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POE

Manufacturers

Silvertel	POE modules	link
Ring & Tone	POE modules, Silvertel analogs	link
ST	POE ic's	link
Kinetic (Akros Silicon)	POE ic's	link
Silan	POE ic's + many discretes	link
ICPLUS	POE PSE, Eth PHY, Eth SW	link
Hasivo	POE PSE, Eth eq	link
Onsemi	POE PD	link
MPS	POE PD	link
	compliance_approvals_ieee_802_3af	link

Theory

https://www.newnets.ru/knowledge/19942/

2 pair POE	IEEE802.3af (IEEE802.3at Type1)	up to 13W
2 pair POE+	IEEE802.3at Type2	up to 30W
4 pair POE	IEEE802.3bt Type3	up to 60W
4 pair POE	IEEE802.3bt Type4	up to 100W

In Power over Ethernet systems, the power sourcing equipment (PSE) senses the Ethernet connection to detect if the powered device (PD) is plugged into the cable termination by applying a small voltage (2.7 V to 10 V) on the Ethernet cable and measures the equivalent resistance in at least two consecutive steps. During this phase, the PD must present a resistance between 23.75 kΩ and 26.25 kΩ.

Designers can set the current by changing the value of the external resistor according to the following table:

Table 7: Value of the external classification resistor for the different PD classes of power

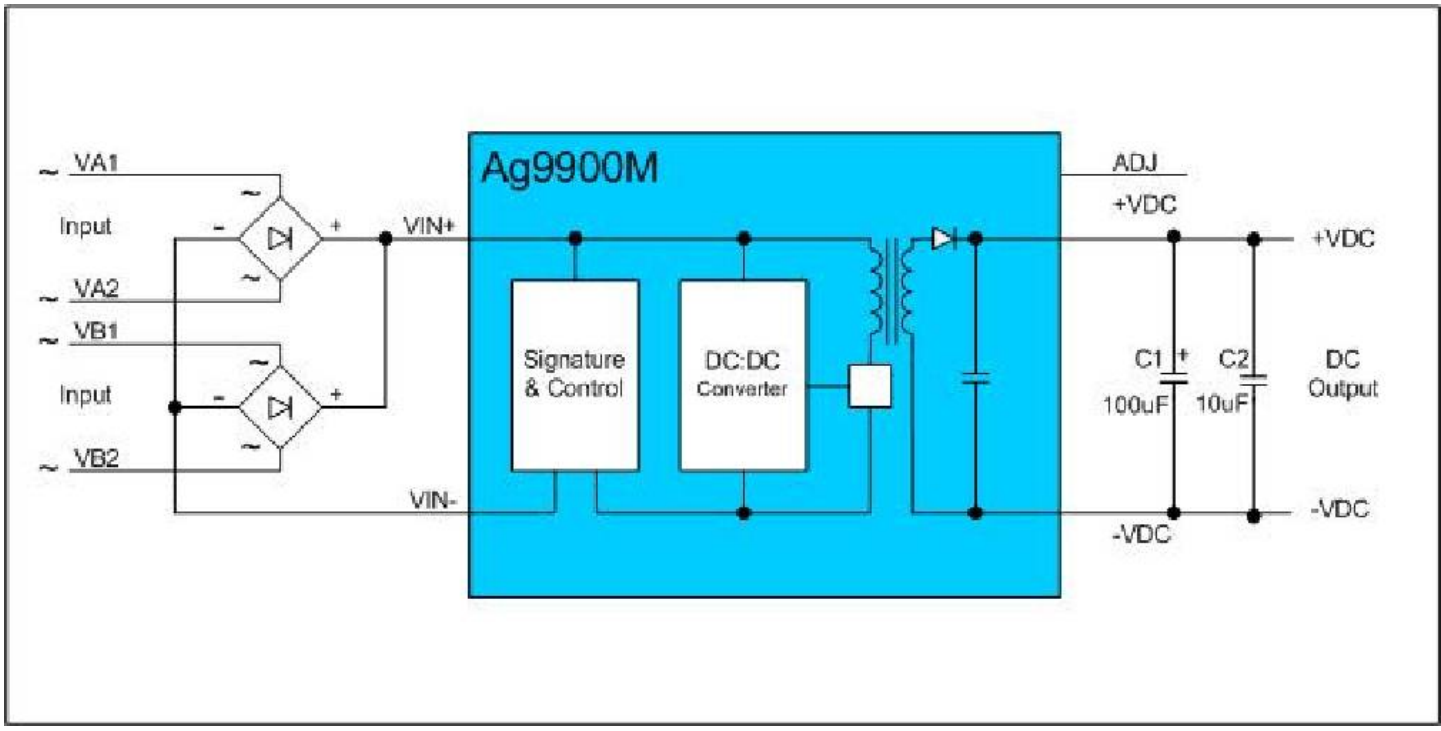
Class	PD max. average power (W)	RCLS (Ω)
0	13	2k
1	3.84	150
2	6.49	80.6
3	13	51.1
4	25.5	35.6

PSE - power sourcing equipment

https://svanheule.net/switches/software/poe_management

Link	Manufacturer	P\N	type	POE standart
link	TI	TPS2384	ic	IEEE 802.3af
link	TI	TPS23861PWR	ic	IEEE 802.3at
link	Analog Devices	LTC4263IDEPBF	ic	IEEE 802.3af

PD - powered device



https://www.skyworksinc.com/-/media/Skyworks/SL/documents/public/application-notes/an1130-si3404-06x-dg.pdf

POE PD модули

https://wiki.inmys.ru/doku.php?id=wiki:power:poe:start

POE PD микросхемы

Link	Manufacturer	P\N	type	POE standart	Struct	Price	Price link
	Onsemi	NCP1090	ic	IEEE 802.3af	cntrl		
	Onsemi	NCP1091	ic	IEEE 802.3af	cntrl		
	Onsemi	NCP1092	ic	IEEE 802.3af	cntrl		
link	TI	TPS2375PW-1	ic	IEEE 802.3af	cntrl		
link	TI	TPS2375-77	ic	IEEE 802.3af	cntrl		
link	CHIPUP	**XS2100S**	ic	IEEE 802.3at	cntrl	~0.4$	https://sds.compel.ru/infosheet/CHIPUP/XS2100S
	Silan	SD4928	ic	IEEE 802.3bt	cntrl		

Link	Manufacturer	P\N	type	POE standart	Struct	Price	Price link
	Silan	SD4924S	ic	IEEE 802.3at	cntrl		
	Silan	SD4923E	ic	IEEE 802.3at	cntrl		
link	ST	PM8804	ic		dcdc	~2$	https://sds.compel.ru/infosheet/ST/PM8804TR
link	ST	PM8800 (NRND)	ic	IEEE 802.3af	cntrl + dcdc	~5$	https://sds.compel.ru/infosheet/ST/PM8800A
link	ST	PM8803	ic	IEEE 802.3at	cntrl + dcdc		
link	ST	PM8805	ic	IEEE 802.3bt	cntrl + dcdc	~15$	https://sds.compel.ru/infosheet/ST/PM8805TR
link	Onsemi	NCP1083DEG	ic	IEEE 802.3at	cntrl + dcdc		
link	Onsemi	NCP1081DEG	ic	IEEE 802.3at	cntrl + dcdc		
link	Onsemi	NCP1081DER2G	ic	IEEE 802.3at	cntrl + dcdc		
link	TI	TPS2378	ic	IEEE 802.3at	cntrl + dcdc		
link	TI	LM5071	ic	IEEE 802.3af	cntrl + dcdc		
link	TI	TPS23750PWPR	ic	IEEE 802.3af	cntrl + dcdc		
link	TI	LM5072MHX-80	ic	IEEE 802.3af	cntrl + dcdc		
link	Kinetic	KTA1136	ic	IEEE 802.3af	cntrl + dcdc		
link	Kinetic	KTA1137A	ic	IEEE 802.3at	cntrl + dcdc		
	Microchip	PD70101	ic				
	Microchip	PD70201	ic				
	MPS	MP8009AGV-P	ic				
	MPS	MP8003A	ic				
	MPS	MP8001DS-LF-Z	ic				
	MPS	MP8004	ic				
	MPS	MP8005	ic				
	Skyworks	SI3404	ic				
	Skyworks	SI3406	ic				
	NXP	MCZ34670EG	ic			~6$?	
	Silan	SD4950	ic	IEEE 802.3af	cntrl + dcdc		
	Silan	SD4952B	ic	IEEE 802.3af	cntrl + dcdc		
	Maxim						
	Analog Devices						
	Linear						
	Infineon						
	Microsemi						