DVI Repeater

User Manual

Model : **DKM01**

DVI USB/Audio/RS232 CAT5e KVM Extender

Introduction

DKM01 is a DVI extender that can not only carry DVI signal but USB, analog audio, RS232 ones using a cost-effective Ethernet cable with transmission distance up to 140M. You can easily control a PC where is far away from you while having an additional DVI monitor along side using the loop-out port at TX unit. It is an ideal solution for industrial, hospital, and education fields.

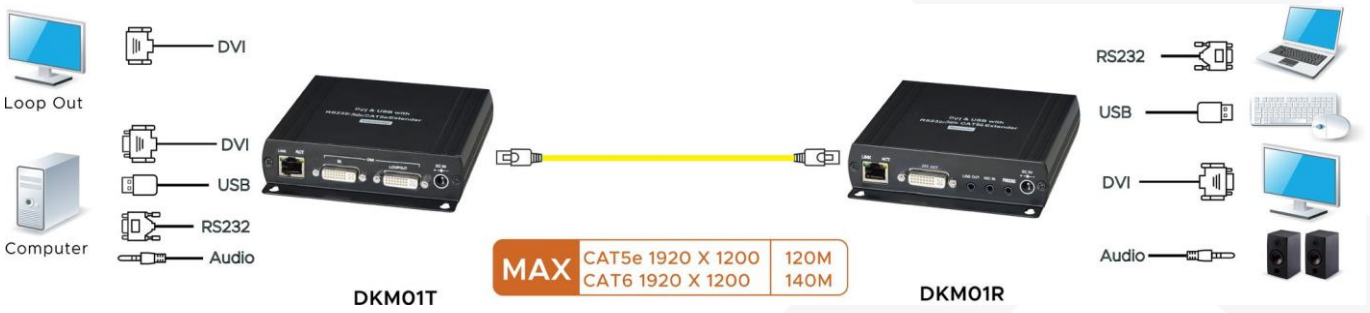
Features

- Resolution up to 1080p or 1920x1200@60Hz.
- Signal extension up to 140M over CAT6, 120M over CAT5e.
- Built in DVI loop-out port at TX unit..

Optional Model: SR01X Gigabit Ethernet Repeater

- Extend TCP/IP signal for extra 120meters.
- Chainable with multiple SR01X for long distance transmission.
- Plug and play for easy installation.

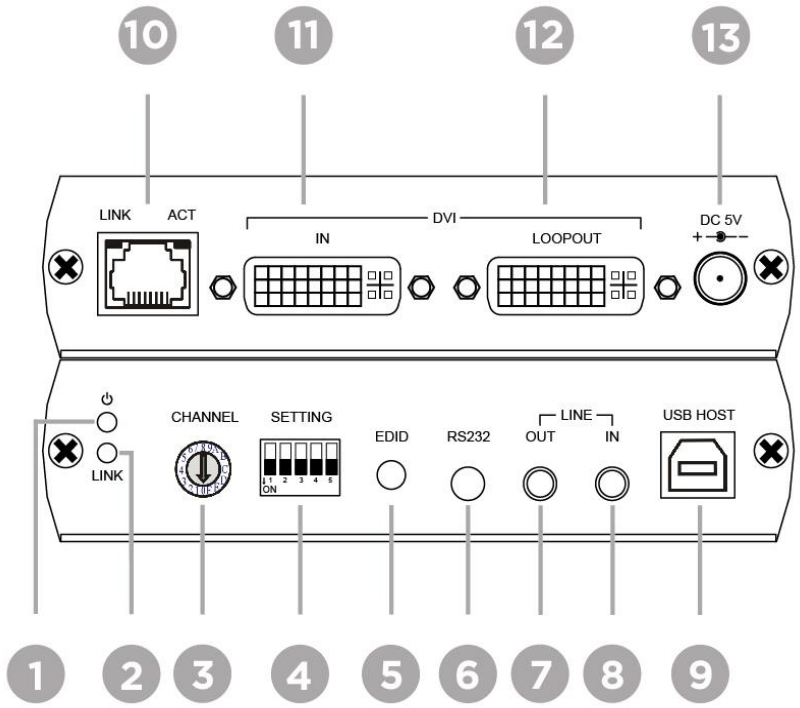
Installation view



Work with SR01X Gigabit Ethernet repeater

Panel View

DKM01T



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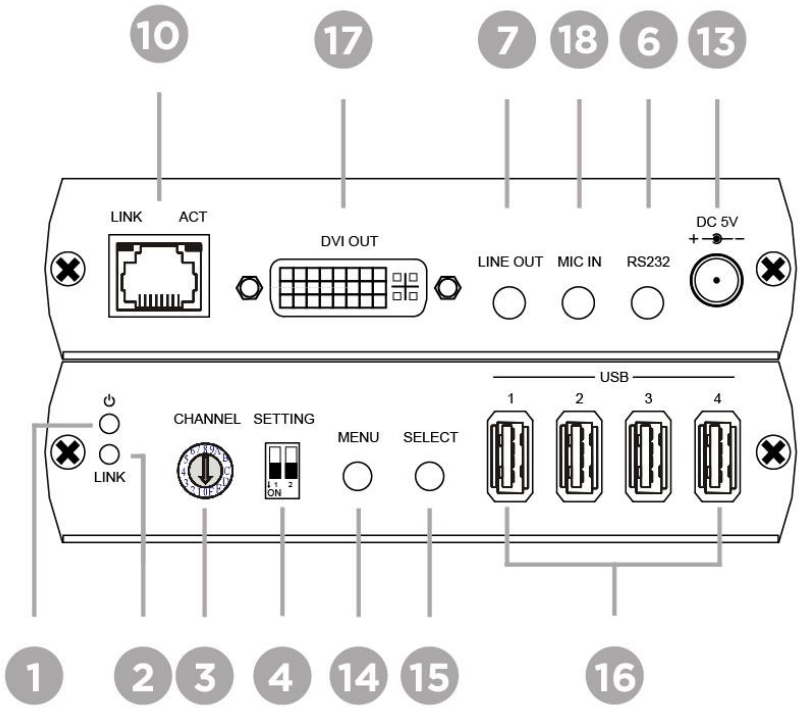
No.	Interface	Function
1	Power LED	To Indicate the status of power
2	LINK LED	To Indicate the status of data transmission
3	Rotary Switch	To set up the grouping function
4	DIP Switch	To set up the grouping, EDID, RS232 functions
5	EDID	To set up EDID function
6	RS232	To connect a RS232 device
7	LINE OUT	To connect a 3.5mm jack for a speaker
8	LINE IN	To connect a 3.5mm jack for a microphone
9	USB HOST	To connect an USB-B cable
10	RJ45 Connector	To connect a DKM01T/R
11	DVI IN	To connect a DVI source
12	DVI LOOPOUT	To connect a DVI display
13	Power Jack	To connect a DC5V 2A power adapter

DKM01R



No.	Interface	Function
14	MENU	To check the status of MAC, IP, Baud Rate and EDID
15	SELECT	To set up Baud Rate
16	USB	To connect 4 ports of USB devices (ie. Keyboard, mouse)
17	DVI OUT	To connect a DVI display
18	MIC IN	To connect a 3.5mm jack for Microphone

Description

1 LED Indication Status:

Power On	Link On
Green ON	Blue On

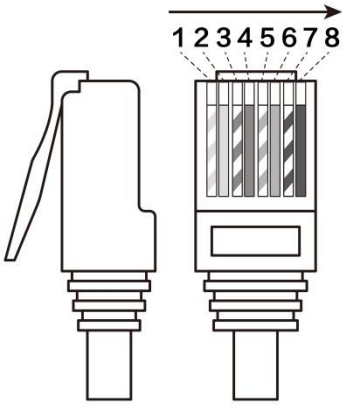
2 RJ45

2.1 RJ45 Indication Status:

Link On	Data Transferring
Green ON	Yellow On

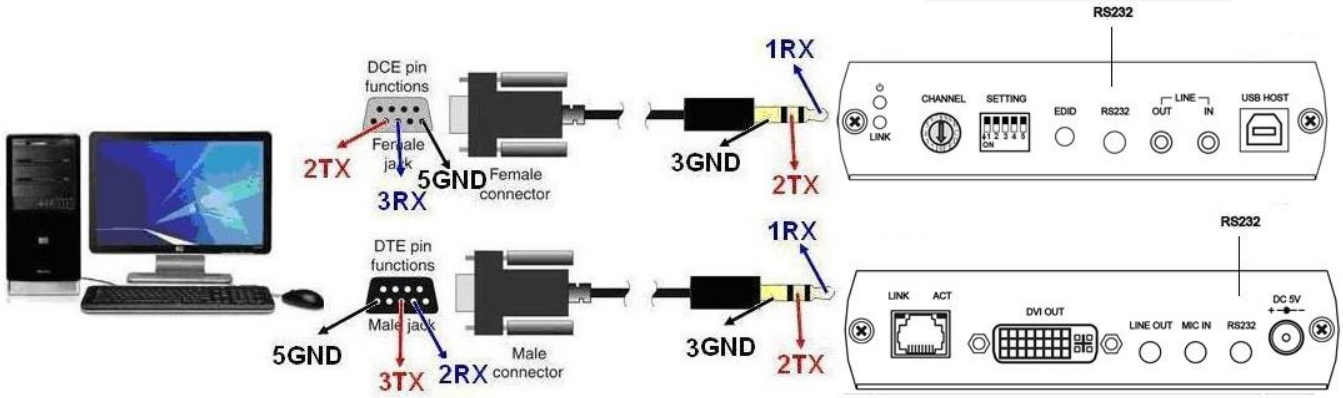
2.2 RJ45 Pinout

Pin	Color	Data
1	Orange-white	DATA0 +
2	Orange	DATA0 -
3	Green-white	DATA1 +
4	Blue	DATA2 +
5	Blue-white	DATA2 -
6	Green	DATA1 -
7	Brown-white	DATA3 +
8	Brown	DATA3 –



3 RS232

3.1 RS232 Define



DB9 (F)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	TX	Pin 1	RX
Pin 3	RX	Pin 2	TX
Pin 5	GND	Pin 3	GND

DB9 (M)/3.5mm STEREO PHONE JACK

RS232		3.5 mm Phone Jack	
Footprint	Define	Footprint	Define
Pin 2	RX	Pin 1	RX
Pin 3	TX	Pin 2	TX
Pin 5	GND	Pin 3	GND

3.2 RS232 Baud Rate Setting

3.2.1 Enable RS232 function

DKM01T		
SWITCH	RS232 / Settings	
SW2	RS232 On (Default)	OFF ↑
SW3		OFF ↑

DKM01R		
SWITCH	RS232 / Settings	
SW2	RS232 On (Default)	OFF ↑

3.2.2 Press “Menu” button of Rx (DKM01R) to select “Baud Rate”

3.2.3 Press “Select” button of Rx (DKM01R) to choose Baud Rate parameter

3.2.4 Press “Menu” button again to confirm the parameter

3.2.5 Supported Baud rates: 115200, 38400, 19200, 14400, 9600, 4800, 2400, 1200

4 Grouping

4.1 Set up the switch of Tx and Rx (DKM01T/R) to choose a group.

SWITCH	Group / Settings			
SW1	Group 0	OFF ↑	Group 1	ON ↓
SW2		OFF ↑		OFF ↑

4.2 Set up the rotary switch (the switch of Tx and Rx should be at the same position)

(Up to 32 pairs of Tx and Rx can be set)

4.3 Remove the power jack and plug it in again.

5 EDID Copy

Based on your requirement, you can set up EDID from either TX or RX.

5.1 Remove all the DVI cables.

5.2 Set up the DIP switch of Tx.

SWITCH	EDID Mode / Settings					
SW4	1080p (Default)	OFF ↑	Copy the resolution from Rx side	ON ↓	Copy the resolution from TX loop out side	OFF ↑
SW5		OFF ↑		OFF ↑		ON ↓

5.3 Press EDID Button of the DKM01T to confirm the change.

5.4 You can also set up EDID from RX (DKM01R) to copy the resolution of connected monitor from RX side as below.

Step 1	Press “MENU” button from RX to select EDID.
Step 2	Press “Select” button from RX to confirm the change.

Trouble Shooting

1. We strongly recommend using high quality CAT5e, CAT6 UTP/STP/FTP cable. Improper installation may cause unstable connection, and video & audio interruption.
2. DKM01 transmission data rate up to 850Mbps Max.
3. Do not connect general LAN to avoid data transmission slow down other LAN devices. 。
4. Analog audio of Rx (MIC IN) is mono sound for microphone use only, not stereo audio (Line in)
5. Every port of USB at receiver side has max output power at 500mA, and 4 ports of USB can

output up to 1500mA.

Package Include

No.	Item	Amount
1	DKM01T (Tx)	1
2	DKM01R (Rx)	1
3	USB A/B cable	1
4	DB9 male to 3.5mm phone jack cable	1
5	DB9 female to 3.5mm phone jack cable	1
6	DC 5V 2A power adapter	2
7	Screw	8
8	Screw plug	8
9	Rubber gasket	2

Specification

ITEM NO.	DKM01T	DKM01R
Support		
Compliance	HDCP 1.4, USB 2.0, USB 1.1, USB 1.0	
Max. Video Resolution	1920 x 1200@60 Hz	
Max. Transmission Distance	140M over CAT6 or Greater	
Video Bandwidth	10.2 Gbps	
Ports & Interfaces		
Video Input	1 x DVI-D (Digital Only)	1 x RJ45
Video Output	1 x RJ45	1 x DVI-D (Digital Only)
Video Loop-out	1 x DVI-D (Digital Only)	
Analog Audio Input	1 x (3.5mm) Stereo Phone Jack (Line In)	1 x (3.5mm) Stereo Phone Jack (Mic In)
Analog Audio Output	1 x 3.5mm Stereo Phone Jack	1 x 3.5mm Stereo Phone Jack
USB Interface	1 x USB 2.0 Type B	4 x USB Type A
RS232 Interface	1 x (3.5mm) Phone Jack	1 x (3.5mm) Phone Jack
Power		
Power Supply	DC 5V 2A	DC 5V 2A
Power Consumption	1000mA	400mA
Ambient Temperature		
Operation	-20 to 60°C	
Storage	-20 to 85°C	
Humidity	Up to 95%	
Physical Characteristics		
Dimensions	125 x 140 x 30mm	125 x 140 x 30mm
Weight	400g	385g

RoHS CE FC