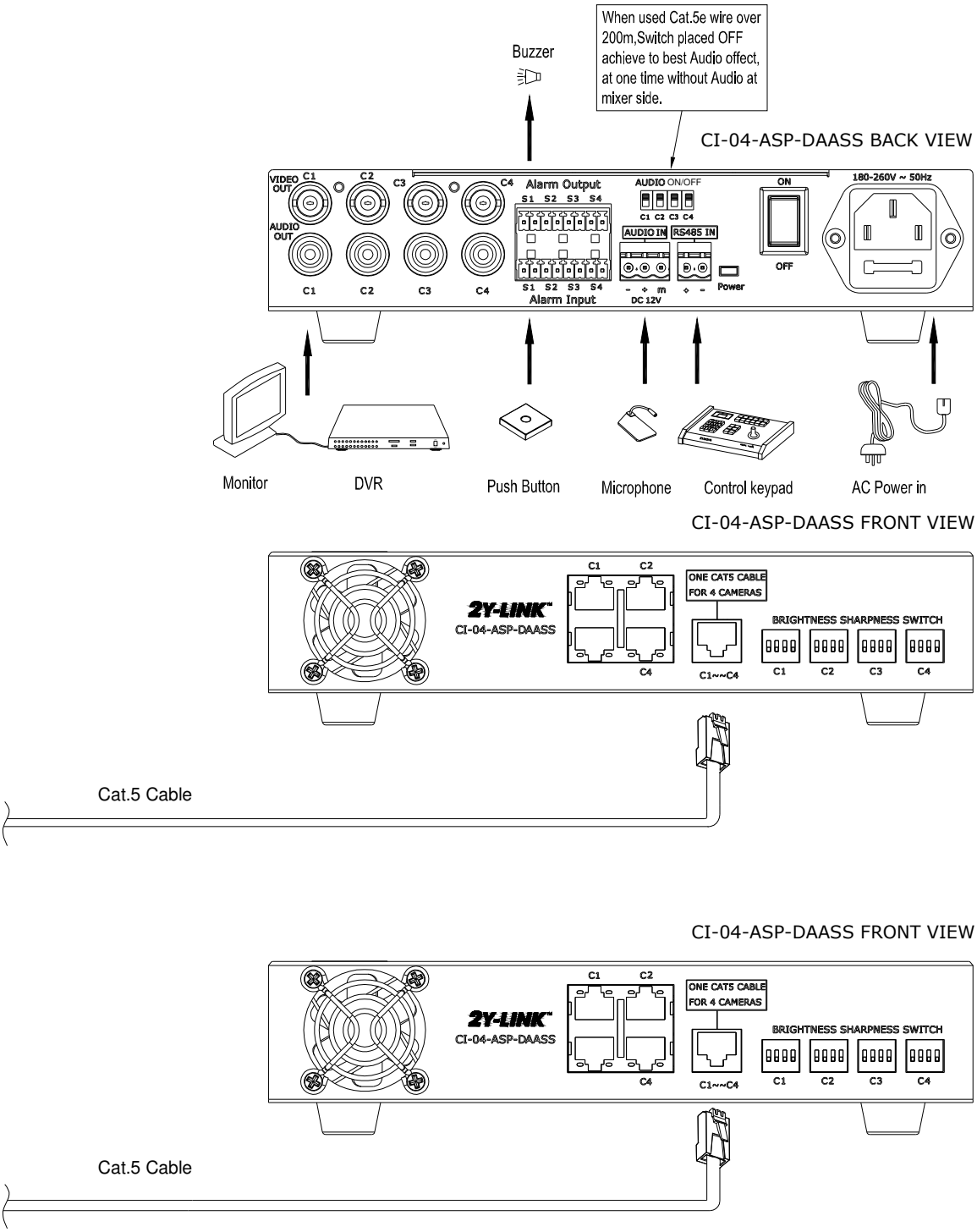
"Non-standard" Cat. 5 cable like the conducting wire made by copper plated steel wire is not suitable for use



Typical Wiring

Wiring diagram for One CAT,5 cable connect 4 low and medium power cameras (Each channel can transmit Video, Two-Way Audio, Two-Way Security /Alarm Signals and Control Data (RS485) signal for Ring method)



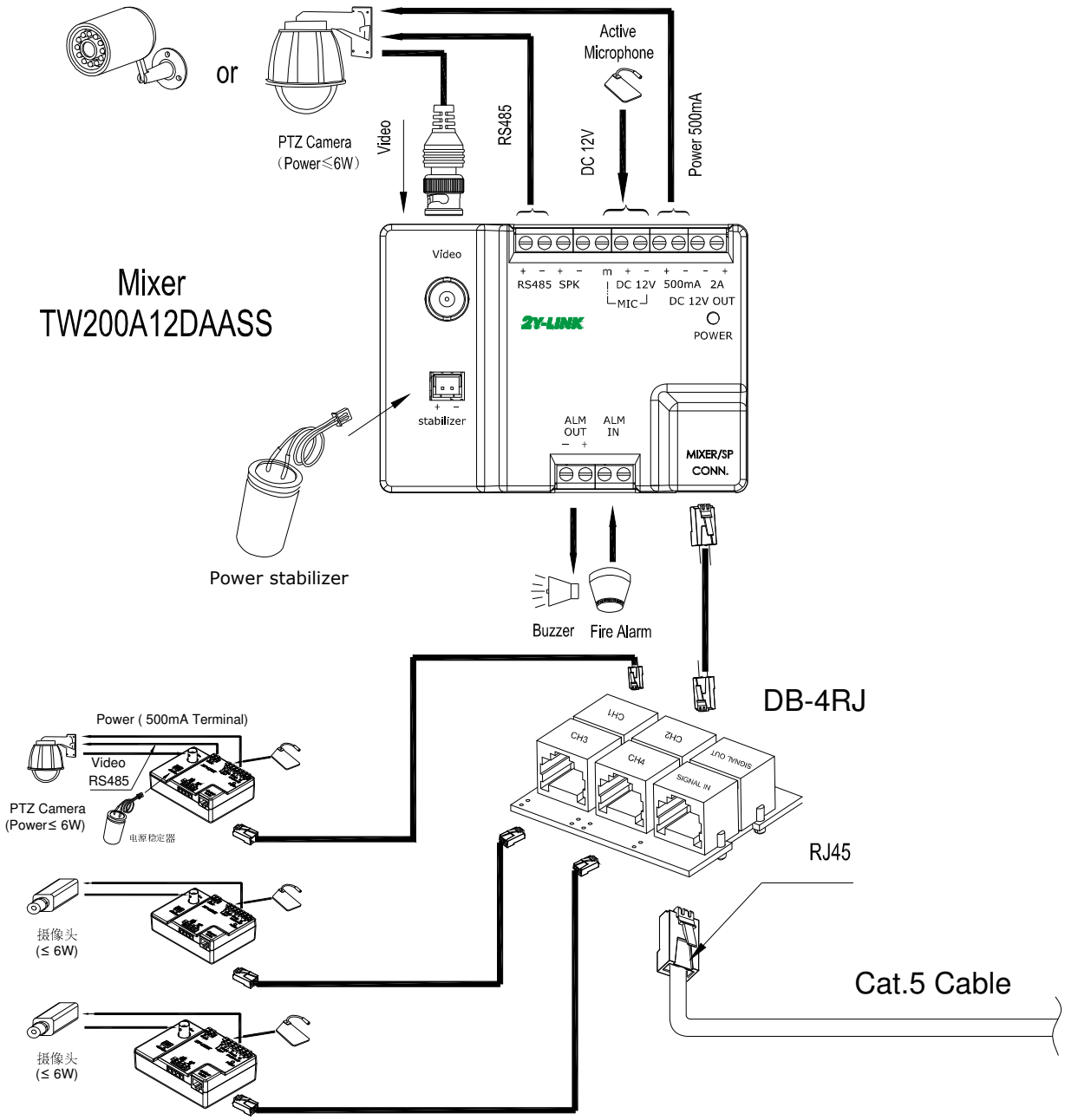


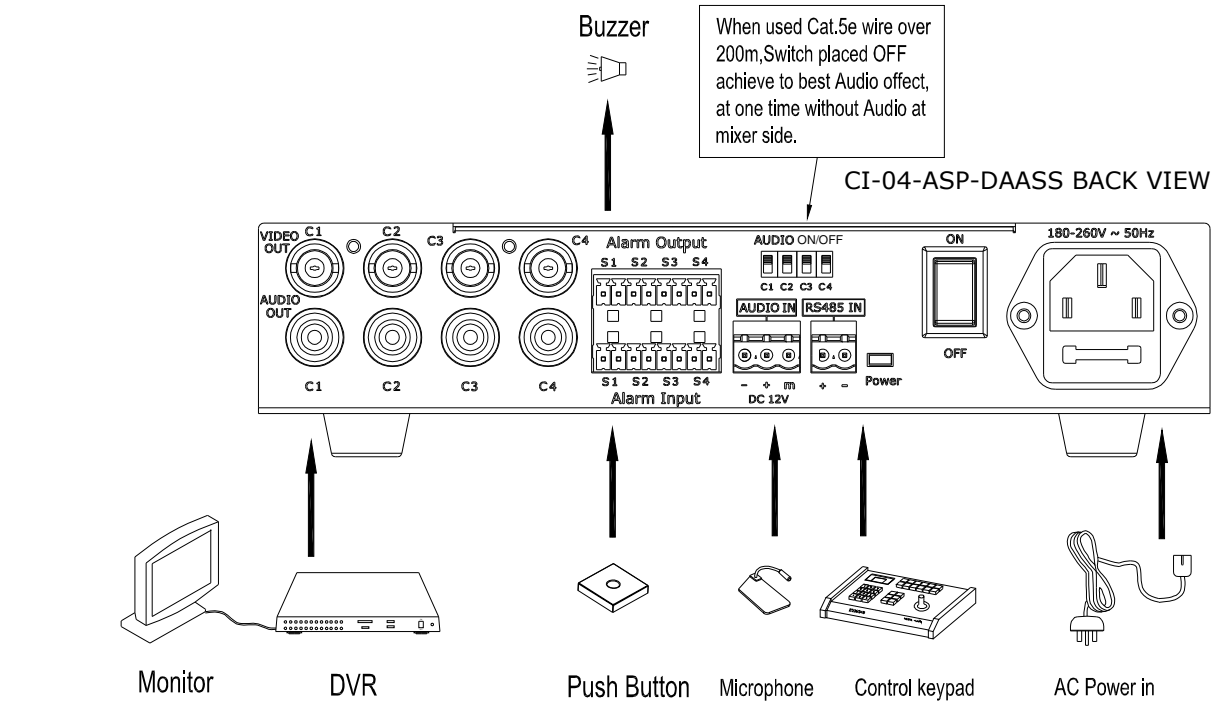
Camera power distance table(TW200A12DAASS &PT080A12ISO)

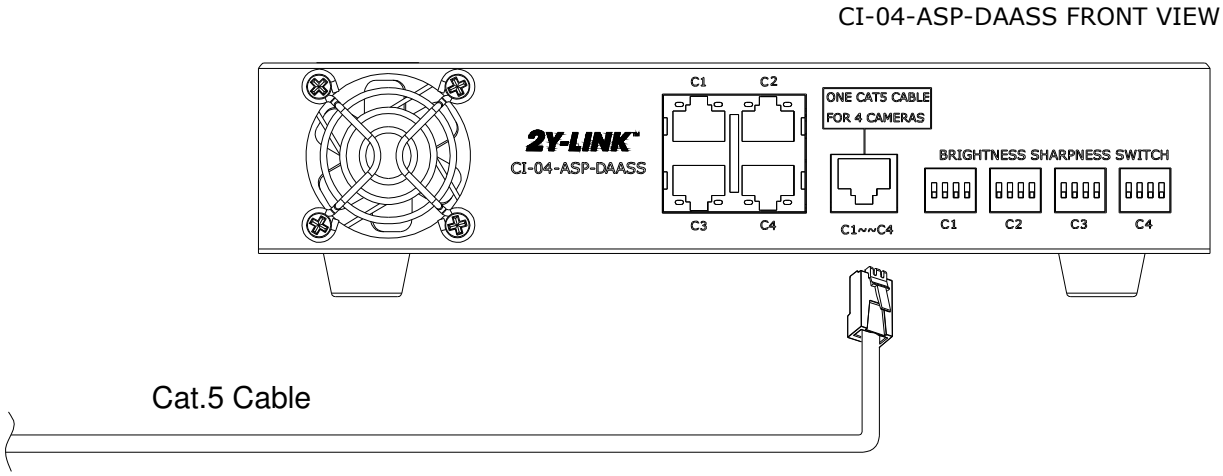
Camera power (12VDC)	**100~250mA (1.2 ~3W)**	**250~350mA (3 ~4.2W)**	**350~450mA (4.2 ~ 5.4W)**	**450~550mA (5.4 ~6.6W)**	**550~680mA (6.6 ~ 8W)**	**680~800mA (8 ~ 10W)**
Distance	⩽500m ⩽1640ft	⩽400m ⩽1312ft	⩽300m ⩽980ft	⩽200m ⩽656ft	⩽100m ⩽328ft	⩽50m ⩽160ft

Typical Wiring

Wiring diagram for One CAT,5 cable connect 4 low and medium power cameras (Each channel can transmit Video, Two-Way Audio, Two-Way Security /Alarm Signals and Control Data（RS485）signal for Star method)



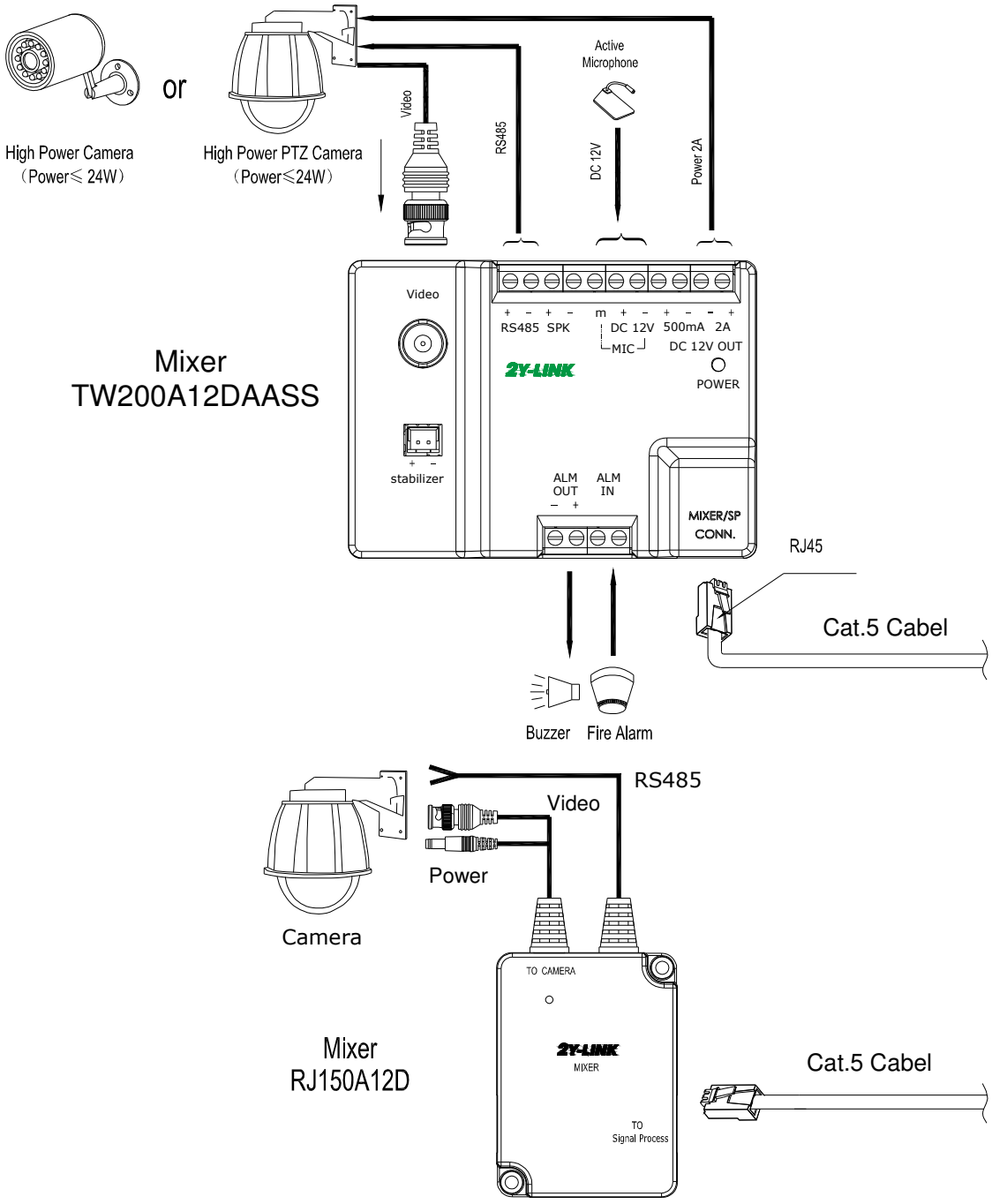


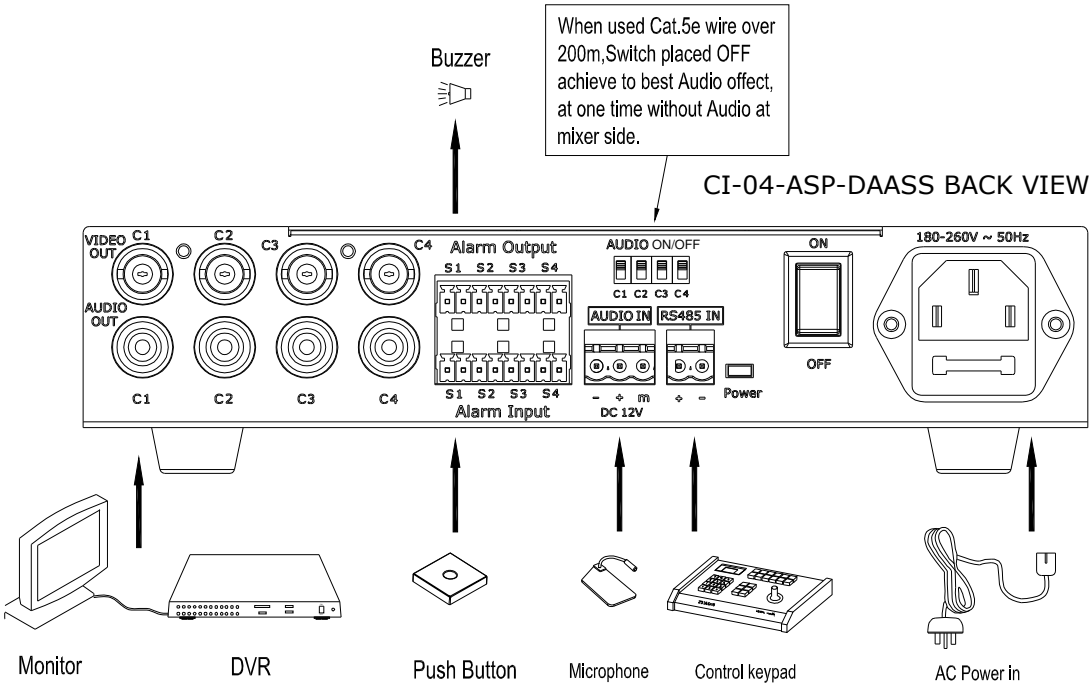


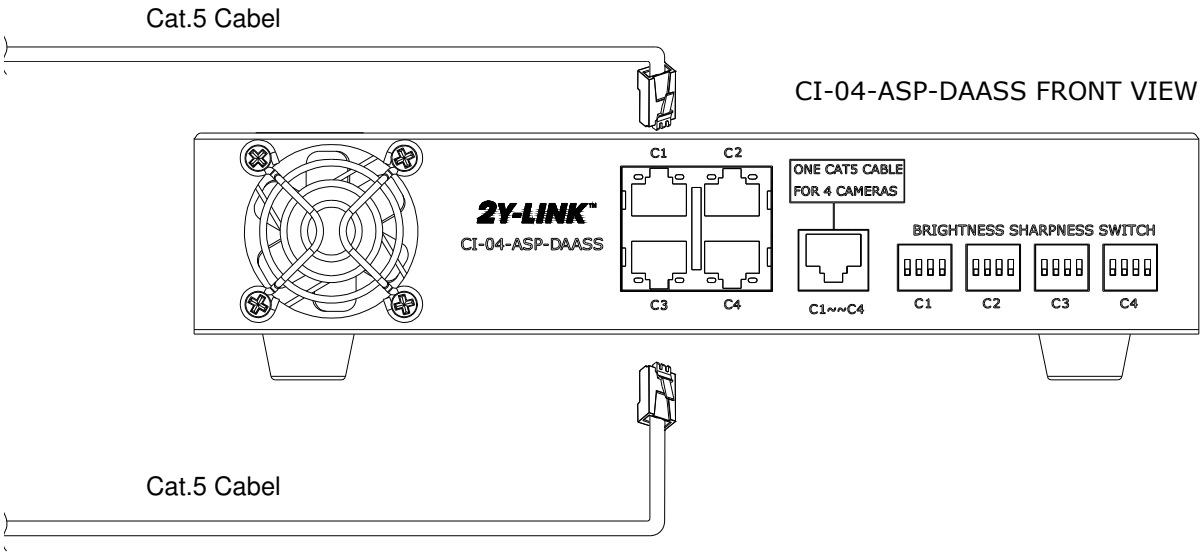
Camera power distance table(TW200A12DAASS)

Camera power (12VDC)	**100~250mA (1.2 ~3W)**	**250~350mA (3 ~4.2W)**	**350~450mA (4.2 ~ 5.4W)**	**450~550mA (5.4 ~6.6W)**	**550~680mA (6.6 ~ 8W)**	**680~800mA (8 ~ 10W)**
Distance	≤500m ≤1640ft	≤400m ≤1312ft	≤300m ≤980ft	≤200m ≤656ft	≤100m ≤328ft	≤50m ≤160ft

Wiring diagram for one Cat,5 cable connect a high power camera for MultiFunction transmission in long distance







Camera power distance table (TW200A12DAASS RJ150A12D)

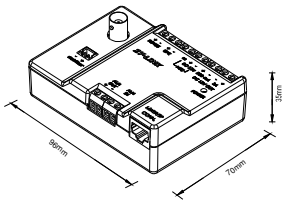
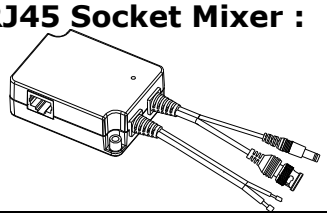
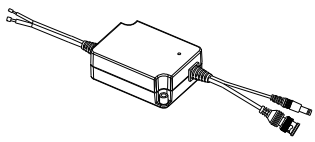
Camera power （12V DC）	**200~1000mA (2.4 ~ 12W)**	**1~2A(PTZ) (12 ~24W)**
Distance	≤500m ≤1640ft	≤400m ≤1300ft

Signal Processor Specification

Specification for Signal Processor CI-04-ASP-DAASS

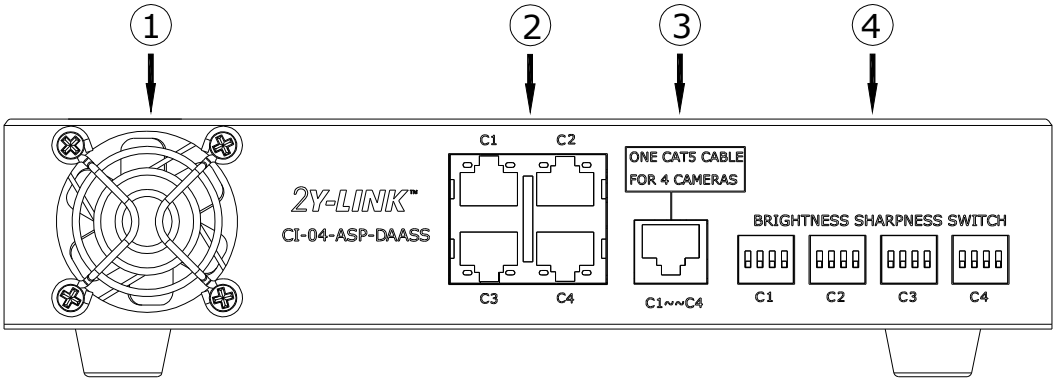
NO. of Channel	4 Channels
Each Channel Video Output	1.0 Vpp 75 ohm
Band Width	10MHZ
Max. Distance/Channel	Specified for different Mixer Models up to 1500m。
Connecting Ports	Front - RJ45 Sockets（2X2）(one Cat,5e connect a camera) RJ45 Sockets(1x1) (one Cat,5esupport 4 cameras) Back – BNC video output to DVR/ Monitor: RCA Audio Output to active loudspeaker Terminal Alarm signal input/output
AC Power Main	AC180~230V/50Hz
Operating Temperature	0^{o}C ~ +40^{o}C / 32^{o}F ~ 104^{o}F
Operating Humidity	10~80%
Case/Weight	STEEL / 1.4kg(3.1lb)
Dimensions	220mm(L)×180mm(W)×44mm(H)
Built-in Power Supply **(i) Maximum Power/Channel** **(ii) Total Power for 4 Channels**	(2A/DC12V) for one PTZ camera (6A/DC12V) for 4 cameras

MIXER Specification

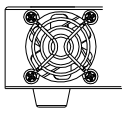
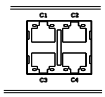
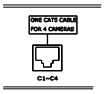
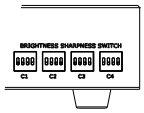
Video input (from Camera)	1.0 Vpp 75 Ohm
Power supply to camera (up to 24W)	DC 12V 2A As specified for the respective Mixer Model listed below
Band Width	10 MHz
MAX Distance	500m
Operating Temperature	-10°C ~ +50°C / 14°F ~ 122°F
Operating Humidity	10~95%
Multi-Function Mixer 	**TW200A12DAASS** Multi-function mixer： Connecting Ports Video input to mixer： Connection Model – BNC Socket Power supply to camera： Connection Model –Terminal Alarm input/output MIC output Speaker output RS485 input： Connection Model –Terminal
RJ45 Socket Mixer : 	**RJ150A12D** PVD Mixer up to 600m, DC 12V 2A to PTZ camera (24W) (suitable for one CAT.5 cable for one Camera)
Pig Tail Mixer (up to 800mA) 	**PT080A12** PV Mixer up to 500m, DC 12V 800mA to camera (10W) (suitable for one CAT.5 cable for four cameras)） If AWG20# cable is used, it can support 10W camera with distance up to 150m
Mixer Dimensions	TW200A12DAASS MIXER 96mm(L) × 70mm(W) × 34mm(H) RJ150A12D MIXER 65mm(L) × 48mm(W) × 25mm(H) PT080A12ISO MIXER 65mm(L) × 48mm(W) × 25mm(H)

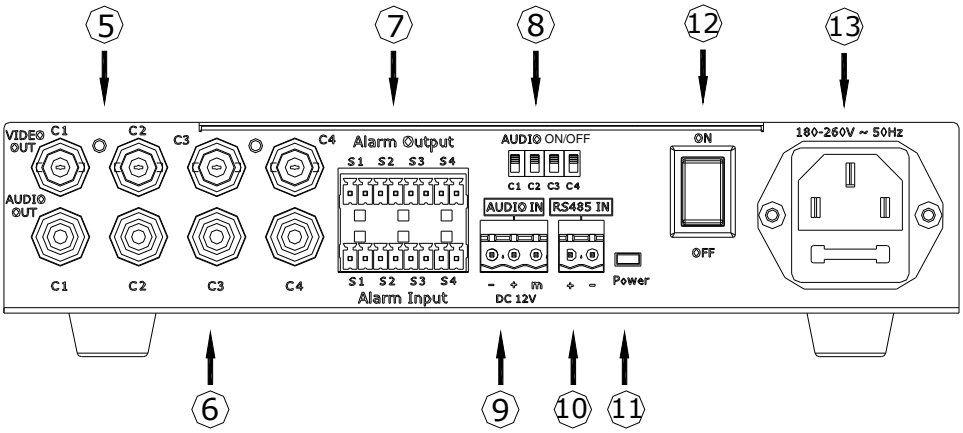
***Detail Overview*:**

Signal Processor CI-04-ASP-DAASS

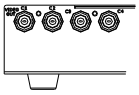
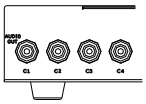
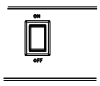
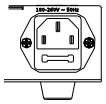


CI-04-ASP-DAASS FRONT VIEW

Item	Icon	Description	Usage or Purpose
①		Fan	For cooling the Power Pack built-in the signal processor.
②		Power,Video,& DATA (RJ45 sockets) Video(Green LED ON) Over Loading(Yellow LED ON)	For connections to Mixer for transmission of Power, Video Audio,Alarm and Data Signals
③		Power & Video RJ45 Socket (4 Camera/per Socket)	For connections to 4 Mixers/Cameras for transmission of Power and Video with one Cat.5 Cable
④		Brightness/Sharpness Switches	For adjusting the Brightness/Sharpness (Colour) of the images on the CCTV monitor



CI-04-ASP-DAASS BACK VIEW

Item	Icon	Description	Usage or Purpose
⑤		Video Outlet (BNC plug)	For connecting to DVR or CCTV Monitor
⑥		Audio Outlet (BNC plug)	For connecting to DVR or CCTV Monitor For connecting to Audio amplifier with input impedance 10K-40K ohm
⑦		Alarm Output/Input Terminals	To indicate the status of alarm output at Mixer side and 12V/50mA diver capability for per channel For Connecting to security/Fire alarm signals normal open
⑧		One/Two way Audio Option Switch	Selectable of talk-back Signal Processor and Mixer. NO:Two way communion of the SP and Mixer Audio transmit distance up to 200m with Cat.5e Cable. OFF:Only Signal Processor receive mixer audio signal and transmit disance up to 500m with Cat.5e Cable.
⑨		Microphone Terminals	2Y-LINK Mixer Microphone or Microphone with Output impedance 600-3000 Ohm and DC operating voltage 9-15 Volt
⑩		RS485 Signal from Data controller (I/O Terminals)	For connecting to Data Control unit for controlling PTZ Camera
⑪		Power LED Indicator	To indicate that the power switch is on and the AC power, fuse and AC power cord are in proper working condition
⑫		Power Switch	AC Power ON/OFF Switch
⑬		AC Power Socket with fuse	Connecting AC Power Cord to the Socket with built-in 4A Fuse

Trouble Shooting

	Problems	Possible Causes	Corrective Actions
1	No video signal; No colour picture; Pictures in irregular shape.	The power rating of the camera and /or the transmission distance do not match with the specifications 。	To follow “camera power distance table” in Typical Wiring section for the system setup. 。
2	Picture brightness too bright, Video loss or too dark.	The brightness / Sharpness (Colour) control switches (dip switches) are not put in proper positions.	To set the brightness / Sharpness (Colour) control switches (dip switches) proper positions
3	Pictures with irregular horizontal lines interruption.	Either the Camera or CCTV monitor is not grounded or not properly grounded.	To make sure both Camera and CCTV Monitor are properly grounded.
4	The LED lights in RJ45 sockets and Power indicator are on, but there is no picture shown on the monitor screen.	The signal processor video output cable or socket is not properly connected to the DVR or Monitor.	To make sure the signal processor video output cable or socket is not properly connected to the DVR or Monitor.。

LIMITED WARRANTY

- This product is warranted against defects in material or workmanship for the time periods
- Limited warranty covers only those defects that arise as a result of normal use of the product and does not cover any other problems, including those that arise as a result of: (i) improper maintenance or modification; (ii) parts or supplies not provided or supported (iii) operation outside the product's specifications; or (iv) unauthorized modification or misuse.
- SHALL NOT BE LIABLE FOR THE LOSS OR DESTRUCTION OF VIDEO IMAGE OR DATA RESULTING FROM THE USE OR SERVICE OF THIS PRODUCT, WHETHER DUE TO VIRUS ISSUES OR OTHERWISE, OR ANY FAILURE TO SECURE ALL VIDEO IMAGE AND DATA TRANSMITTED OR AFFECTED BY THE PRODUCT OR TO MAINTAIN THE CONFIDENTIALITY OF VIDEO IMAGE OR DATA TRANSMITTED.