

Signal Extender

USB Extender 7.0

Signal Extender

Extender systems to bridge IT-distances





Leading the Way in digital KVM

Guntermann & Drunck GmbH has been established in 1985 and is named after its founders. Over 25 years have since past, and we are now a leading manufacturer of digital and analog KVM switching systems.

As an owner-managed company we work with a broad range in both digital and analog KVM closely with the marketplace and make our decisions with and in the interests of our customers. It is our philosophy to meet our customers while making decisions, to accompany them in the process and ensure that they achieve their goals.

We can do this because as a medium sized company we have short communication paths and all core competencies are in house – from development through to production. This way we can even make the impossible possible at times. If it is thanks to the modularity of the products or by implementing a customised solution. We orient ourselves towards the needs of the customer – and not the other way round.

Organisations, service providers and companies of all sizes managing numerous computers, servers and other network devices trust the comprehensive advice and service provided by Guntermann & Drunck GmbH.

Thanks to these different fields of specialisation, the demands placed on the products are many and are manifold. Our products have to provide a long-life service, be secure, uncomplicated, user-friendly, understandable and adaptable.

The USB Ranger signal extender system extends USB 2.0 signals.

A system consists of a computer module (transmitter) and a user module (receiver) and uses CAT-x cables or fibre optics to transmit USB signals up to 500 m or 10,000 m.

USB
2.0



USB Ranger 2104-Set

Features

Transmission

- distances up to 10,000 m (2 × singlemode 9/125 μ fiber optics)
- distances up to 500 m (2 × multimode 50/125 μ fiber optics)
- distances up to 275 m (2 × multimode 62.5/125 μ fiber optics)
- distances up to 100 m (CAT-x cable; x = 5, 6, 7)
- transparent transmission of USB 2.0; requires USB 2.0 (EHCI) host controller on computer side

Device

- partly with 4-port hub
- LEDs show operating state
- external power supply or supply via computer's USB interface
- available partly as module, partly as desktop version

Variants

USB 2.0 Ranger 2101-Set

- transmission medium: 1 × CAT-x cable
- transmission distance: 100 m
- interfaces at receiver: 1 × USB-A

USB 2.0 Ranger 2104-Set

- transmission medium: 1 × CAT-x cable
- transmission distance: 100 m
- interfaces at receiver: 4 × USB-A

USB Ranger 2224-Set

- transmission medium: 2 × multimode 50/125 μ fiber optics
- transmission distance: 500 m
- transmission medium: 2 × multimode 62,5/125 μ fiber optics
- transmission distance: 275 m
- interfaces at receiver 4 × USB-A

USB Ranger 2244-Set

- transmission medium: 2 × singlemode 9/125 μ fiber optics
- transmission distance: 10.000 m
- interfaces at receiver: 4 × USB-A

Expansion

No product expansions available.

Installation

A confusion-proof cable links the computer's USB interface to the USB Ranger computer module. Connect your hardware to the corresponding interface of the USB Ranger receiver. Use the existing CAT-x or fibre optics cabling infrastructure to link transmitter and receiver.

Feel free to download the USB extender manual to find out more details about the start-up.

USB Ranger 2101-Set



left: USB Ranger 2101-LEX
right: USB Ranger 2101-REX

	Computer module (LEX)	User module (REX)
General information		
Computers per system	1	
Type of cable connection	dedicated CAT-x link	
Transmission length (max.)	100 m	
Transmission cable type	CAT-x cable	
Dimensions (W x H x D)	44 x 24 x 87 mm	44 x 24 x 87 mm
Power supply		
Type	via USB interface of computer	external power pack
Connection		1 x proprietary 8-pin socket
Voltage		+5VDC/1.5A
Interfaces		
for workplace (USB)		1 x USB-A socket
to computer (USB)	1 x USB-A plug	
to transmission	1 x RJ45 socket	1 x RJ45 socket
USB specifications		
USB power supply		1 x High Power device up to 500mA
USB transmission rate	1.5 Mbit / s low speed	
	12 Mbit / s full speed	
	480 mbps high speed (only USB 2.0)	

USB Ranger 2104-Set



left: USB Ranger 2104-LEX
right: USB Ranger 2104-REX

	Computer module (LEX)	User module (REX)
General information		
Computers per system	1	
Type of cable connection	dedicated CAT-x link	
Transmission length (max.)	100 m	
Transmission cable type	CAT-x cable	
Dimensions (W x H x D)	44 x 24 x 87 mm	110 x 24 x 69 mm
Power supply		
Type	via USB interface of computer	external power pack
Connection		1 x hollow socket
Voltage		+5VDC/ 3A
Interfaces		
for workplace (USB)		4 x USB-A socket
to computer (USB)	1 x USB-A plug	
to transmission	1 x RJ45 socket	1 x RJ45 socket
USB specifications		
USB power supply		4 x High Power devices up to 500mA
USB transmission rate	1.5 Mbit/s low speed	
	12 Mbit/s full speed	
	480 Mbit/s high speed (only USB 2.0)	

USB Ranger 2224-Set



left: USB Ranger 2224-LEX
right: USB Ranger 2224-REX

	Computer module (LEX)	User module (REX)
General information		
Computers per system	1	
Type of cable connection	dedicated multimode fibre optics connection	
Transmission length (max.)	275 m over 62.5/125µm multimode	
	500 m over 50/125µm multimode	
Transmission cable type	multimode fibre optics connection	
Dimensions (W x H x D)	100 x 26 x 76 mm	100 x 26 x 76 mm
Power supply		
Type	external power pack	external power pack
Connection	1 x hollow socket	1 x hollow socket
Voltage	+5VDC/ 3A	+5VDC/ 3A
Interfaces		
for workplace (USB)		4 x USB-A socket
to computer (USB)	1 x USB-B plug	
for transmission	1 x LC duplex socket	1 x LC duplex socket
USB specifications		
USB power supply		4 x High Power device up to 500mA
USB transmission rate	1.5 Mbit/s low speed	
	12 Mbit/s full speed	
	480 Mbit/s high speed (only USB 2.0)	

USB Ranger 2244-Set



left: USB Ranger 2244-LEX
right: USB Ranger 2244-REX

	Computer module (LEX)	User module (REX)
General information		
Computers per system	1	
Type of cable connection	dedicated singlemode fibre optics connection	
Transmission length (max.)	10,000 m	
Transmission cable type	Singlemode fibre optics connection	
Dimensions (W x H x D)	100 x 26 x 76 mm	100 x 26 x 76 mm
Power supply		
Type	external power pack	external power pack
Connection	1 x hollow socket	1 x hollow socket
Voltage	+5VDC/ 3A	+5VDC/ 3A
Interfaces		
for workplace (USB)		4 x USB-A socket
to computer (USB)	1 x USB-B plug	
for transmission	1 x LC duplex socket	1 x LC duplex socket
USB specifications		
USB power supply		4 x High Power device up to 500mA
USB transmission rate	1.5 Mbit/s low speed	
	12 Mbit/s full speed	
	480 Mbit/s high speed (only USB 2.0)	

List of Item Numbers

























Item No.	Set
A1990013	USB 2.0 Ranger 2101-Set
A1990012	USB 2.0 Ranger 2104-Set
A1990018	USB Ranger 2224-Set
A1990019	USB Ranger 2244-Set

Legend

ABBREVIATIONS

CPU	=	Computer module	M	=	Multimode
PC	=	Computer module	S	=	Singlemode
CON	=	User module	RM	=	For assembly in a 19" rack
REM	=	User module	A	=	Audio
MC2	=	Multichannel 2	AR	=	Audio + RS232
MC3	=	Multichannel 3	R	=	RS232
MC4	=	Multichannel 4	U	=	transparent USB 1.1
			U2	=	transparent USB 2.0
			D	=	Delay

EQUIPMENT FEATURES

	=	keyboard/mouse		=	VT100
	=	dual-link DVI video		=	KVM IP access
	=	single-link DVI video		=	Network connection
	=	single-link DVI + VGA		=	Web interface
	=	VGA video		=	DevCon support
	=	Audio		=	Monitoring
	=	RS232		=	CAT cable
	=	USB 1.1		=	Fiber optics
	=	USB 2.0		=	Single user
	=	Delay		=	Multi user
	=	Screen Freeze		=	Separat local/remote user
	=	Power Switching			
	=	Fire Wire			