



Edge Router X SEP

Advanced Gigabit Router with PoE and SFP Model: ER-X-SFP

QUICK START GUIDE

Introduction

Thank you for purchasing the Ubiquiti Networks® EdgeRouter™ X SFP. This Quick Start Guide is designed to guide you through installation and also includes warranty terms.

Package Contents



EdgeRouter X SFP



Power Adapter (24V, 2.5A)



Power Cord

TERMS OF USE: All Ethernet cabling runs must use CATS (or above). It is the professional installier's responsibility to follow local country regulations, including operation within legal frequency channels, output power, indoor cabling requirements, and Dynamic Frequency Selection (DFS) requirements.

Installation Requirements

- For indoor applications, use Category 5 (or above) UTP cabling approved for indoor use.
- For outdoor applications, shielded Category 5 (or above) cabling should be used for all wired Ethernet connections and should be grounded through the AC ground of the power supply.

We recommend that you protect your networks from harmful outdoor environments and destructive ESD events with industrial-grade, shielded Ethernet cable from Ubiquiti Networks. For more details, visit: www.ubnt.com/toughcable

- WARNING: To reduce the risk of fire or electric shock, do not expose the EdgeRouter to rain or moisture.
- Note: Although the cabling can be located outdoors, the EdgeRouter itself should be housed inside a protective enclosure.

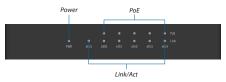
Hardware Overview

Front Panel



Port	Description	
eth5/SFP	The SFP port is hot-swappable and supports a 100 Mbps or Gigabit fiber SFP module.	
eth0-eth4	RJ45 ports support passive 24V PoE output and 10/100/1000 Ethernet connections.	

Top Panel



	LED	State	Status
Power	Status	Off	Power Off
		Green	Power On
eth5	Link/Act	Off	No Link
		Green	100/1000 Mbps (1 Gbps) Link Flashing Indicates Activity
eth0-eth4	PoE	Off	No PoE
		Green	24V Passive
	Link/Act	Off	No Link
		Green	10/100/1000 Mbps Link Flashing Indicates Activity

Back Panel



	Ground	
Button	Description	
Reset	There are two methods to reset the EdgeRouter to factory defaults: • Runtime reset (recommended) The EdgeRouter should be running after bootup is complete. Press and hold the Reset button for about 10 seconds until the eth4 Link LED starts flashing and then becomes solidly lit. After a few seconds, the LED will turn off, and the EdgeRouter will automatically reboot. • Power-on reset Disconnect power from the EdgeRouter. Press and hold the Reset button while connecting power to the EdgeRouter. The port LEDs will light up in sequential order. Keep holding the Reset button until the LED on the last port starts flashing, and then release the button.	
Detail	Description	
Ground	ESD grounding for enhanced ESD protection. The ground wire and screw with washer are not included (recommended screw size: M3-0.5 x 4 mm).	
Power	Connect the Power Adapter.	

Hardware Installation

Place the EdgeRouter on a flat, horizontal surface or mount it on a wall (mounting screws not included).

WARNING: FAILURE TO PROVIDE PROPER VENTILATION MAY CAUSE FIRE HAZARD. KEEP AT LEAST 20 MM OF CLEARANCE NEXT TO THE VENTILATION HOLES FOR ADEQUATE AIRFLOW.

Connecting Power

1. Connect the Power Adapter to the Power port.



Connect the Power Cord to the Power Adapter. Connect the other end of the Power Cord to a power outlet.



Connecting Ethernet

- Connect an Ethernet cable from your computer or host system to the port labeled eth0 on the EdgeRouter.
 - Note: PoE is disabled by default.



Connect Ethernet cables from the Ethernet ports of your devices to the rest of the ports in this range: eth1-eth4.



Using the SFP Port (Optional)

To use the eth5/SFP port:

- 1. Remove the protective plug covering the eth5/SFP port.
- 2. Plug a fiber SFP module into the eth5/SFP port.



Connect a fiber optic cable to the fiber SFP module. Then connect the other end of the cable to another fiber device.



For information about compatible fiber SFP modules, visit: ubnt.link/SFP_DAC_Compatibility

Accessing the EdgeOS Configuration Interface

The EdgeOS® configuration interface can be accessed via DHCP or static IP address assignment. By default, eth 1 is set up as a DHCP client, while eth0 is assigned a static IP address of 192.168.1.1. To configure the EdgeRouter, proceed to the appropriate section: DHCP or "Static IP Address".

DHCP

 Connect an Ethernet cable from eth1 on the EdgeRouter to a LAN segment that has an existing DHCP server.



- To check the IP address of the EdgeRouter, use one of the following methods:
 - Set up the DHCP server to provide a specific IP address to the EdgeRouter based on its MAC address (on the label).
 - Let the EdgeRouter obtain an IP address and then check the DHCP server to see which IP address was assigned.
- Launch your web browser. Enter the appropriate IP address in the address field. Press enter (PC) or return (Mac).

 The login screen will appear. Enter ubnt in the Username and Password fields. Read the Ubiquiti License Agreement, and check the box next to I agree to the terms of this License Agreement to accept it. Click Login.



The EdgeOS Configuration Interface will appear, allowing you to customize your settings as needed. For more information, refer to the EdgeOS User Guide, which is available at www.ubnt.com/download/edgemax

For more information on PoE configuration, refer to <u>"Configuring PoE Settings"</u>.

You can also manage your device using the Ubiquiti® Network Management System. UNMS® lets you configure, monitor, upgrade, and back up your devices using a single application. Get started at www.unms.com

Static IP Address

 Connect an Ethernet cable from the Ethernet port on your computer to the port labeled eth0 on the EdgeRouter.



- Configure the Ethernet adapter on your host system with a static IP address on the 192 168 1 x subnet.
- Launch your web browser. Type https://192.168.1.1 in the address field, and press enter (PC) or return (Mac).
- The login screen will appear. Enter ubnt in the Username and Password fields. Read the Ubiquiti License Agreement, and check the box next to I agree to the terms of this License Agreement to accept it. Click Login.



The EdgeOS Configuration Interface will appear, allowing you to customize your settings as needed. For more information, refer to the EdgeOS User Guide, which is available at www.ubnt.com/download/edgemax

For more information on PoE configuration, refer to "Configuring PoE Settings".

You can also manage your device using the Ubiquiti Network Management System. UNMS lets you configure, monitor, upgrade, and back up your devices using a single application. Get started at www.unms.com

Configuring PoE Settings

The PoE setting for ports eth0-eth4 is set to Off by default.

- WARNING: Before activating 24V passive PoE, ensure that the connected device supports PoE and the supplied voltage.
- On the Dashboard screen, go to Actions > PoE for the interface you want to configure.



2. Select 24V from the PoE drop-down menu.



Click Save.

For more information, refer to the EdgeOS User Guide, which is available at www.ubnt.com/download/edgemax

Specifications

EdgeRouter X SFP			
Dimensions	142 x 75 x 23 mm (5.59 x 2.95 x 0.91")		
Weight	215 g (7.58 oz)		
Max. Power Consumption	5W		
Max. Total PoE Output	50W @ 24V		
PoE Output	Passive 24V (Pins 4, 5+; 7, 8-)		
Power Input	24VDC, 2.5A Power Adapter (Included)		
Power Supply	External AC/DC Adapter		
Supported Voltage Range	9 to 30VDC		
Button	Reset		
LEDs	Power, Link/Activity (6), PoE (5)		
Processor	Dual-Core 880 MHz, MIPS1004Kc		
System Memory	256 MB DDR3 RAM		
Code Storage	256 MB NAND		
Wall-Mount	Yes		
Networking Interfaces Data/PoE Passthrough Port Data Port	(5) 10/100/1000 RJ45 Port (1) 100/1000 SFP Port		
Operating Temperature	-10 to 45° C (14 to 113° F)		
Operating Humidity	10 - 90% Noncondensing		
Certifications	CE, FCC, IC		

Safety Notices

- Read, follow, and keep these instructions.
- Heed all warnings. 2
- 3. Only use attachments/accessories specified by the manufacturer.



WARNING: Failure to provide proper ventilation may cause fire hazard. Keep at least 20 mm of clearance next to the ventilation holes for adequate airflow.



WARNING: To reduce the risk of fire or electric shock, do not expose this product to rain or moisture.



WARNING: Do not use this product in a location that can be submerged by water.



WARNING: Avoid using this product during an electrical storm. There may be a remote risk of electric shock from liahtnina.

Electrical Safety Information

- Compliance is required with respect to voltage, frequency, and current requirements indicated on the manufacturer's label. Connection to a different power source than those specified may result in improper operation, damage to the equipment or pose a fire hazard if the limitations are not followed.
- There are no operator serviceable parts inside this equipment. Service should be provided only by a qualified service technician.
- This equipment is provided with a detachable power cord which has an integral safety ground wire intended for connection to a grounded safety outlet.
 - a. Do not substitute the power cord with one that is not the provided approved type. Never use an adapter plug to connect to a 2-wire outlet as this will defeat the continuity of the grounding wire.
 - b. The equipment requires the use of the ground wire as a part of the safety certification, modification or misuse can provide a shock hazard that can result in serious injury or death.
 - c. Contact a qualified electrician or the manufacturer if there are questions about the installation prior to connecting the equipment.
 - Protective earthing is provided by Listed AC adapter, Building installation shall provide appropriate short-circuit backup protection.
 - e. Protective bonding must be installed in accordance with local national wiring rules and regulations.

Limited Warranty

www.ubnt.com/support/warranty/

The limited warranty requires the use of arbitration to resolve disputes on an individual basis, and, where applicable, specify arbitration instead of jury trials or class actions.

Compliance

FCC

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- This device may not cause harmful interference, and
- This device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operations of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

ISED Canada

CAN ICES-3(A)/NMB-3(A)

This Class A digital apparatus complies with Canadian CAN ICES-003.

CAN ICES-3(A)/NMB-3(A)

Cet appareil numérique de la classe A est conforme à la norme NMB-003 du Canada.

Australia and New Zealand



Warning: This is a Class A product. In a domestic environment this product may cause radio interference in which case the user may be required to take adequate measures.

CE Marking

CE marking on this product represents the product is in compliance with all directives that are applicable to it.

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RoHS/WEEE Compliance Statement



English

European Directive 2012/19/EU requires that the equipment bearing this symbol on the product and/or its packaging must not be disposed of with unsorted municipal waste. The symbol indicates that this product should be disposed of separately from regular household waste streams. It is your responsibility to dispose of this and other electric and electronic equipment via designated collection facilities appointed by the government or local authorities. Correct disposal and recycling will help prevent potental negative consequences to the environment and human health. For more detailed information about the disposal of your old equipment, please contact your local authorities, waste disposal service, or the shop where you purchased the product.

Deutsch

Die Europäische Richtlinie 2012/19/EU verlangt, dass technische Ausrüstung, die direkt am Gerät und/oder an der Verpackung mit diesem Symbol versehen ist, nicht zusammen mit unsortiertem Gemeindeabfall entsorgt werden darf. Das Symbol weist darauf hin, dass das Produkt von regulärem Haushaltmüll getrennt entsorgt werden sollte. Es liegt in Ihrer Verantwortung, dieses Gerät und andere elektrische und elektronische Geräte über die dafür zuständigen und von der Regierung oder örtlichen Behörden dazu bestimmten Sammelstellen zu entsorgen. Ordnungsgemäßes Entsorgen und Recyceln trägt dazu bei, potentielle negative Folgen für Umwelt und die menschliche Gesundheit zu vermeiden. Wenn Sie weitere Informationen zur Entsorgung ihrer Altgeräte benötigen, wenden Sie sich bitte an die örtlichen Behörden oder städtischen Entsorgungsdienste oder an den Händler, bei dem Sie das Produkt erworben haben.

Español

La Directiva 2012/19/UE exige que los equipos que lleven este símbolo en el propio aparato y/o en su embalaje no deben eliminarse junto con otros residuos urbanos no seleccionados. El símbolo indica que el producto en cuestión debe separarse de los residuos domésticos convencionales con vistas a su eliminación. Es responsabilidad suya desechar este y cualesquiera otros aparatos eléctricos y electrónicos a través de los puntos de recogida que ponen a su disposición el gobierno y las autoridades locales. Al desechar y reciclar correctamente estos aparatos estará contribuyendo a evitar posibles consecuencias negativas para el medio ambiente y la salud de las personas. Si desea obtener información más detallada sobre la eliminación segura de su aparato usado, consulte a las autoridades locales, al servicio de recogida y eliminación de residuos de su zona o pregunte en la tienda donde adquirió el producto.

Français

La directive européenne 2012/19/UE exige que l'équipement sur lequel est apposé ce symbole sur le produit et/ou son emballage ne soit pas jeté avec les autres ordures ménagères. Ce symbole indique que le produit doit être élimine dans un circuit distinct de celui pour les déchets des ménages. Il est de votre responsabilité de jeter ce matériel ainsi que tout autre matériel électrique ou électronique par les moyens de collecte indiqués par le gouvernement et les pouvoirs publics des collectivités territoriales. L'élimination et le recyclage en bonne et due forme ont pour but de lutter contre l'impact néfaste potentiel de ce type de produits sur l'environnement et la santé publique. Pour plus d'informations sur le mode d'élimination de votre ancien équipement, veuillez prendre contact avec les pouvoirs publics locaux, le service de traitement des déchets, ou l'endroit où vous avez achet le produit.

Italiano

La direttiva europea 2012/19/UE richiede che le apparecchiature contrassegnate con questo simbolo sul prodotto e/o sull'imballaggio non siano smaltite insieme ai rifluti urbani non differenzilat. Il simbolo indica che questo prodotto non deve essere smaltito insieme ai normali rifluti domestici. E responsabilità del proprietario smaltire sia questi prodotti sia le altre apparecchiature elettriche ed elettroniche mediante le specifiche strutture di raccolta indicate dal governo o dagli enti pubblici locali. Il corretto smaltimento ed il riciclaggio aiuteranno a prevenire conseguenze potenzialmente negative per l'ambiente e per la salute dell'essere umano. Per ricevere informazioni più dettagliate circa lo smaltimento delle vecchie apparecchiature in Vostro possesso, Vi invitiamo a contattare gli enti pubblici di competenza, il servizio di smaltimento rifiuti o il negozio nel quale avete acquistato il prodotto.

Declaration of Conformity

български [Bulgarian] С настоящото UBIQUITI NETWORKS декларира, че това устройство ER-X-SFP е в съответствие със съществените изисквания и други приложими разпоредби на Директиви 2014/30/EC, 2014/35/EC. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес www.ubnt.com/compliance

Hrvatski (Croatian) UBIQUITI NETWORKS ovim putem izjavljuje da je ovaj uredaj ER-X-SFP sukladan osnovnim zahljevima i ostalim bitnim odredbama Direktiva 2014/30/EU, 2014/35/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: www.ubnt.com/comoliance

Čeština [Czech] UBIQUITI NETWORKS tímto prohlašuje, že toto ER-X-SFP zařízení, je ve shodě se základními požadavky a dalšími příslušnými ustanoveními směrnic 2014/30/EU, 2014/35/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: www.ubnt.com/compliance

Dansk [Danish] Hermed, UBIQUITI NETWORKS, erklærer at denne ER-X-SFP enhed, er i overensstemmelse med de væsentlige krav og øvrige relevante krav i direktiver 2014/30/EU, 2014/35/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: www.ubnt.com/compliance

Nederlands [Dutch] Hierbij verklaart UBKQUITI NETWORKS, dat deze ER-X-SFP apparaat, in owereenstemming is met de essentiële eisen en de andere relevante bepalingen van richtlijnen 2014/30/EU, 2014/35/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleed op het volgende internetadres: www.ubnt.com/compliance

English Hereby, UBIQUITI NETWORKS, declares that this ER-X-SFP device, is in compliance with the essential requirements and other relevant provisions of Directives 2014/30/EU, 2014/35/EU. The full text of the EU declaration of conformity is available at the following internet address: www.ubnt.com/compliance

Eesti keel [Estonian] Käesolevaga UBIQUITI NETWORKS kinnitab, et antud ER-X-SFP seade, on vastavus olulistele nõuetele ja teistele asjakohastele sätetele direktiivide 2014/30/EL, 2014/35/EL. ELi vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: www.ubnt.com/compliance

Suomi [Finnish] Täten UBIQUITI NETWORKS vakuuttaa, että tämä ER-X-SFP laite, on yhdemmukainen olennaisten vaatimusten ja muiden sitä koskevien direktiivien 2014/30/EU, 2014/35/EU. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: www.ubnt.com/compliance

Français [French] Par la présente UBIQUITI NETWORKS déclare que l'appareil ER-X-SFP, est conforme aux exigences essentielles et aux autres dispositions pertinentes des directives 2014/30/UE, 2014/35/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: www.ubnt.com/compliance

Deutsch [German] Hiermit erklärt UBIQUITI NETWORKS, dass sich dieses ER-X-SFP Gerät, in Übereinstimmung mit den grundlegenden Anforderungen und den anderen relevanten Vorschriften der Richtlinien 2014/30/EU 2014/35/EU befindet. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar:

www.ubnt.com/compliance

Ελληνικά (Greek) Δια του παρόντος, UBIQUITI NETWORKS, δηλώνει ότι αυτή η συσκευή ER-X-5FP, είναι σε συμμόρφωση με τις Βασικές απαιτήσεις και τις λοιπές σχεπικές διατάξεις των οδηγιών 2014/30/EF, 2014/35/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: www.ubnt.com/compliance

Magyar [Hungarian] Ezennel UBIQUITI NETWORKS kijelenti, hogy ez a ER-X-SFP készülék megfelel az alapvető követelményeknek és más vonatkozó 2014/30/EU, 2014/35/EU irányelvek rendelkezéseit. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: www.ubnt.com/compliance

Íslenska (Icelandic) Hér, UBIQUITI NETWORKS, því yfir að þetta ER-X-SFP tæki er í samræmi við grunnkrður og ömur viðeigandi ákvæði tilskipana 2014/30/ESB, 2014/35/ESB. Fullur texti ESB samræmisyfirlýsing er að finna á eftúrfarandi netfangi: www.ubnt.com/compliance Italiano [Italian] Con la presente, UBIQUITI NETWORKS, dichiara che questo dispositivo ER-X-5FP, è conforme ai requisiti essenziali ed alle altre disposizioni pertinenti delle direttive 2014/30/UE, 2014/35/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: www.ubnt.com/compliance

Latviešu valoda (Latvian) Ar šo, UB(QUIT) NETWORKS, deklarē, ka ERX-SFP ierīce, ir saskaņā ar būtiskajām prasībām un citiem attiecīgiem noteikumiem Direktīvās 2014/30/ES, 2014/35/ES. Pilns ES atblistības deklarācijas teksts ir pieejams šādā interneta vietnē: www.ubnt.com/compliance

Lietuvių kalba (Lithuanian) UBIQUITI NETWORKS deklaruoja, kad šis ER-X-SFP įrenginys atitinka esminius reikalavimus ir kitas 2014/30/EŞ, 2014/35/ES Direktyvų nuostatas. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: www.ubnt.com/compliance Malti (Maltese) Hawnhekk, UBIQUITI NETWORKS, tiddikjara il dan II-mezz ER-X-SFP huva konformi

manu (Maittise) ir mavilinek, oisiqui Tike i Wonks, diadingala tili ani initezz erw. 3-m ruwa dominim ma-rekwiziti essenzjali u dispozizzjonijjer i filevanti ohrajn ta Direttivi 2014/30/UE, 2014/35/UE. Id-dikjarazjoni tal-konformità tisti tigi ikkonsultata minim www.ubnt.com/compliance Morsk (Norwedian) Herved UBIOUITI NETWORKS. erklaere at denne ER-K-SFP enheten. er

Norsk (Norweglan), Herved UBIQUITI NET WORKS, erkaære at denne EK-S-PF enneten, er i samsvar med de grunnleggende kravene og andre relevante bestemmelser i direktivene 2014/30/EU, 2014/35/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internettadresse: www.ubnt.com/compliance

Polski [Polish] Niniejszym, Ubiquiti Networks, oświadcza, że urządzenie ER-X-SFP, jest zgodny z zasadniczymi wymaganiami oraz pozostałymi stosownymi postanowieniami Dyrektyw 2014/30/UE, 2014/25/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: www.ubnt.com/compliance

Portugues [Portuguese] UBIQUITI NETWORKS declara que este dispositivo ER-X-SFP, está conforme com os requisitos essenciais e outras disposições das Directivas 2014/30/UE, 2014/35/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: www.ubnt.com/compliance

Română (Romanian). Prin prezenta, UBIQUITI NETWORKS declară că acest dispozitiv ER-X-SFP este în conformitate cu cerințele esențiale și alte prevederi relevante ale Directivelor 2014/30/UE, 2014/35/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet www.ubnt.com/compliance

Slovenčina [Slovak] Týmto UBIQUITI NETWORKS, prehlasuje, že toto ER-X-SFP zariadenie, je v súlade so základnými požiadavkami a ďalšími relevantnými ustanoveniami smernice 2014/30/EÚ, 2014/35/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozicii na tejto internetovej adrese: www.ubnt.com/compliance

Slovenčična (Slovenian) Družba UBIQUTII NETWORKS čjavlja, da je naprava ER-X-SFP v skladu z obveznimi zahtevami in drugimi ustreznimi določbami direktiv 2014/30/EU in 2014/35/EU. Celotro besedilo čjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: www.ubnt.com/compliance Eznado (Sanshih Por medio de la presente UBIQUTII NETWORKS declara que este dispositivo

ER.XSFP, cumple con los requisitos esenciales y cualesquiera otras disposiciones aplicables o esigibles de las Disectivas 2014/30/UE, 2014/35/UE Lettos completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: www.ubnt.com/compliance Sevenska [Swedish]. Härmed IBB/UITIN TEV/DRS, Intypar att denna ER.XSFP enhet a i överenstatimmelse med de višentiliga egenskapskara och övriga relevanta bestämmelser orden and av directiva 2014/35/EU. Den fullstämdiat externi IBL Viforsikara om framara ir av direktive 2014/35/EU. Den fullstämdia texterni IBL Viforsikara om

överensstämmelse finns på följande webbadress: www.ubnt.com/compliance

Online Resources

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Community community.ubnt.com

Downloads downloads.ubnt.com



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