# USB Ranger® 2204

Cat 5 USB 2.0 Extender



Ranger 2204 extends USB 2.0 beyond the desktop up to 100m over standard Cat 5 cable using ExtremeUSB® technology.

## Ranger 2204 Features

- Powered by ExtremeUSB®. Long reach USB 2.0 enabled by Icron's LionsGate™ USB 2.0 Extension ASIC.
- Extends USB 2.0 high-speed and USB 1.1 (low-speed, full speed) devices up to 100m over Cat 5 cable.
- Operates with USB 2.0 high-speed host controllers and USB 1.1 classic hosts.
- Supports all USB device types: Control, Interrupt, Bulk and Isochronous at up to 480Mbps.
- True plug and play, ready to operate right out of the box. No new driver installation required.
- Supports all major operating systems including Windows<sup>®</sup>, Mac OS<sup>®</sup>, and Linux<sup>®</sup>.
- Integrated hub provides four remote USB 2.0 ports. Number of devices can be increased using additional USB hubs.
- AC power adapter at remote unit provides standard 500mA to each USB port.
- Power adapter at local unit is not required for normal operation.
- Ideal for a wide variety of USB devices, from printers, scanners, hard drives, and audio devices, to touch screens, web cams, and game controllers.



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### **Applications**

Industrial Control

Digital Signage

· Home Network Integration

· Medical Device Connectivity

KVM Extension

Remote Desktop USB Connections

Security: web camera, access control.

· USB Device Sharing: print, scan, storage.

### Ordering Information

The Ranger 2204 system includes a Local Extender (LEX) module, a Remote Extender (REX) module, a 2 meter USB cable, and an International power adapter with country specific cord.

	Name	Part Number	Description
	USB Ranger® 2204	00-00256	4-Port Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: North American plug
	USB Ranger® 2204	00-00257	4-Port Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: European plug
	USB Ranger® 2204	00-00258	4-Port Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: UK plug
	USB Ranger® 2204	00-00259	4-Port Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: Australian plug

### **Product Specifications**

330 ft (100m) over Cat 5e (or better) cable Range

LEX unit USB connector 1 x USB Type B

LEX unit Link connector 1 x RJ45 REX unit Link connector 1 x RJ45

REX unit USB connector 4 x USB Type A

Maximum USB devices supported 14 USB devices or 3 USB hubs with 11 USB devices

Power adapter Maximum Rating 5V DC @ 3A Current available to USB at REX 4 x 500mA

LEX and REX unit dimensions 3.94" x 2.99" x 1.02" (100 mm x 76 mm x 26 mm)

Operating temperature range 0°C to 50°C

Total system shipping weight 2.0 lbs. (0.9 kilograms)

Regulatory testing FCC (Class B), IC (Class B), CE (Class B) EMC EN-61000-4-2:2001 8kV Contact, 16kV Air **ESD** Rating

Specifications subject to change without notification.

Contact sales@icron.com for more information or OEM options.

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Document #90-00623-A02

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# USB Ranger® 2212

## Cat 5 USB 2.0 Extender with Remote Power



Ranger 2212 extends USB 2.0 beyond the desktop up to 100m over standard Cat 5 cable using ExtremeUSB® technology.

## Ranger 2212 Features

- System delivers power to remote hub over Cat 5 extension link simplifying installation and eliminating the need for AC power close to the remote unit.
- Powered by ExtremeUSB<sup>®</sup>. Long reach USB 2.0 enabled by Icron's LionsGate™ USB 2.0 Extension ASIC.
- Extends USB 2.0 high-speed and USB 1.1 (low-speed, full speed) devices up to 100m over Cat 5 cable.
- Operates with USB 2.0 high-speed host controllers and USB 1.1 classic hosts.
- Supports all USB device types: Control, Interrupt, Bulk and Isochronous at up to 480Mbps.
- True plug and play, ready to operate right out of the box. No new driver installation required.
- Supports all major operating systems including Windows®, Mac OS®, and Linux®.
- Integrated hub provides two USB 2.0 ports. Number of devices can be increased using additional USB hubs.
- Remote unit provides standard 500mA to each USB port.
- Ideal for a wide variety of USB devices, from printers, scanners, hard drives, and audio devices, to touch screens, web cams, and game controllers.



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### **Applications**

Industrial Control

Digital Signage

· Home Network Integration

· Medical Device Connectivity

KVM Extension

Remote Desktop USB Connections

Security: web camera, access control.

· USB Device Sharing: print, scan, storage.

### **Ordering Information**

The Ranger 2212 system includes a Local Extender (LEX) module, a Remote Extender (REX) module, a 2 meter USB cable, and an International power adapter with country specific cord.

Name	Part Number	Description
USB Ranger® 2212	00-00252	2-Port Remote Powered Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: North American plug
USB Ranger® 2212	00-00253	2-Port Remote Powered Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: European plug
USB Ranger® 2212	00-00254	2-Port Remote Powered Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: UK plug
USB Ranger® 2212	00-00255	2-Port Remote Powered Cat 5 USB 2.0 Extender, International (100-240V) Power Adapter: Australian plug

#### **Product Specifications**

Range 330 ft (100m) over Cat 5e (or better) cable

LEX unit USB connector 1 x USB Type B

LEX unit Link connector 1 x RJ45
REX unit Link connector 1 x RJ45

REX unit USB connector 2 x USB Type A

Maximum USB devices supported 14 USB devices or 3 USB hubs with 11 USB devices

Power adapter Maximum Rating 24V DC @ 1A (LEX only)

Current available to USB at REX 2 x 500mA

LEX and REX unit dimensions 3.94" x 2.99" x 1.02" (100 mm x 76 mm x 26 mm)

Operating temperature range 0°C to 50°C

Total system shipping weight 2.2 lbs. (1.0 kilograms)

Regulatory testing FCC (Class B), IC (Class B), CE (Class B)
ESD Rating EMC EN-61000-4-2:2001 4kV Contact, 8kV Air

Specifications subject to change without notification.

Contact sales@icron.com for more information or OEM options.

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Document #90-00622-A03





# USB Ranger® 2224

# Multimode Fiber Optic USB 2.0 Extender



Ranger 2224 extends USB 2.0 beyond the desktop up to 500m over multimode fiber optic cabling using ExtremeUSB® technology.

## Ranger 2224 Features

- Powered by ExtremeUSB®. Long reach USB 2.0 enabled by Icron's LionsGate™ USB 2.0 Extension ASIC.
- Extends USB 2.0 high-speed and USB 1.1 (low-speed, full speed) devices up to 500m over fiber optics.
- Supports all USB device types: Control, Interrupt, Bulk and Isochronous at up to 480Mbps.
- Operates with USB 2.0 high-speed host controllers and USB 1.1 classic hosts.
- True plug and play, ready to operate right out of the box. No new driver installation required.
- Supports all major operating systems including Windows<sup>®</sup>, Mac OS<sup>®</sup>, and Linux<sup>®</sup>.
- Integrated hub provides four remote USB 2.0 ports. Number of devices can be increased using additional USB hubs.
- AC power adapter at remote unit provides standard 500mA to each USB port.
- Power adapter at local unit is not required for normal operation.
- Ideal for a wide variety of USB devices, from printers, scanners, hard drives, and audio devices, to touch screens, web cams, and game controllers.



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### **Applications**

- Industrial Control
- Digital Signage
- · Home Network Integration
- Medical Device Connectivity

- KVM Extension
- Remote Desktop USB Connections
- · Security: web camera, access control.
- USB Device Sharing: print, scan, storage.

### **Ordering Information**

The Ranger 2224 system includes a Local Extender (LEX) module, a Remote Extender (REX) module, a 2 meter USB cable, and an International power adapter with country specific cord.

Name	Part Number	Description
USB Ranger® 2224	00-00260	4-Port Multimode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: North American plug
USB Ranger® 2224	00-00261	4-Port Multimode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: European plug
USB Ranger® 2224	00-00262	4-Port Multimode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: UK plug
USB Ranger® 2224	00-00263	4-Port Multimode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: Australian plug

## **Product Specifications**

Range	1640 ft (500m) over 50/125µm MMF 902 ft (275m) over 62.5/125µm MMF
LEX unit USB connector	1 x USB Type B
LEX unit Link connector	1 x SFP Duplex LC
REX unit Link connector	1 x SFP Duplex LC
REX unit USB connector	4 x USB Type A
Maximum USB devices supported	14 USB devices or 3 USB hubs with 11 USB devices
Power adapter Maximum Rating	5V DC @ 3A
Current available to USB at REX	4 x 500mA
LEX and REX unit dimensions	3.94" x 2.99" x 1.02" (100 mm x 76 mm x 26 mm)
Operating temperature range	0°C to 50°C
Total system shipping weight	2.0 lbs. (0.9 kilograms)
Regulatory testing	FCC (Class B), IC (Class B), CE (Class B)
ESD Rating	EMC EN-61000-4-2:2001 8kV Contact, 16kV Air

Specifications subject to change without notification.

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Document #90-00624-A02





# USB Ranger® 2244

## Singlemode Fiber Optic USB 2.0 Extender



Ranger 2244 extends USB 2.0 beyond the desktop up to 10km over singlemode fiber optic cabling using ExtremeUSB® technology.

## Ranger 2244 Features

- Powered by ExtremeUSB®. Long reach USB 2.0 enabled by Icron's LionsGate™ USB 2.0 Extension ASIC.
- Extends USB 2.0 high-speed and USB 1.1 (low-speed, full speed) devices up to 10km over fiber optics.
- Supports all USB device types: Control, Interrupt, Bulk and Isochronous at up to 480Mbps.
- Operates with USB 2.0 high-speed host controllers and USB 1.1 classic hosts.
- True plug and play, ready to operate right out of the box. No new driver installation required.
- Supports all major operating systems including Windows<sup>®</sup>, Mac OS<sup>®</sup>, and Linux<sup>®</sup>
- Integrated hub provides four remote USB 2.0 ports. Number of devices can be increased using additional USB hubs.
- Ideal for a wide variety of USB devices, from printers, scanners, hard drives, and audio devices, to touch screens, web cams, and game controllers.
- AC power adapter at remote unit provides standard 500mA to each USB port.
- Power adapter at local unit is not required for normal operation.



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### **Applications**

- Industrial Control
- Digital Signage
- · Home Network Integration
- Medical Device Connectivity

- KVM Extension
- Remote Desktop USB Connections
- · Security: web camera, access control.
- · USB Device Sharing: print, scan, storage.

### **Ordering Information**

The Ranger 2244 system includes a Local Extender (LEX) module, a Remote Extender (REX) module, a 2 meter USB cable, and an International power adapter with country specific cord.

Name	Part Number	Description
USB Ranger® 2244	00-00264	4-Port Singlemode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: North American plug
USB Ranger® 2244	00-00265	4-Port Singlemode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: European plug
USB Ranger® 2244	00-00266	4-Port Singlemode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: UK plug
USB Ranger® 2244	00-00267	4-Port Singlemode Fiber Optic USB 2.0 Extender, International (100-240V) Power Adapter: Australian plug

## **Product Specifications**

6 miles (10km) over SMF
1 x USB Type B
1 x SFP Duplex LC
1 x SFP Duplex LC
4 x USB Type A
14 (including USB hubs)
5V DC @ 3A
4 x 500mA
3.94" x 2.99" x 1.02" (100 mm x 76 mm x 26 mm)
0°C to 50°C
2.0 lbs. (0.9 kilograms)
FCC (Class B), IC (Class B), CE (Class B)
EMC EN-61000-4-2:2001 8kV Contact, 16kV Air

Specifications subject to change without notification.

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Document #90-00644-A02

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