PoE+ Network Switch

ELECTRA-S16F

- 16 Ports 10/100/1000M PoE+
- 2 X gigabit SFP uplink ports
- 2 X gigabit SFP combo uplink ports
- Back-plane bandwidth 36 Gbps
- 8K entry MAC address table
- 30Watt for Each PoE+ Port
- IEEE802.3x Flow control
- 19'' rack-mounted size
- Port and Power Lightning protection
- EMI standards complies with FCC, CE class A
- 2 year Warranty

Description

This 16 port Gigabit PoE+ switch with 2 Gigabit SFP and 2 Gigabit SFP Combo uplink ports is designed using a Broadcom Chipset. It provides 16 x 10/100/1000M RJ45 Ports all 16 are PoE+ Ports. The PoE+ ports can automatically detect and supply power for the IEEE802.3af and IEEE802.3at compliant Powered Devices (PDs), like Voip Phone, PoE APs, IP Phones, IP cameras, etc.

Protection

The switch also benefits from Lightning protection on both the power input and Lan ports.

Application

The ELECTRA-S-16 is a 19'' 1U high rack frame device which is useful for the small CCTV installation or as a floor switch in a building with multiple floors in an EDGE – CORE switch environment or even in a home solution.

POE+

16 PoE+ ports supporting both IEEE802.3af and IEEE802.3at Standard. Each port can output 30W max. Also 30 watts per port if cameras are connected to all 16 ports. The ELECTRA-S-16- has a power overhead of 500 WATT.

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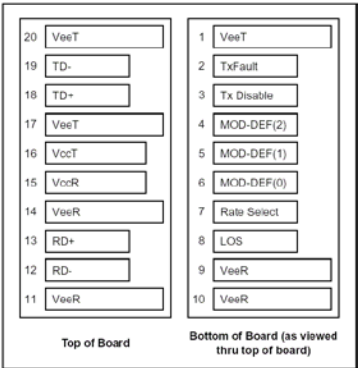Tempovej 41
2750 Ballerup
Denmark

Accessories

ELECTRA-S-SFP-C

1000 BASE-T Copper Small Form Pluggable (SFP) transceiver are based on the SFP Multi Source Agreement (MSA).They are compatible with the Gigabit Ethernet and 1000BASE-T standards as specified in IEEE Std 802.3 The 1000 BASE-T physical layer IC (PHY) can be accessed via I2C, allowing access to all PHY settings and features.

It supports a SERDES, does not have a link indication feature，and 1000BASE-X auto-negotiation should be disabled on host system
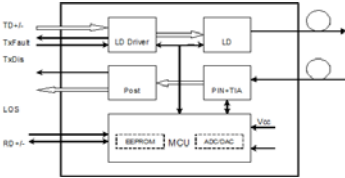
Part number: ELECTRA-S-SFP-C

Top of Board		Bottom of Board (as viewed thru top of board)	
20	VeeT	1	VeeT
19	TD-	2	TxFault
18	TD+	3	Tx Disable
17	VeeT	4	MOD-DEF(2)
16	VccT	5	MOD-DEF(1)
15	VccR	6	MOD-DEF(0)
14	VeeR	7	Rate Select
13	RD+	8	LOS
12	RD-	9	VeeR
11	VeeR	10	VeeR

ELECTRA-S-SFP-S

Small Form Factor Pluggable (SFP) transceiver are compatible with the Small Form Factor Pluggable Multi-Sourcing Agreement (MSA). The transceiver consists of five sections: the LD driver, the limiting amplifier, the digital diagnostic monitor, the VCSEL laser and the PIN photo-detector .The module data link up to 550m in 50/125um multi mode fiber.

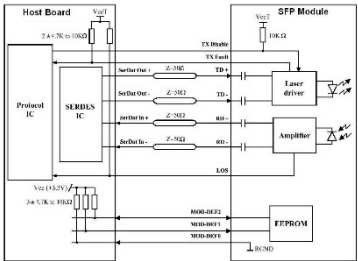**Part number: ELECTRA-S-SFP-S**

Module block diagram

ELECTRA-S-SFP-L

Small Form Factor Pluggable (SFP) transceiver are compatible with the Small Form Factor Pluggable Multi-Sourcing Agreement (MSA).

The transceiver consists of five sections: the LD driver, the limiting amplifier, the digital diagnostic monitor, the 1310nm FP laser and the PIN photo-detector.

The module data link up to 10KM in 9/125um single mode fiber.

Part number: ELECTRA-S-SFP-L

Recommend circuit schematic

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Technical Specification   ELECTRA-S-16F

Switching	
Switch Type	Unmanaged PoE+ Switch with 16 PoE+ ports and 4 SPF ports
Fixed Ports	16 X 10/100/1000Base-TX ports 4 X 1000M SFP ports
PoE+ Ports	16 X 10/100/1000Base-TX ports.
Uplink Ports	2 X 1000M SFP ports 2 X 1000M SFP combo ports *
PoE Standard	IEEE802.3af, IEEE802.3at, per port 15.4W and 30W(MAX),

Power	
LED Indicators	PWR, PoE, Link/Act LED.
Input voltage	100V～240V AC, 50/60Hz (for power adapter) 48VDC (for PoE switch)
Port PoE output	30W (MAX)
Power Supply	500W

Network	
Network Standard	IEEE 802.3 10Base-T, IEEE 802.3u 100Base-TX, IEEE 802.3x Flow Control, IEEE 802.3az
Network Media	10BASE-TX: UTP category 5, 5e cable (≤250m) 100BASE-TX: UTP category 5, 5e cable (≤150m) 1000BASE-TX: 148800pps/port Uplink Fiber Port: Single Fiber 20KM, Double Fiber: 20Km
Switching capacity	36Gb.
MAC address table	8K.
Traffic control	IEEE 802.3x full-duplex flow control.

* If you use all 4 SFP uplink ports , RG45 ports 15 and 16 will be utilised by the 2 combo ports.

Operating	
Operating temperature	0℃～40℃
Storage temperature	-10℃～70℃
Relative humidity	20%～85% (non-condensing)
Thermal methods	Built-in fans

General	
Package	ELECTRA-S-16 User Manual Power Cable Warranty Card
Pin assignment	V+ (RJ45 Pin 1, 2), V- (RJ45 Pin 3, 6)
Dimensions	19" 1U (482.60 mm x 44.45 mm)
Weight (Net)	Approx. 4500g
Warranty	2 years
Part number	ELECTRA-S16F

Optional accessories	
1000 BASE-T Copper (SFP) transceiver	ELECTRA-S-SFP-C
Single-mode SFP Transceiver	ELECTRA-S-SFP-L
Multi-mode SFP Transceiver	ELECTRA-S-SFP-S

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ELECTRA-S-SPF-L

ELECTRA-S-SPF-S

ELECTRA-S-SPF-C

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Tempovej 41
2750 Ballerup
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