

## FULL HD - KVM EXTENDER OVER IP Tune in the easy KVM World

KVM Extender over IP in dual DVI, DVI-D,  
KVM Extender VGA & KVM Extender USB in FIBER

masterEASY dual is a highly optimized KVM Extender over IP for distances up to 160km/99mi with a resolution of 1920x1200@60Hz and is available in Fiber. masterEASY KVM Extender convince with an ultra flat housing - 4 dual units (8 video streams) in 1 RU, have embedded sound and are compatible with standard Network components. Video sharing, USB sharing, multihead.

### ... masterEASY dual FIBER

- DVI-D/ USB2.0, VGA Opt KVM Extender over IP
- dual in Fiber
- max resolution 1920 x 1200 @60 Hz
- max distance 160km
- 4 dual masterEASY KVM Extender in 1RU
- for point to point or Matrix Switching Systems with Switch (Layer 3)
- Sound embedded
- Full HD Videos in real time
- USB transmission rate max 480Mbit/s
- only one cable for USB & Video
- DVI extension without loss of quality
- Feature - freeze last image
- Local/CPU -Remote/CON Monitor Output
- upgrades: sound & USB

### USB 2.0 in house development

The in-house developed USB 2.0 implementation supports typical USB devices like touch screens, sound modules, printers and alike components. On top the support for memory devices such as thumb-drives and USB HDDs can be enabled or disabled on demand providing another layer of security. And of course keyboards and mice are supported, too.

### Bandwidth reduction

Mastereasy allows limiting the transmission bandwidth limitation in nine fix steps. This allows to managed network utilization by reducing operational performance. Depending on the use case, this might not even have a recognizable impact (e.g. static image monitoring).

### Infrastructure

Mastereasy locals and remotes are small form factor devices. They fit easily underneath a desk and up to four units can be mounted on a 19"- shelf. Single-sided interface orientation provides easy access in setup and service. They provide two power inputs for redundant feeding. Easyline is designed fanless and with that noiseless for silent and ergonomic work spaces.

### Audio

The Mastereasy KVM extender provides two ways of transmitting stereo audio signals. The video embedded (included) 2-channel - L-PCM standard and unbalanced analog ( Upgrade opt) bi-directional audio using 3.5mm jacks for Line input and speakers





### All in one go

Matrix Switching Systems up to  
56 Endpoints without user system



With **Frontbridging** 2 Local EASYline Extenders can be bridged to 1 remote dual Extender (2 network sockets) & thus one or two screens can display the contents of the PCs simultaneously with different images and can be operated either right or left.

2 local single Unit + 1 remote dual Unit = Bridging on 1 or 2 screens



With **Backbridging** from one dual local extender can be shared to two single remote extenders. For all applications that require monitoring at different locations

1 dual local Unit + 2 remote Units = Bridging or Sharing on 1 or 2 screens



### Easy Cross Move in Bridging Mode - Software feature

both PCs can be operated with one mouse and one keyboard

2 local Units + 1 dual remote Unit = Easy Cross Move with 1 keyboard & 1 mouse  
In USB transparent the PC can be changed with a shortcut.  
In Emulation Mode uninterrupted switching between the PCs with the mouse.

Latency (encoding/decoding)
<1,38 ms

For each meter of transmission additional 5ns of signal propagation need to be added. 200km result in 1ms accordingly. Latencies caused by network switch topologies vary by type and manufacturer and overall configuration and need to be counted on top!

9-Step bandwidth fix reduction (1: no – 9: max reduction)

Image Change (Frame to Frame) (%)	average bandwidth [Mbit/s] with fix r eduction
5	50
10	100
25	250
50	470
75	950
100	950

With bandwidth reduction the frame rate is reduced. Via level 5, the color accuracy is additionally the color accuracy is slightly reduced

## Technical Specifications

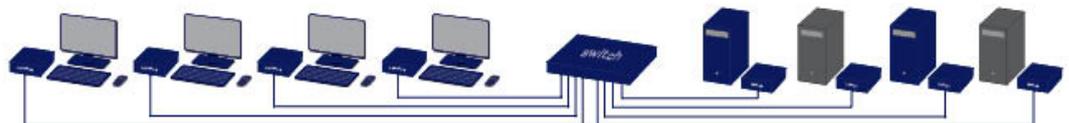
		ME2-F Local/CPU	ME2-F Remote/CON
Interfaces	Video	2 x DVI in (no HCDP)	2x DVI-D out
	USB 2.0	1 x USB-B to PC	4 x USB-A (devices )
	Audio opt	1 x 3,5mm jack (Line In) 1 x 3,5mm jack (Line out)	1 x 3,5mm jack (Line In) 1Vpp 1 x 3,5mm lack (headphone ) 2 x 10mW@320 Ohm
Video	Signal type Resolution (digital)	DVI-D max. 1920x1200 @ 60Hz	DVI-D max. 1920x1200 @ 60Hz
	Signal type Resolution (analog) (opt.) Color mode	DVI-I max. 1920x1200 @ 60Hz 24bit	DVI-I max. 1920x1200 @ 60Hz 24bit
Audio	Type Bandwidth	analogue 16bit, 44kHz, 2ch	analogue 16 bit, 44kHz, 2ch
USB	Specification Type Rate	USB 2.0 transparent max. 480 Mbit/s mass storage devices & camera optional	USB 2.0 transparent max. 480 Mbit/s mass storage devices & camera optional
Network Interface		Duplex LC	Duplex LC
Compression factor		3.5 depending on image content	3.5 depending on image content
Casing	Material	anodized aluminum	anodized aluminum
	Dimension (w x H x D) Weight Shipping weight SET 1895 g /4.17 lb	108 x 43 x 107,5 mm 4.25 x 1.69 x 4,23 inch 295 g / 0.65 lb shipment weight 1005g/2,21 lb	108 x 43 x 107,5 mm 4.25 x 1.69 x 4.29 inch 295 g/ 0.65 lb shipment weight 890 g/ 1.96lb
Power Supply	Type	wall power supply unit 12 VDC 1A max 35V barrel connector 2.1mm	wall power supply unit 12 VDC 1A max 35 V barrel connector 2.1mm
Power Input	Operation	6W	6W without USB devices Example: a typical keyboard has a power consumption of 0.2 W
Operation environment	Temperature	0 to +45 °C /32 to 113 °F)	0 to +45 °C /32 to 113 °F)
	Humidity	< 80%, non -condensing	< 80%, non- condensing
Storage environment	Temperature	-25 to 80 °C /-13 to 176 F	-25 to 80 °C /-13 to 176 F
	Humidity	< 80%, non condensing	< 80%, non condensing
Cooling		free air convection	free air convection
MTBF		82.820 calculated hours approx. 10 years	82.820 calculated hours approx. 10 years
Conformity		CE, FCC	CE, FCC
Warranty		2 years (5 years optional)	2 years (5 years optional)
Delivery content	Devices	1 x ME2-F local (CPU)	1 x ME2-F remote (CON)
	Power Supply	1 x wall power supply unit 12V 1A (EU- plug or INT plug) 2 x DVI - DVI cable 1,8m (5.9ft)	1 x wall power supply unit 12V 1A (EU- plug or INT plug)
	Cables	1 x USB cable 1,8m (5.9ft) 2 x VGA-DVI cable 1,8m (5.9ft) opt 2 x Audio cable 1,8m (5.9ft) opt	
	Modules	2 x SFP module Multimode up to 500m/1640ft (alternativ with Single-mode up to 20km/12mi Item 6835	2 x SFP module Multimode up to 500m/1640 ft (alternativ with Single-mode up to 20km/12mi Item 6835
	Mounting	4 x rubber feet	4 x rubber feet
	Manual	Quickinstallation manual download: <a href="http://www.kvm-tec.com">www.kvm-tec.com</a>	

Part Number & Short description

Part.Nr	Short name	short description
KT - 8123	ME2-F	masterEASY Extender Dual Fiber – Set EAN 0798190112169 UPC 51497115524
KT - 8123L	ME2L-F	masterEASY Extender Dual Fiber –Local Unit /CPU EAN 0798190112145 UPC 51497115531
KT - 8123R	ME2R-F	masterEASY Extender Dual Fiber –Remote Unit /CON EAN 0798190112183 UPC 51497115548
KT - 8143	ME-MO	MASTERflex USB Memory Upgrade EAN 0798190109244 UPC 051497113025
KT - 8141	ME-SO	masterEASY Sound Upgrade EAN 0798190109220 UPC 0798190109220
KT - 9003 KT - 9002	GV5JU GV5J	Warranty extension flexible per UNIT Warranty extensionflexible per SET
ADD-ONS KT - 6231	UMK-EASY	Rack Mounting Kit for under the table EAN 0798190109466 UPC 051497113247
KT - 6232	RMK-EASY-F	Rack Mounting Kit with front panel for EAN 0798190109473 UPC 051497113254
KT - 6233	RMK-EASY-FN	Rack Mounting Kit with front panel and Power supply EAN 0798190109480 UPC 051497113261
KT - 6234	RMK-EASY	Rack Mounting Kit with front panel and redundand Power supply EAN 0798190109503 UPC 051497113285
KT - 6235	DINMK-EASY	Din Rail Mounting EAN 0798190109510 UPC 051497113292
KT - 6236	VH -EASY	Vesa Mounting EAN 0798190109527 UPC 051497113308
KT-7070 KT-7080	TNT40 TNT100	Din Rail power supply DN40-12 Din Rail power supply DN-100-12



point to point



switching system

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