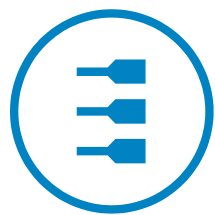
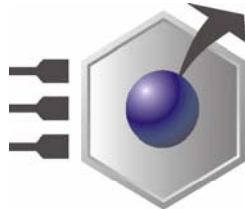


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An0059

ACS-9071: User Manual

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ABOUT THIS MANUAL

This application note contains information regarding the following items:

- New versions: ACS-9071-05, ACS-9071-06, ACS-9071-07 and ACS-9071-08
- Old Versions: ACS-9071-00, ACS-9071-01, ACS-9071-02, ACS-9071-03 and ACS-9071-04



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Chapter 1 ACS-9071

The ACS-9071-xx is a 10/100Mb RJ45 Ethernet adaptor for use on various Eurotech CPU modules; on the following pages you will find various technical details relating to the main adaptor module

For information relating to specific CPU modules refer to Chapter 2; the only difference between model numbers is the cable supplied for connecting the adaptor to the CPU module.

Jumpers

The following jumpers can be found on the ACS-9071-xx:

Jumper #	Description	Inserted	Not inserted
JP1	Select Termination	Realtek 8139B / 8139C	Intel 82562ET
JP2	Select Termination	Realtek 8139C	Intel 82562ET
JP3	Select Termination	Realtek 8139B / 8139C	Intel 82562ET

Table 1. AVS-9071 Jumpers

The following table shows the jumper configuration for various CPU model numbers and the installed network chipset:

Model #	Chipset	JP1	JP2	JP3	ACS-9071-xx **
CPU-1220	Realtek 8139B	Closed	Closed	Open	05
CPU-1220	Realtek 8139C	Closed	Closed	Closed	05
CPU-1232	Realtek 8139C	Closed	Closed	Closed	05
CPU-1233	Realtek 8139D	Closed	Closed	Open	05
CPU-1420	Realtek 8139C	Closed	Closed	Closed	06 or 07
CPU-1432	Realtek 8139C	Closed	Closed	Closed	06
CPU-1433	Realtek 8139D	Closed	Closed	Open	06
CPU-1450	Intel 82562ET	Open	Open	Open	08
CPU-1460	Intel 82562ET	Open	Open	Open	08
CPU-1451	Intel 82562ET	Open	Open	Open	08
CPU-1461	Intel 82562ET	Open	Open	Open	08
CPU-1453	Intel 82562ET	Open	Open	Open	08
CPU-1463	Intel 82562ET	Open	Open	Open	08
CPU-1850	Intel 82562ET	Open	Open	Open	08

** The final two digits refer to the supplied cable; refer to Chapter 2 for further information

Please note that Cpu1220 require different jumper configuration for different Realtek chip installed.

Connectors

The adaptor has two connectors as follows:

- J1 is a 10pin (5x2, 2.54mm pitch) connector
- J2 is the RJ45 connector

Pin #	Description	Pin #	Description
1	VCC	6	GND0
2	LED0 (Activity)	7	LED2 (n.c.)
3	RX+	8	GND1
4	RX-	9	TX+
5	LED1 (Link)	10	TX-

Table 2. J1 pinout

Please note that VCC on pin #1 is an output from the CPU module and can be used only for LED anode supply.

Value of VCC on pin #1 can vary from 5V to 3.3V based on the CPU module .

Schematic Diagrams

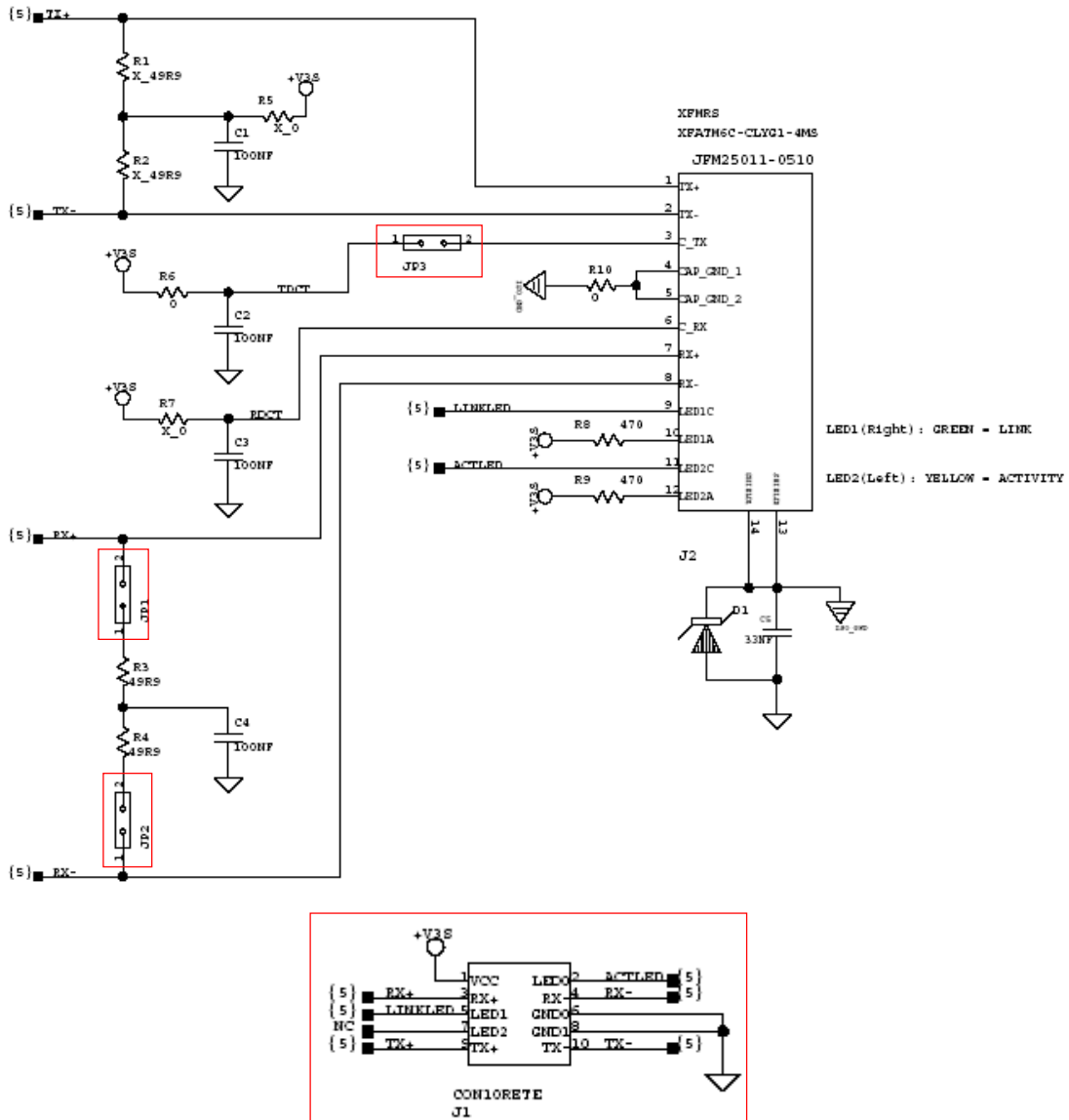


Figure 1. Schematic Diagram of the ACS-9071

Note on C2 and C3:

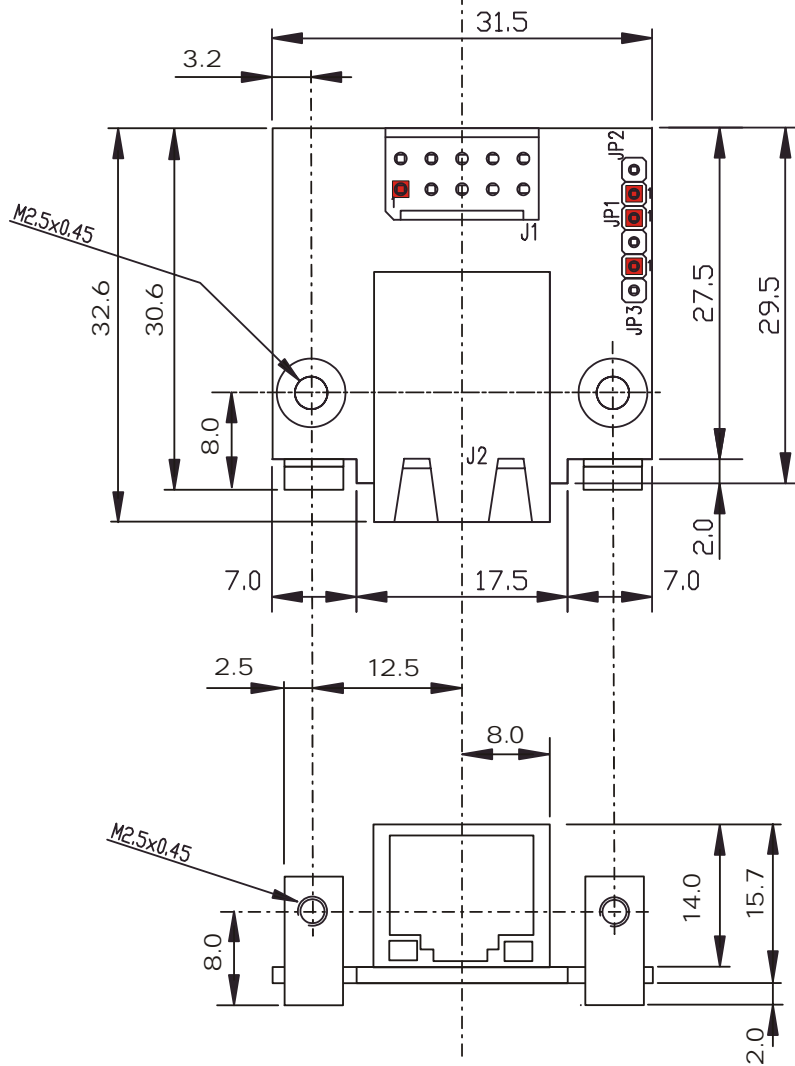
These capacitors are useful for EMI compliance

Excessive capacitance can slow the 100 Mbps rise and fall times .

Unless there is some overshoot in the 100 Mbps mode, these caps are not necessary.

Mechanical Dimensions

Figure 2. ACS-9071 Dimensions (mm)



Note: Pin 1 of each Connector and Jumper is marked with a Red pad, on the actual article pin 1 is marked with a square pad on the bottom side of the adaptor

Chapter 2 Model Variations

The ACS-9071 is available with various cables for use with a range of CPU models

ACS-9071-05:

Supplied Components:

- 10/100Mb RJ45 Adaptor with built in transformer
- Part Number 7000000091: Cable for use with the CPU-1220 and CPU-1232, CPU-1233

Cable description:

- P1: 10pin (5x2, 2.54mm pitch)
- P2: 10pin (5x2, 2.54mm pitch)

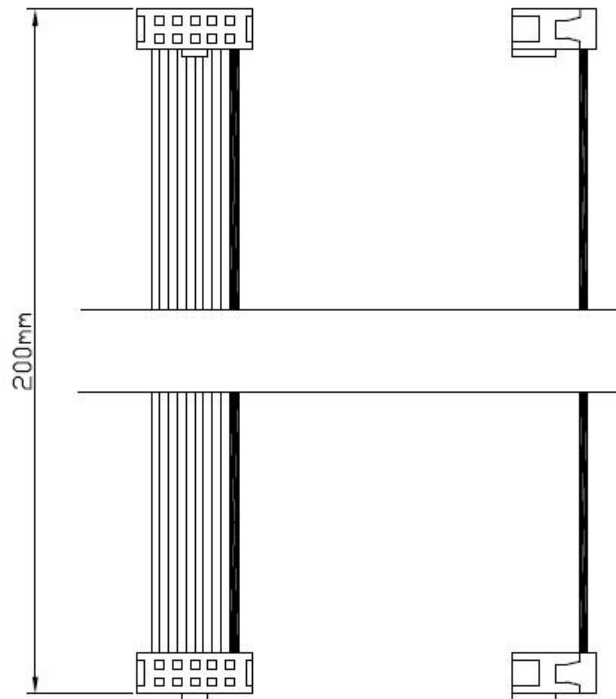


Figure 3. Part Number 7000000091

ACS-9071-06:

Supplied Components:

- 10/100Mb RJ45 Adaptor with built in transformer
- Part Number 7000000125: Cable for use with the CPU-1420 and CPU-1432, CPU-1433

Cable description:

- P1: IDC 26pin (13x2, 2.00mm pitch) female
- P2: Multifunction: 10pin (5x2, 2.54mm pitch)
- P3: Mouse: 4pin (4x1, 2.54mm pitch) MODU II
- P4: VGA: D-sub 15pin Female HD
- P5: Ethernet 10pin (5x2, 2.54mm pitch)

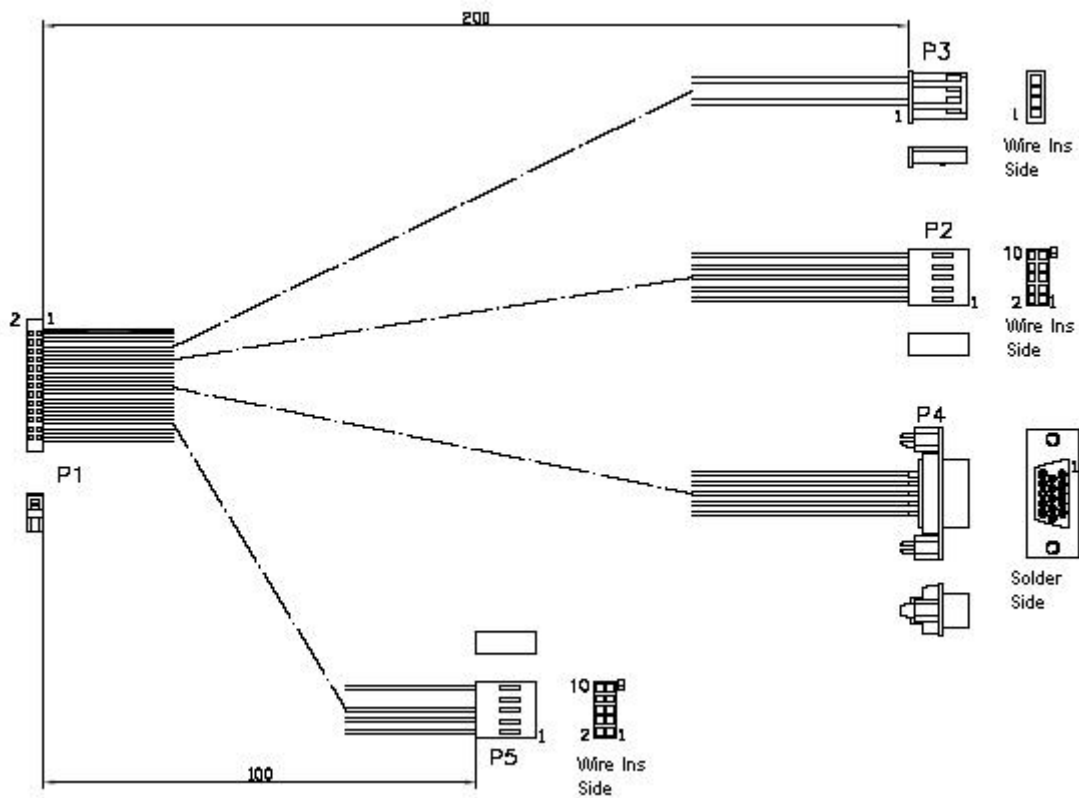


Figure 4. Part Number 7000000125

ACS-9071-07:

Supplied Components:

- 10/100Mb RJ45 Adaptor with built in transformer
- Part Number 7030000073: Cable for use with CPU-1420 (CPU Connector J5)

Cable description:

- P1: Hirose 40pin (20x2, 1.25mm pitch)
- P2: Timer, GPIO: 10pin (5x2, 2.54mm pitch)
- P3: Ethernet: 10pin (5x2, 2.54mm pitch)
- P4: COM3: 10pin (5x2, 2.54mm pitch)
- P5: COM4: 10pin (5x2, 2.54mm pitch)

Note: pins 19 to 22 not connected

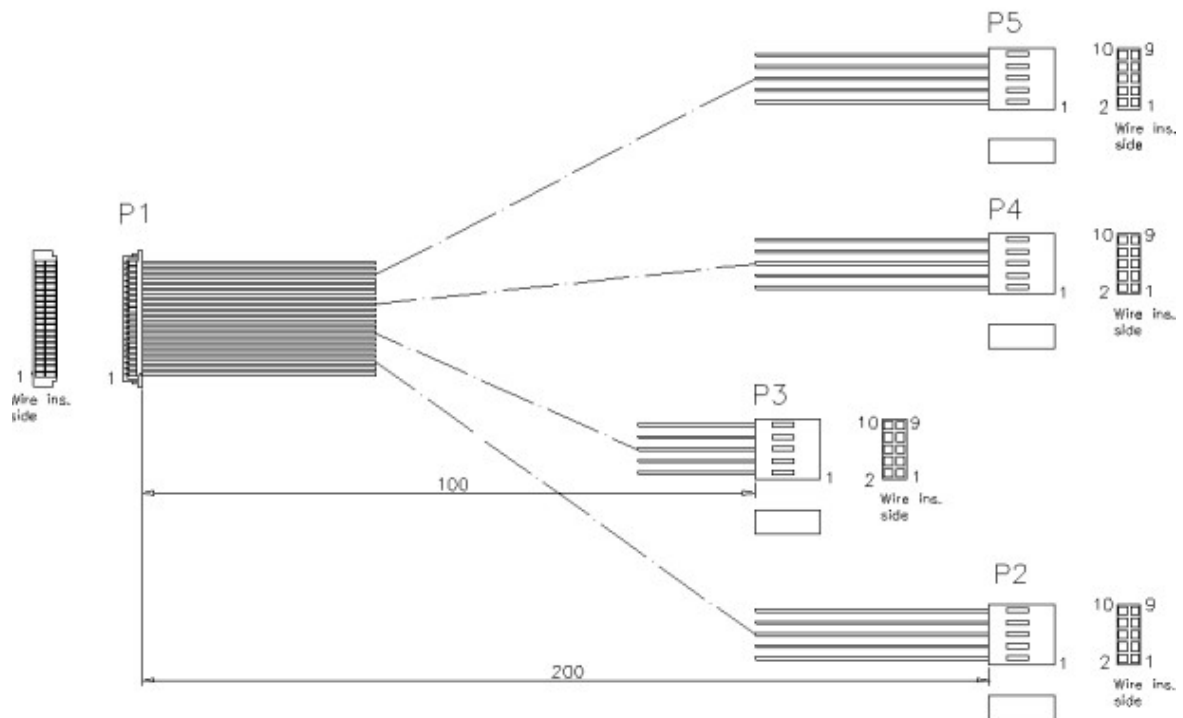


Figure 5. Part Number 7030000073

ACS-9071-08:

Supplied Components:

- 10/100Mb RJ45 Adaptor with built in transformer
- Part Number 7030000163: Cable for CPU-145x, CPU-146x and CPU-1850 (CPU Connector J12)

Cable description:

- P1: 8pin (8x1, 2.00mm pitch) female
- P2: 10pin (5x2, 2.54mm pitch) female

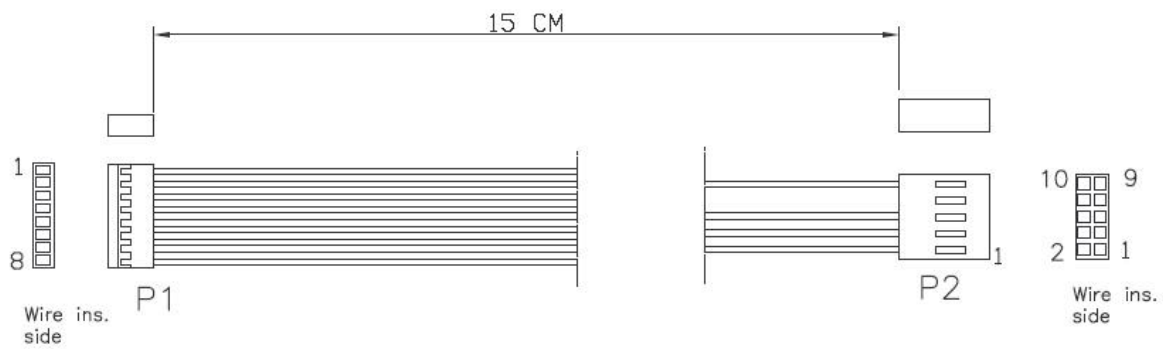


Figure 6. Part Number 7030000163

Chapter 3 Ordering information

The following table shows CPU model numbers and associated part numbers to use when ordering:

CPU Model Number	Ethernet adaptor Part Number	Description
CPU-1220	ACS-9071-05	RJ45 Ethernet 10/100 adapter for CPU-1220 and CPU-1232
CPU-1232	ACS-9071-05	RJ45 Ethernet 10/100 adapter for CPU-1220 and CPU-1232
CPU-1420	ACS-9071-06	RJ45 Ethernet 10/100 adapter for CPU-1420 and CPU-1432
CPU-1420	ACS-9071-07	RJ45 Second Ethernet 10/100 adapter for CPU-1420
CPU-1432	ACS-9071-06	RJ45 Ethernet 10/100 adapter for CPU-1420 and CPU-1432
CPU-1450	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1460	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1451	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1461	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1453	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1463	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850
CPU-1850	ACS-9071-08	RJ45 Ethernet 10/100 adapter for CPU-145x/146x and CPU-1850

For further information regarding availability and pricing contact the Eurotech sales team:

Email: Sales@eurotech.it

Chapter 4 Older Versions of the ACS-9071

This section is a quick reference for users who have the older version of the ACS-9071 Ethernet adaptor, this model can be identified as it has the transformer visible between the RJ45 input and the cable connector.

ACS-9071-00 to ACS-9071-04

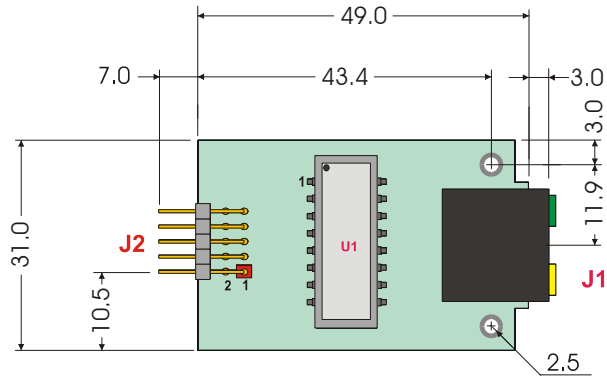


Figure 7. ACS-9071-00 to ACS-9071-04, Mechanical Dimensions

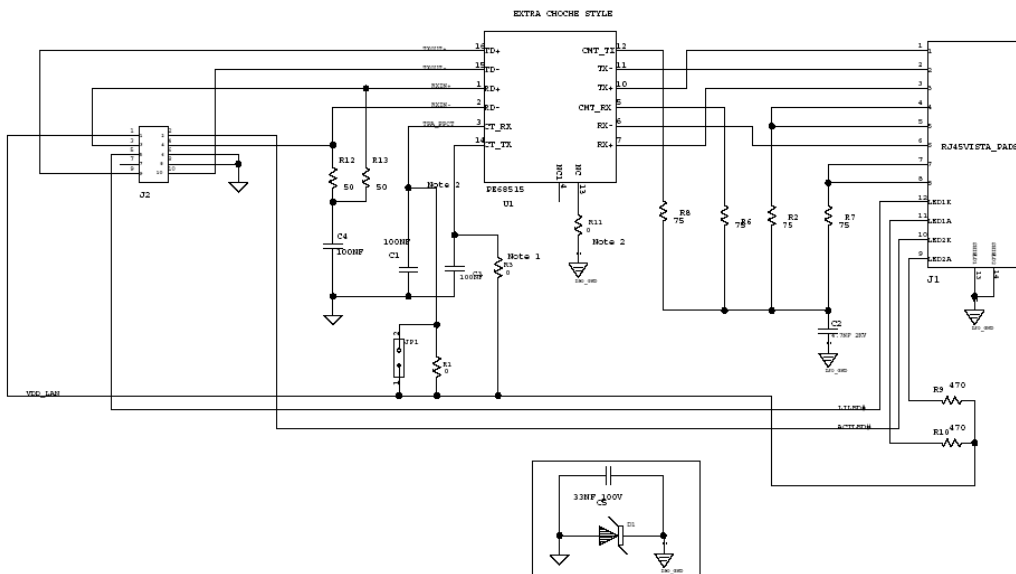


Figure 8. ACS-9071-00 Schematic Diagram

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