BITSTREAM®

Fiber optic media converter
ERIS-100

Provide connectivity between devices over long distances.

Robust

Reliable

Strong

ERIS-100

100Mbps Ethernet Fiber Optic Media Converter

- ✓ Support for RJ45 10/100 Mbps interfaces to SFP 100 Mbps
- ✓ Standard secondary surge protection on RJ-45 port in transmission path, ITU-T K.44 4kV 10/700us in transmission path
- ✓ Operation in converter or switch mode
- ✓ LED indication of port status and device status
- ✓ LFPT (Link Fault Pass-Through) function
- ✓ Operating temperature: -40° to +75°C
- ✓ Optional PoE++ with support for up to 90W power per RJ45 port
- ✓ Optional PoE disconnect functionality via LFPT on RJ45 port
- ✓ Power supply range 6-60V DC

ERIS-100 functions

Lp.	Features	
1.	Supports 1x RJ45 10/100 Mbps to 1x SFP 100 Mbps interfaces	Standard
2.	Mode of operation as CONVERTER	Standard
3.	SWITCH mode	Standard
4.	LFPT (Link Fault Pass-Through) function	Standard
5.	Overvoltage protection **ITU-T K.44 4kV 10/700us** in transmission path	Standard
6.	Power supply range 6-60 V DC	Standard
7.	PoE++ IEEE 802.3at type 1/2 up to 90W	Optional
8.	PoE power disconnection via LFPT on RJ45 port	Optional

ERIS-100 features

Reliable

ERIS-100 device has been designed to withstand extreme environmental conditions. Additionally, the extended version ensures safe work in temperatures ranging from -40°C to 75°C.

Pew

The ERIS-100 model comes standard with built-in secondary overvoltage protection at the RJ-45 electrical port in the transmission path - ITU-T K.44, 4kV, 10/700us compliant: "*Resistibility tests for telecommunication equipment exposed to overvoltages and overcurrents - Basic Recommendation*".

Strong

An optional version of the Eris-100 fiber optic media converter can support PoE++.technology on the RJ45 port. On the electrical port, the maximum power that can be delivered to the device is 90W.

Technical specification

Supported EMC, safety* standards, recommendations and directives:

PN-EN 55032:2015-09	Electromagnetic compatibility for multimedia equipment	Emission Requirements.
PN-EN 55035:2017-09	Electromagnetic compatibility for multimedia equipment	Resistance requirements
PN-EN IEC 62368-1 :2020-11	Audio/visual, information technology and telecommunications equipment	Part 1: Safety requirements
EMC 2014/30/EU	EMC Electromagnetic Compatibility Directive.	
LVD 2014/35/EU	LVD Low Voltage Directive.	
IEC 61000-4-2	Electromagnetic Compatibility (EMC)	Part 4-2: Test methods and measurements - ESD immunity test
IEC 61000-4-3	Electromagnetic Compatibility (EMC)	*Part 4-3: Test and measurement methods - Testing for immunity to radiated radio frequency electromagnetic fields*
IEC 61000-4-4	Electromagnetic Compatibility (EMC)	Part 4-4: Test for immunity to a series of fast electrical transients
IEC 61000-4-5	Electromagnetic Compatibility (EMC)	Part 4-5: Test and measurement methods - Impact test
IEC 61000-4-6	Electromagnetic Compatibility (EMC)	Part 4-6: Test and measurement methods - Immunity test for conducted disturbances induced by radio frequency fields
IEC 61000-4-8	Electromagnetic Compatibility (EMC)	Part 4-8: Testing for immunity to mains frequency magnetic fields
IEC 61000-4-11	Electromagnetic Compatibility (EMC)	Part 4-11: Test and measurement methods -- Tests for resistance to voltage collapse, short-time interruptions and voltage changes for equipment with rated phase current up to 16 A

Supported transmission standards

- ✓ IEEE 802.3 10Base-T Ethernet
- ✓ IEEE 802.3u 100Base-TX Fast Ethernet
- ✓ IEEE 802.3af/at type 1/2 and PoE++ 90W for PoE++ option

Ethernet optical ports

- ✓ 1x 100BaseFX, SFP
- ✓ Parameters depending on the type of specified SFP insert
- ✓ Connection validity indication
- ✓ Transmission rate 155 Mbps
- ✓ Error rate ≤ 10^{-11}

Ethernet Electrical Ports

- ✓ 1x 10/100BaseT(X), RJ-45
- ✓ Full/half duplex
- ✓ Auto-sense MDI/MDI-X
- ✓ MTU up to 16kB
- ✓ Port ESD protection
- ✓ Standard secondary surge protection on RJ-45 port for trunk line, ITU-T K.44 4kV 10/700us

Physical characteristics - Standard enclosure

- ✓ Dimensions [HxWxD] Housing 103x69x26 mm
- ✓ Weight up to 200g
- ✓ Bracket for mounting on TH35 DIN rail

Supported protocols

- ✓ MDI/MDIX
- ✓ Full/half duplex
- ✓ LFPT (Link Fault Pass-Through)

PoE-PSE power supply

- ✓ Complies with IEEE802.3af, IEEE802.3at
- ✓ The power supply voltage range for the PoE - PoE++ version is 48-57V DC
- ✓ Offered max. power on RJ45 port up to 90W
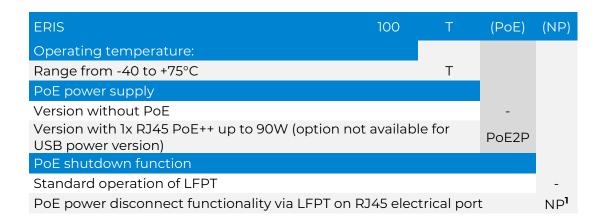
Power supply

- ✓ Supply voltage range 6 to 60V DC (for PoE 48-57V DC)
- ✓ Power consumption up to 3W (without PoE)
- ✓ Connector type: Screw

Environmental requirements

- ✓ Operating temperature: -40° to 75°C
- ✓ Humidity: 95% at +20C

ERIS-100-T-(PoE)-(NP.)

ERIS	100	T	(PoE)	(NP)
Operating temperature:				
Range from -40 to +75°C		T		
PoE power supply				
Version without PoE			-	
Version with 1x RJ45 PoE++ up to 90W (option not available for USB power version)			PoE2P	
PoE shutdown function				
Standard operation of LFPT				-
PoE power disconnect functionality via LFPT on RJ45 electrical port				NP[1]

Legend
1 - option available in PoE version

Example designations:

ERIS-100-T	ERIS media converter with 1x FO SFP (100M); 1x RJ45 (10/100M); standard built-in surge protector 4kV 10/700µs ITU K.44 on RJ45 port for transmission path; operating temperature from 40 to +75°C; power supply 6-60VDC
ERIS-100-T- PoE2P	ERIS media converter with 1x FO SFP (100M); 1x RJ45 (10/100M); PoE++ version with up to 90W on RJ45 port, 4kV 10/700µs ITU K.44 surge protection built in as standard on RJ45 port for transmission path, operating temperature from 40 to +75°C; power supply 6-60VDC (for PoE++ 55-57V DC)

Additional accessories

Designation	Transmission speed	Wavelength	Type FO	Distance	Insert type	WDM	Connector type	Operating temperature
BTP-8503-02TD	155 Mbps	850 nm	MM	2 km	SFP	-	LC	-40~85°C
BTP-3103-L2TD	155 Mbps	1310 nm	MM/SM	2/20 km	SFP	-	LC	-40~85°C
BTP-3103-L4TD	155 Mbps	1310 nm	SM	40 km	SFP	-	LC	-40~85°C
BTPB-3503L-L2TD	155 Mbps	1310/1550 nm	SM	20 km	SFP	YES	LC	-40~85°C
BTPB-5303L-L2TD	155 Mbps	1550/1310 nm	SM	20 km	SFP	YES	LC	-40~85°C
BTPB-3503S-L2TD	155 Mbps	1310/1550 nm	SM	20 km	SFP	YES	LC	-40~85°C
BTPB-5303S-L2TD	155 Mbps	1550/1310 nm	SM	20 km	SFP	YES	LC	-40~85°C
BTP-8503-02CD	155 Mbps	850 nm	MM	2 km	SFP	-	LC	0~70°C
BTP-3103-L2CD	155 Mbps	1310 nm	MM/SM	2/20 km	SFP	-	LC	0~70°C
BTP-3103-L4CD	155 Mbps	1310 nm	SM	40 km	SFP	-	LC	0~70°C
LT-19-TS-35-01	19" DIN rail for rack mounting. Dimensions: 19" x 1U x 110mm (depth). Weight: 0.6 kg. Possibility of mounting: up to 12 ERIS devices.							

List of proposed power supplies for BITSTREAM devices

Designation of the power supply	Output voltage range DC	Nominal output power	Number of ports with PoE (15W)	Number of ports with PoE+ (30W)	Number of ports with PoE++ (60W)	Number of ports with PoE++ (90W)	Operating temperature C-standard T-industry	Notes
ZAS-24-25-W-T	24 V	25 W	0	0	0	0	-30°C ~ +70°C	No PoE support
ZAS-48-25-W-T	48 V	25 W	1	0	0	0	-30°C ~ +70°C	
ZAS-24-20-R-T	24 V	20 W	0	0	0	0	-20°C ~ +70°C	No PoE support
ZAS-48V56-40-R-T	48 - 56 V	40 W	2	1	0	0	-20°C ~ +70°C	PoE support
ZAS-48V56-60-R-T	48 - 56 V	60 W	3	1	0	0	-20°C ~ +70°C	PoE support
ZAS-48V55-120-R-T	48 - 55 V	120 W	6	3	1	1	-20°C ~ +70°C	PoE support

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