# VGA & Stereo Audio, Digital Audio CAT5 Extender

ITEM NO.: VE02DA

VE02DA is designed for VGA +Stereo Audio, Digital Audio signal over cost effective CAT5 cable to instead of VGA and Audio cable. This AV Extender is the smart, fast and cost-effective, eliminates costly and bulky VGA and Audio cable and the most efficient way to move multimedia content from player to display. Used in pairs, the VGA & Audio Extender is used in Shopping malls, public address systems, airports, train & bus station, boardrooms, trade shows, computer based training application.

VE02DA   VGA with Stereo audio, Digital Audio CAT5 Extender

- Extends VGA and stereo audio /digital audio over one UTP CAT5 cable.
- Support analog stereo audio and digital audio.
- Digital transmission on analog stereo audio for sound undistorted.
- Supports up to 1600x1200 @85Hz.
- Long range transmission up to 300 meters (Max.).
- Dual output at local unit: 1 VGA loop output for local site, plus 1 CAT5 RJ45 output for remote site.
- Built in equalization, gain adjustment at remote unit.
- Local unit VE02DAT local output: supports DDC、DDC2、DDC 2B,and provides virtual DDC, DDC backup function, to avoid wrong setting at high resolution/frequency and cause remote monitor unable display.
- Local unit VE02DAT: audio input support stereo audio, digital audio LPCM 44、48、96Khz、AC3 (Dolby Digital)、DTS.
- Remote unit VE02DAR: support LPCM 44.1K、48K、96K / 16bit stereo decode function, digital and analog could simultaneously output. Dolby Digital (AC3) and DTS digital output supported.
- Application for airports, train & bus stations, window display, trades shows, exhibitions.
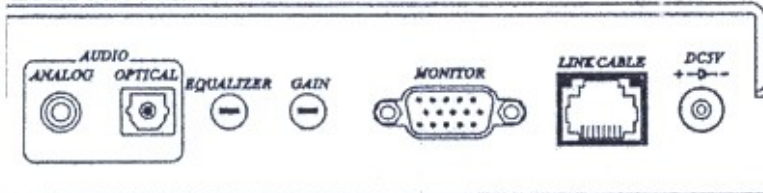- Each set including local and remote unit, power supply included.

Installation View:
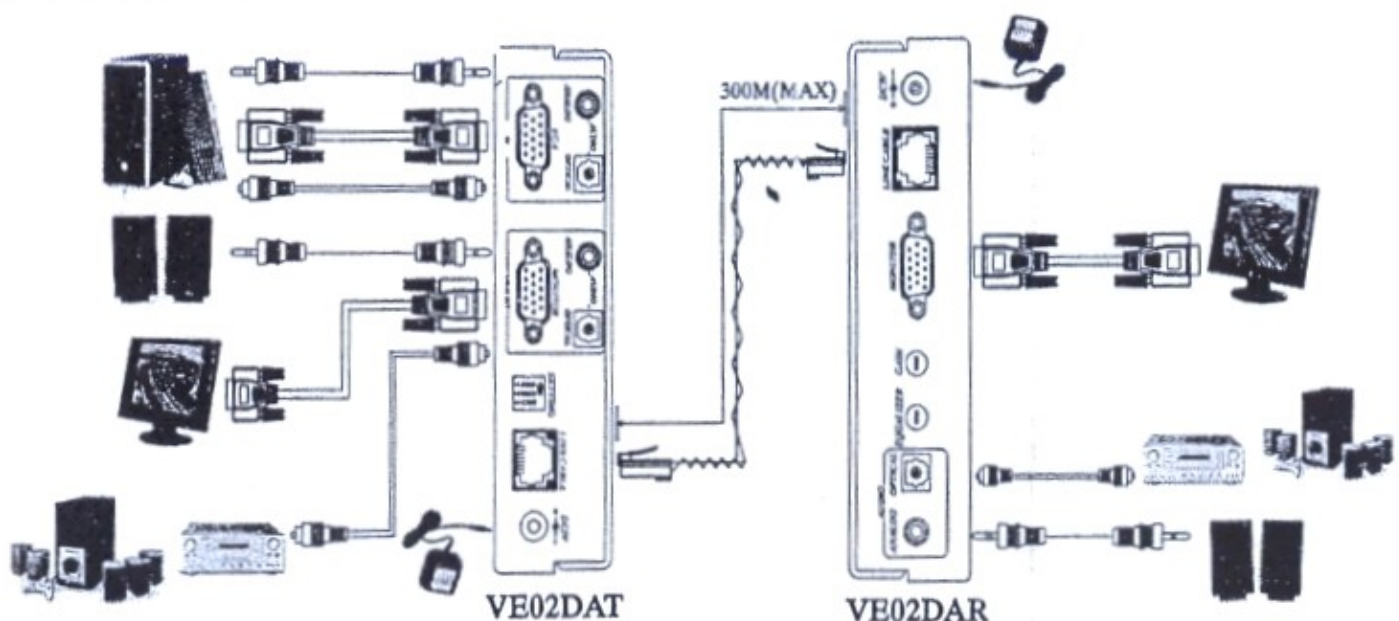
VE02DAT   VE02DAR

anel View:

E02DAT LOCAL UNIT
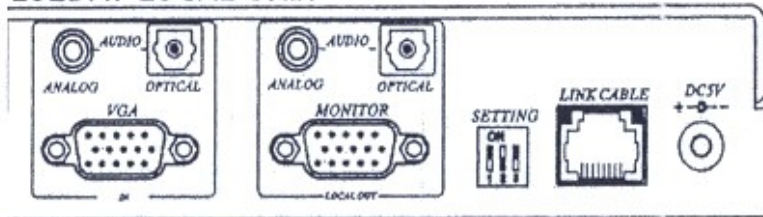
E02DAR REMOTE UNIT

Cable:
Video Link cable using hi quality CAT5E UTP/STP or CAT6 UTP cable.
Please noted STP cable could enhance noise rejection, but also less transmission range and picture sharpness quality.

RJ45 Define:
Link Cable (TIA/EIA-568-B)
1. Orange-white   Red +
2. Orange   Red -
3. Green-white   Green +
4. Blue   Audio -
5. Blue-white   Audio +
6. Green   Green -
7. Brown-white   Blue +
8. Brown   Blue -

VE02DAT local Unit Switch Setting:
DIP Switcher Setting
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1	Audio Source Select
↓	select stereo audio input (Analog Audio)
↑	select digital audio input (Optical)

2 3	DDC Select
↓ ↓	setup built in DDC (1280x1024@75Hz Max)
↑ ↓	setup DDC of local monitor
↓ ↑	setup DDC backup of local monitor
↑ ↑	backup DDC of local monitor

VE02DAT LED:
Blue (front panel): power on/off

RJ45 LED (Link cable connector):
Green: digital audio
Yellow: status (Refer the below)

Yellow LED status indication:
Not light: Normal
Light: Waiting local Monitor connection (duplication DDC mode)
Blink one time: Finish DDC backup (duplication DDC mode)
Blink two times: Monitor DDC reading error (duplication DDC mode)

Blink three times: DDC check sum error
Blink four times: Memory read error
Blink five times: Memory writes error
Blink six times: Memory verify error

VE02DAT Duplicate DDC step:

1. Dip switch 2 & 3 at "up" position, if the local unit VE02DAT already connected the local monitor; please jump to the third step.

2. If local unit VE02DAT not connects with local monitor yet, the yellow LED will keep light to wait local monitor connection.

3. After few seconds will finish DDC duplication, then yellow LED will be off.

4. If the duplication successful, the yellow LED will blink one time. If failed, yellow LED will blink several times, please refer to above "Yellow LED status indication"

5. Please unplug the local monitor after finish the DDC duplication, and move dip switch 2 at "down", 3 at "up", then start to use DDC data which have been duplicated.

VE02DAR Remote unit adjustment:
EQ   equalization (sharpness)
Gain   signal boost (brightness)

VE02DAR LED:
Blue (front panel): power on/off

RJ45 LED (Link cable connector) :
Green: digital audio

Caution:
The cabling must away from any equipment with electromagnetic wave, i.e.: microwave, radio equipment, high voltage lines.

Specification:

| ITEM NO.	VE02DAT
Resolution	Up to 1600 x 1200 non-interlaced to 85 Hz
Video Bandwidth	Local 750MHz / Remote 350MHz
Video Input / Output	RGB Analog, 75Ω, 0.7Vp-p
Sync Input / Output	H/V Separated, 5V TTL
Horizontal Frequency	30-95 KHz
Vertical Frequency	50-180 Hz
VGA Connector	15-pin Mini D-Sub (High Density)
Analog Audio Input / Output	10KΩ, 3Vp-p (Max)
Analog Audio Bandwidth	20-20KHz
Analog Audio Connector	3.5mm Stereo Phone jack
Digital Audio Connector	Optical
Link Connector	RJ-45
Max Distance	Up to 1000 ft. (300M)
Power Supply	5V DC 2000mA Regulated (External)
Power Consumption	500mA (Max)
Dimensions (mm)	1145x 96 x 37
Weight (g)	350

ITEM NO.	VE02DAR
Resolution	Up to 1600 x 1200 non-interlaced to 85 Hz
Video Bandwidth	150MHz
Video Output	RGB Analog, 75Ω, 0.7Vp-p
Sync Output	H/V Separated, 5V TTL
Horizontal Frequency	30-95 KHz
Vertical Frequency	50-180 Hz
VGA Connector	15-pin Mini D-Sub (High Density)
Analog Audio Output	10KΩ, 3Vp-p (Max)
Analog Audio Bandwidth	20-20KHz
Analog Audio Bandwidth	20-20KHz
Analog Audio Connector	3.5mm Stereo Phone jack
Digital Audio Connector	Optical
Link Connector	RJ-45
Max Distance	Up to 1000 ft. (300M)
Power Supply	5V DC 2000mA Regulated (External)
Power Consumption	600mA (Max)
Dimensions (mm)	145W x 96H x 37D
Weight (g)	330

Installation Tips:

1. Due to the inside of CAT5 cable that the pairs of wires are twisted at different rates, AND the different quality on cable itself and installation that will cause different signal arrival time at each pair. If there are big different at arrival time, that will cause RGB skew status. This is seen on the monitor as separation, or lack of convergence in colors. Normally it happens on long CAT 5 cable runs.
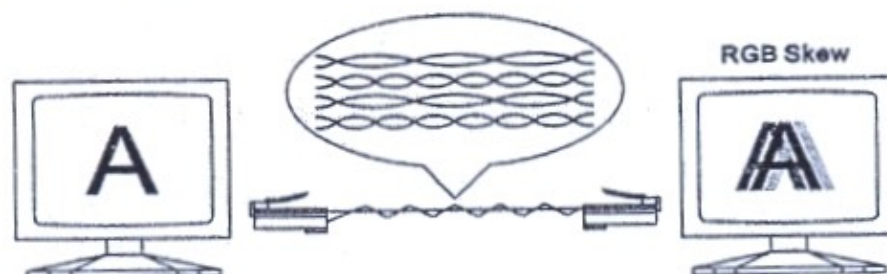
2. Recommend to use following cabling way to reduce skew status, to add special made "skew immunized adaptor", 2 pieces included at the package.
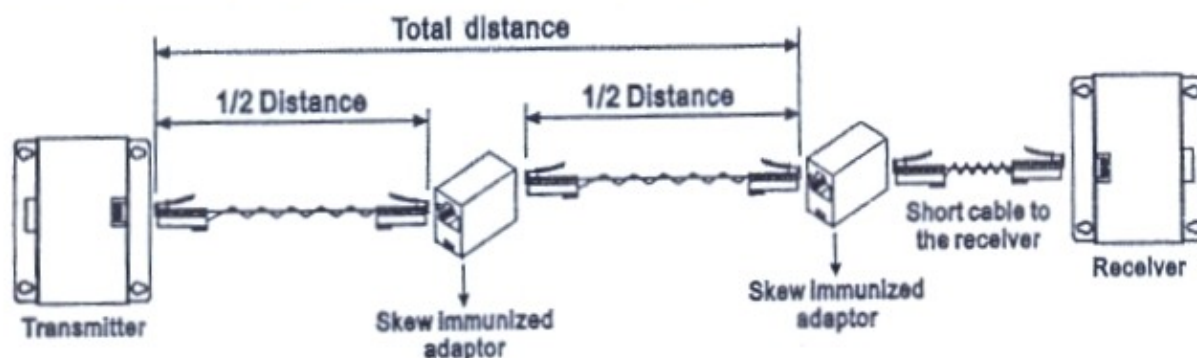
CAUTION: to avoid display equipment damaged, be sure to make correct cable connection and power for both VE02DAT before connecting VE02DAR.