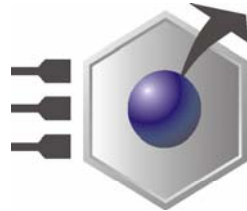


***EmbeddedDNA***<sup>®</sup>



***An0034***

**CPU-1220 Cable-set**

Rev. 4.0

Apr. 2006

COPYRIGHT 1994-2006 Eurotech S.p.A. All Rights Reserved.

## ABOUT THIS MANUAL

This application note contains information regarding cable-set components for the CPU-1220



Via J. Linussio 1  
33020 AMARO (UD)  
ITALY  
Phone: +39.0433.485.411  
Fax: +39.0433.485.499

Website: [www.eurotech.it](http://www.eurotech.it)  
E-mail: [sales@eurotech.it](mailto:sales@eurotech.it)

## NOTICE



**Although all the information contained herein has been carefully verified, Eurotech S.p.A. assumes no responsibility for errors that might appear in this document, or for damage to property or persons resulting from an improper use of this manual and of the related software. Eurotech S.p.A. reserves the right to change the contents and form of this document, as well as the features and specifications of its products at any time, without notice.**

Trademarks and registered trademarks appearing in this document are the property of their respective owners

---

## Conventions

The following table lists conventions used throughout this guide.

Icon	Notice Type	Description
	<b>Information note</b>	Important features or instructions
	<b>Warning</b>	Information to alert you to potential damage to a program, system or device or potential personal injury

### Abbreviations

NC: Not Connected

(This page is intentionally left blank.)

# Contents

---

Conventions .....	3
<b>Contents</b> .....	<b>5</b>
<b>Chapter 1 Component details</b> .....	<b>7</b>
Cable-set components .....	8
Additional components .....	9
<b>Chapter 2 Technical information</b> .....	<b>11</b>
7000000045: IDE / Disk-On-Module .....	12
7000000030: Serial connector (2 pieces).....	13
7000000031: Parallel connector .....	14
7000000032: 2 Serial connectors .....	15
7000000095: VGA .....	16
ACS-6000-00: Parallel to Floppy drive(s) adaptor set.....	17
ACS-9072-00: Multifunction adaptor .....	20
7020000011: Auxiliary power .....	21
7030000054: CPU Mouse to Multifunction Adaptor.....	22
7000000105: CPU to Multifunction adaptor.....	23
ACS-9071-05: 1x RJ45 Ethernet 10/100MB adaptor .....	24
Related Documents.....	25
Where to find us .....	25

(This page is intentionally left blank.)

## Chapter 1 Component details

---

This chapter gives a brief description of all the components available in the cable-sets and also additionally available components, please refer to the table below for the revision numbers of the cable-sets:

Cable-set Part Number	For use with:	Cable-set Revision Date
CBL-1220-00	CPU-1220-xx	30 Nov 2005

## Cable-set components

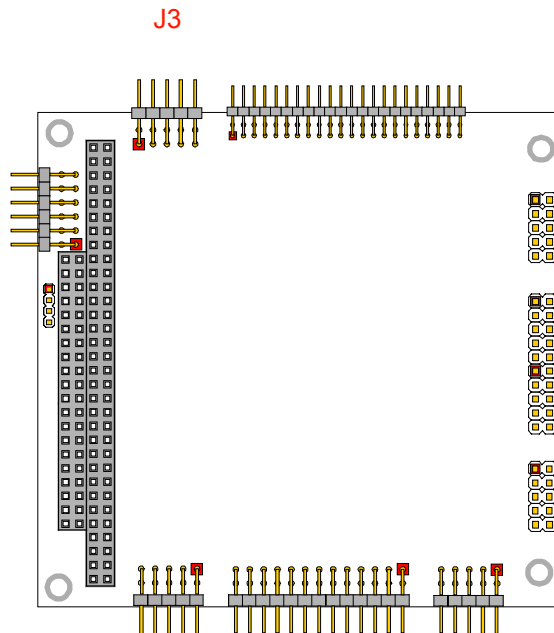


Figure 1 Connector layout on the CPU-1220 module (for reference only)

Qty.	Eurotech Part #	Relevant CPU Connector	Type	Description	Technical page #
1	7000000045	Cable	J13	IDE and Disk-on-module	12
2	7000000030	Cable	J6 or J7	Serial port 1 or 2	13
1	7000000032	Cable	J8 and J10	Serial port 3 & 4	15
1	7000000031	Cable	J11	Parallel	14
1	7000000095	Cable	J3	VGA	16
1	7030000054	Cable	J12	Mouse	22
1	7020000011	Cable	J16	Auxiliary power	21
1	ACS-6000-00	Adaptor	--	Parallel to Floppy disc	17
1	7000000105	Cable	J5	CPU to Multifunction adaptor	23
1	ACS-9072-00	Adaptor	--	Multifunction adaptor	20

Table 1 Components available in the CBL-1220-00 Cable-set



---

## Additional components

The following table shows a list of accessories that can be ordered separately, for pricing and availability contact your supplier quoting the Eurotech Part number and Quantity required:

<b>Eurotech Part #</b>	<b>Qty.</b>	<b>CPU Model #</b>	<b>CPU Connector</b>	<b>Type</b>	<b>Description</b>	<b>Ref page</b>
ACS-9071-05	1	CPU-1220	J4	Adaptor set	RJ45 10/100MB Ethernet	24

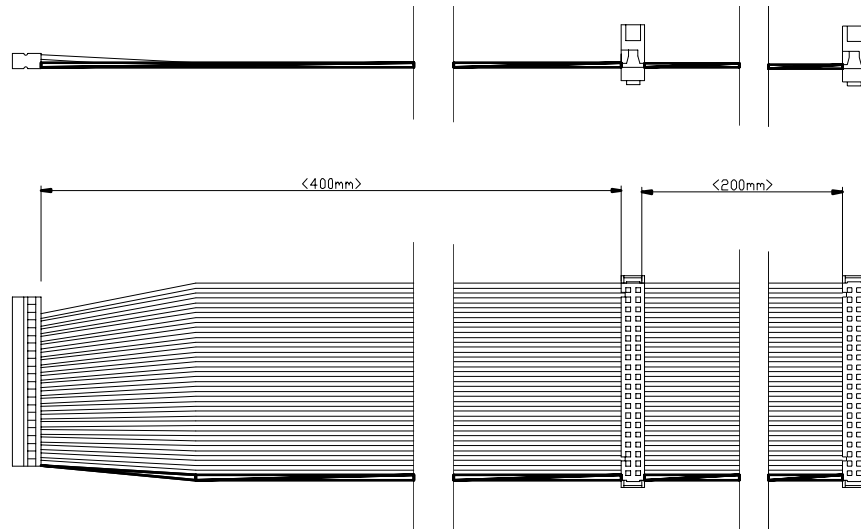
(This page is intentionally left blank.)

## **Chapter 2 Technical information**

---

The following pages describe the assorted cables and adaptors in more detail.

## 700000045: IDE / Disk-On-Module



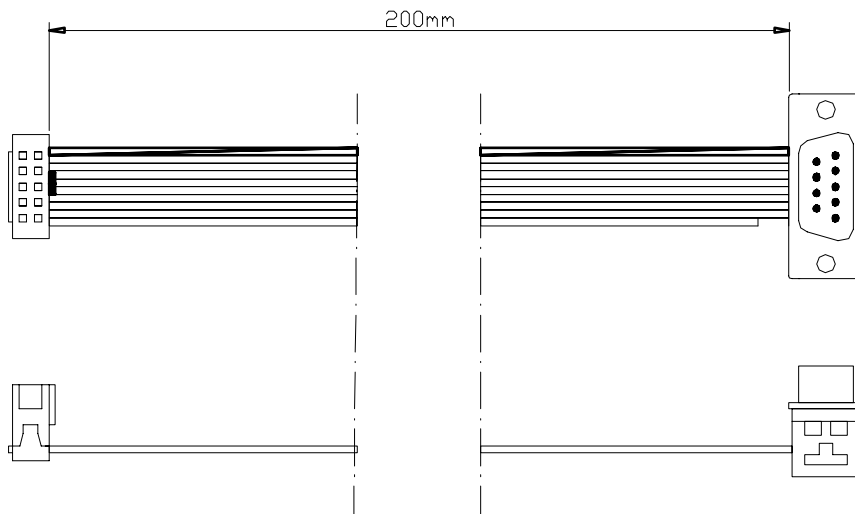
Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J13	44	22x2	2.00
P2 & P3	Disc 1 & 2	40	20x2	2.54

P1 Pin	Description	Direction	Connector	Pin	P1 Pin	Description	Direction	Connector	Pin
1	RESET	>	P2 / P3	1	23	DIOW*	>	P2 / P3	23
2	Ground		P2 / P3	2	24	Ground		P2 / P3	24
3	DD7	<>	P2 / P3	3	25	DIOR*	>	P2 / P3	25
4	DD8	<>	P2 / P3	4	26	Ground		P2 / P3	26
5	DD6	<>	P2 / P3	5	27	IORDY	<	P2 / P3	27
6	DD9	<>	P2 / P3	6	28	Reserved		P2 / P3	28
7	DD5	<>	P2 / P3	7	29	DMACK*	>	P2 / P3	29
8	DD10	<>	P2 / P3	8	30	Ground		P2 / P3	30
9	DD4	<>	P2 / P3	9	31	INTRQ	<	P2 / P3	31
10	DD11	<>	P2 / P3	10	32	IOCS16*	<	P2 / P3	32
11	DD3	<>	P2 / P3	11	33	DA1	>	P2 / P3	33
12	DD12	<>	P2 / P3	12	34	PDIAG*	**	P2 / P3	34
13	DD2	<>	P2 / P3	13	35	DA0	>	P2 / P3	35
14	DD13	<>	P2 / P3	14	36	DA2	>	P2 / P3	36
15	DD1	<>	P2 / P3	15	37	CS1FX*	>	P2 / P3	37
16	DD14	<>	P2 / P3	16	38	CS3FX*	>	P2 / P3	38
17	DD0	<>	P2 / P3	17	39	DASP*	<	P2 / P3	39
18	DD15	<>	P2 / P3	18	40	Ground		P2 / P3	40
19	Ground		P2 / P3	19	41	NC	-	-	-
20	Key Pin		P2 / P3	20	42	NC	-	-	-
21	DMARQ	<	P2 / P3	21	43	NC	-	-	-
22	Ground		P2 / P3	22	44	NC	-	-	-

### Notes:

- \* = Active Low
- > = To drive from controller
- < = To controller from drive
- \*\* = Drive to drive intercommunication

**700000030: Serial connector (2 pieces)**

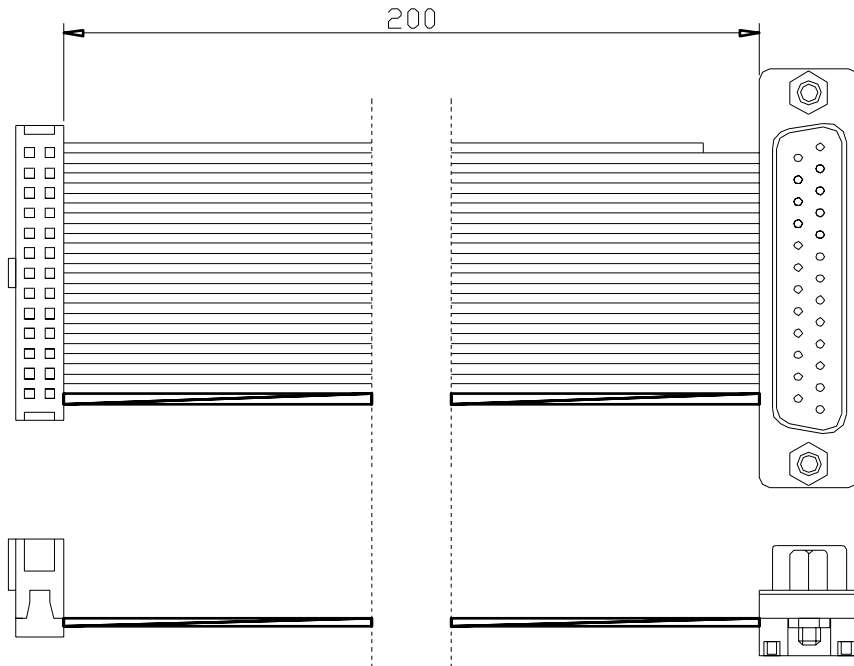


Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J6 or J7	10	5x2	2.54
P2	COM 1 or COM 2	9	DB9 Male	-

P1 Pin #	Description	P2 Pin #
1	DCD	1
2	DSR	6
3	RX	2
4	RTS	7
5	TX	3

P1 Pin #	Description	P2 Pin #
6	CTS	8
7	DTR	4
8	RI	9
9	Ground	5
10	Ground	-

**700000031: Parallel connector**

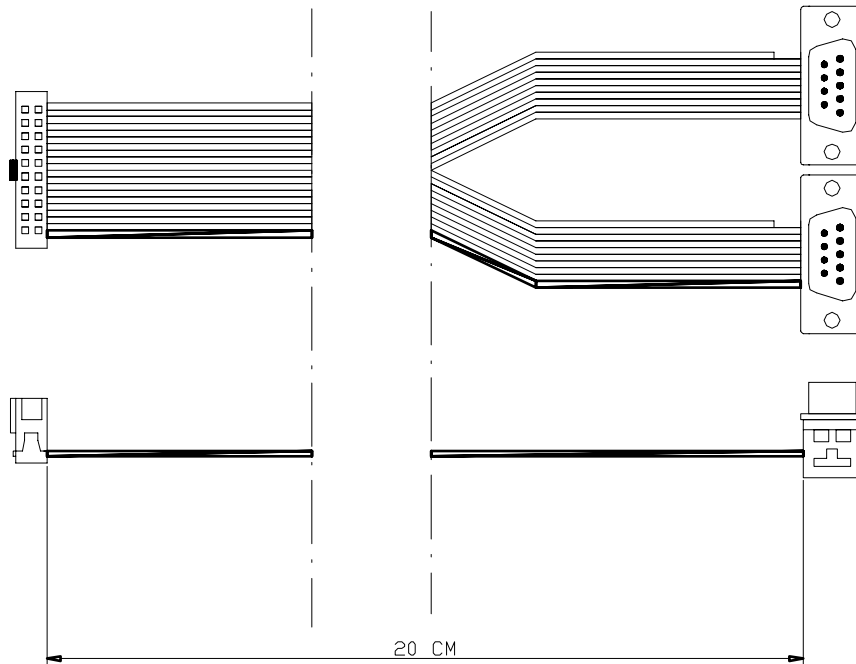


Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J11	26	13x2	2.54
P2	Parallel Port	25	DB25 Female	-

P1 Pin #	Description	P2 Pin #	P1 Pin #	Description	P2 Pin #
1	STB#	1	14	GND	20
2	AFD#	14	15	PD6	8
3	PD0	2	16	GND	21
4	ERR#	15	17	PD7	9
5	PD1	3	18	GND	
6	INIT#	16	19	ACK#	10
7	PD2	4	20	GND	
8	SLIN#	17	21	BSY	11
9	PD3	5	22	GND	
10	GND	18	23	PE	12
11	PD4	6	24	GND	
12	GND	19	25	SLCT	13
13	PD5	7	26	NC	26

"#" = Active low signal

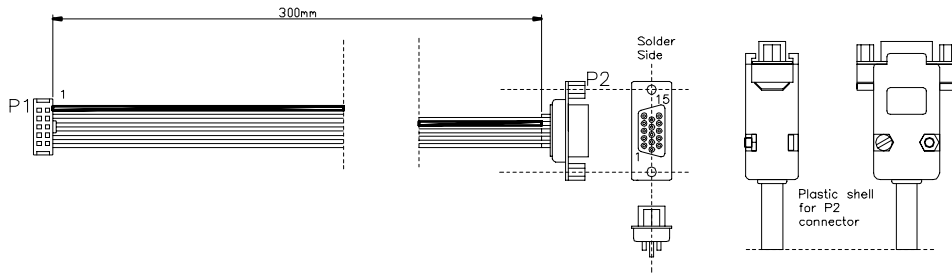
**700000032: 2 Serial connectors**



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J8 and J10	20	10x2	2.54
P2 & P3	COM 3 & COM 4	9	DB9 Male	-

P1 Pin #	Description	P2 Pin #	P1 Pin #	Description	P3 Pin #
1	DCD	1	11	DCD	1
2	DSR	6	12	DSR	6
3	RX	2	13	RX	2
4	RTS	7	14	RTS	7
5	TX	3	15	TX	3
6	CTS	8	16	CTS	8
7	DTR	4	17	DTR	4
8	RI	9	18	RI	9
9	Ground	5	19	Ground	5
10	Ground	-	20	Ground	-

**7000000095: VGA**



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J3	10	5x2	2.54
P2	VGA	15	DB15 Female	-

P1 Pin #	Description	P2 Pin #
1	VSYNC	14
2	HSYNC	13
3	DDC0	12
4	RED	1
5	DDC1	15

P1 Pin #	Description	P2 Pin #
6	GREEN	2
7	NC	-
8	BLUE	3
9	AGND	6, 7, 8
10	GND	5, 10

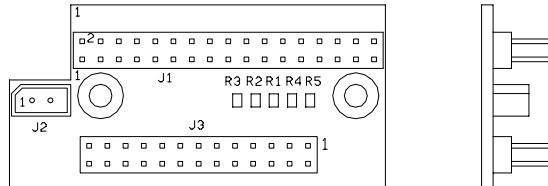


## ACS-6000-00: Parallel to Floppy drive(s) adaptor set

### Package Contents:

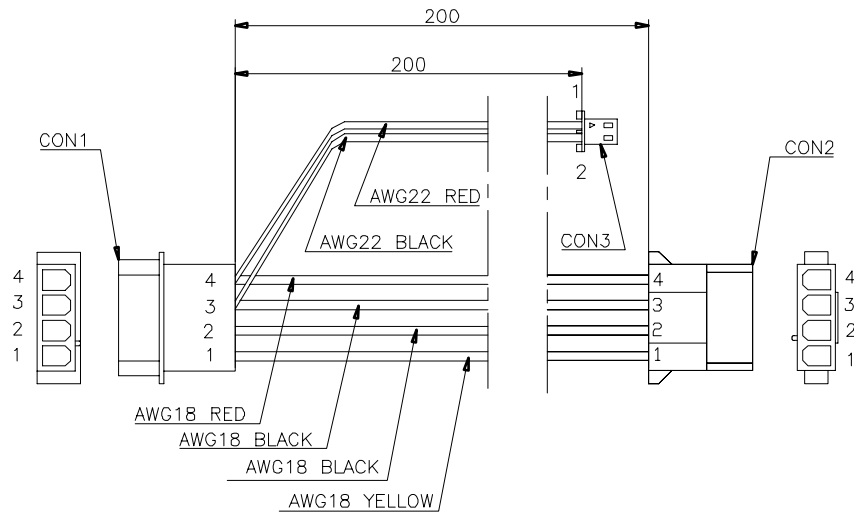
Qty	Part Number	Description
1	ACS-9071	Parallel to Floppy disc adaptor
1	7030000120	Cable form: Power supply to ACS-6000
1	7000000002	Cable form: CPU J11 to ACS-6000
1	7000000003	Cable form: ACS-6000 to Floppy disc 1 and 2

### ACS-6000-00:



Component Label	Description	Pins	Format	Pitch (mm)
J1	To Floppy disc 1 & 2	34	17x2	2.54
J2	Power	2	Male	-
J3	From CPU J11	26	13x2	2.54

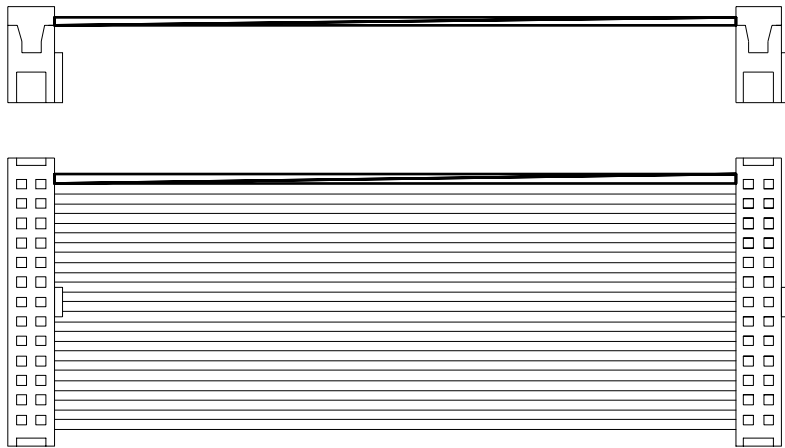
### 7030000120:



Connector #	QTY Pins	Format
CON1	4	Male
CON2	4	Female
CON3	2	Female

P1 Pin #	Description	CON 2	CON 3	P1 Pin #	Description	CON 2	CON 3
1	+12 V (Yellow)	1	NC	18	Ground (Black)	3	2
2	Ground (Black)	2	NC	19	+5V (RED)	4	1

700000002:

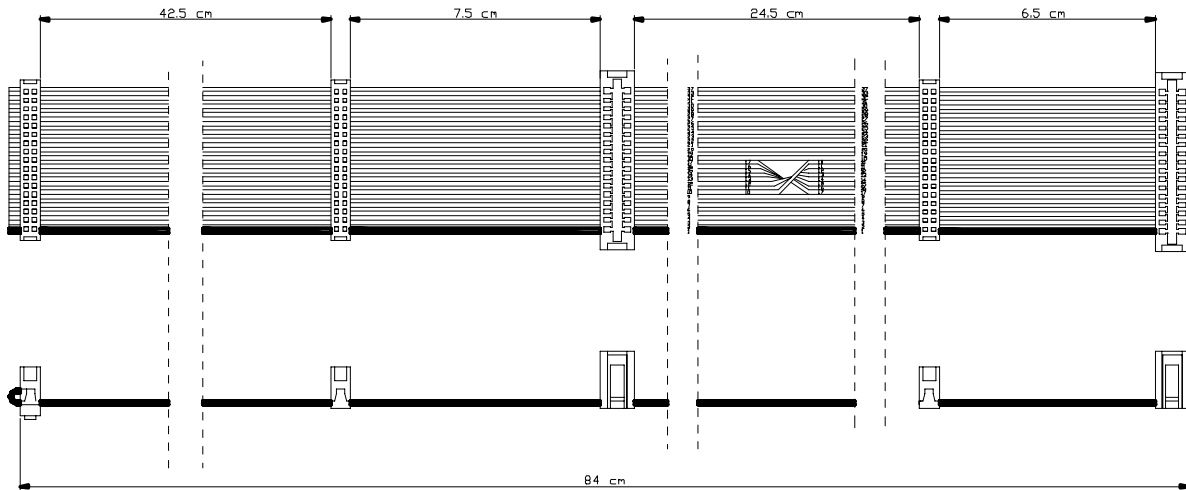


Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J11	26	13x2	2.54
P2	ACS-6000	26	13x2	2.54

P1 Pin #	Description	P2 Pin #	P1 Pin #	Description	P2 Pin #
1	DSO#	1	14	Ground	14
2	DENSL#	2	15	MTR0#	15
3	INDEX#	3	16	Ground	16
4	HDSEL#	4	17	MEDIA-ID1#	17
5	TRK0#	5	18	Ground	8
6	DIR#	6	19	DS1#	19
7	WP#	7	20	Ground	20
8	STEP#	8	21	MTR1#	21
9	RDATA#	9	22	Ground	22
10	Ground	10	23	WDATA#	23
11	DSKCHG#	11	24	Ground	24
12	Ground	12	25	WGATE#	25
13	MEDIA-ID0#	13	26	---	26

**Note:** “#” Signal active low

700000003:



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	ACS-6000-00	34	17x2	2.54
P2	Floppy 1	34	17x2	2.54
P3	Floppy 1	34	Card Edge	-
P4	Floppy 2	34	17x2	2.54
P5	Floppy 2	34	Card Edge	-

P1 Pin #	Description	P2 / 3 Pin #	P4 / 5 Pin #
1	Ground	1	1
2	DRVDEN0	2	2
3	Ground	3	3
4	NC	4	4
5	Ground	5	5
6	DRVDEN1	6	6
7	Ground	7	7
8	INDEX	8	8
9	Ground	9	9
10	MOTEN1	10	16
11	Ground	11	15
12	DRVSEL1	12	14
13	Ground	13	13
14	DRVSEL2	14	12
15	Ground	15	11
16	MOTEN2	16	10
17	Ground	17	17

P1 Pin #	Description	P2 / 3 Pin #	P4 / 5 Pin #
18	DIRECTION	18	18
19	Ground	19	19
20	STEP	20	20
21	Ground	21	21
22	WRDATA	22	22
23	Ground	23	23
24	WREN	24	24
25	Ground	25	25
26	TRACK0	26	26
27	Ground	27	27
28	WRPROT	28	28
29	Ground	29	29
30	WDDATA	30	30
31	Ground	31	31
32	HEADSEL	32	32
33	Ground	33	33
34	DSKCHG	34	34

## ACS-9072-00: Multifunction adaptor

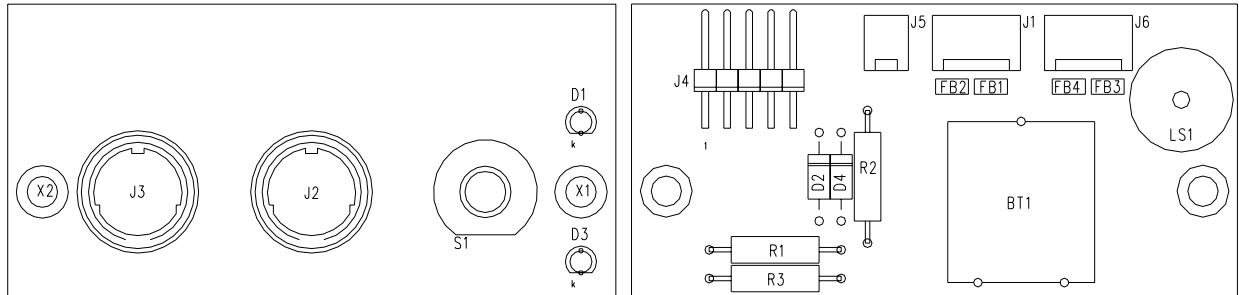


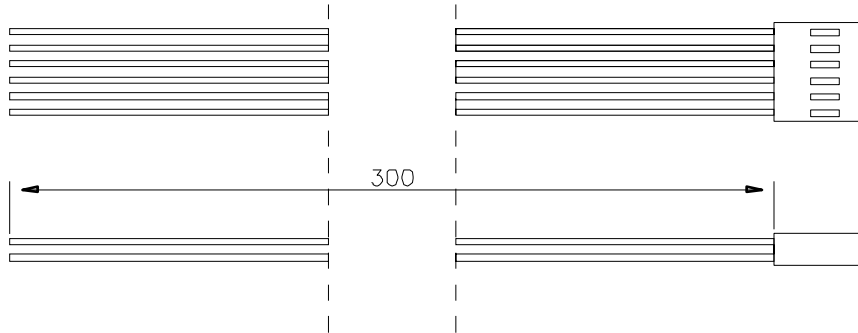
Figure 2 ACS-9072-00 Top / Bottom View

Component Label	Location	Description	Pins	Format	Pitch (mm)
BT1	Bottom	Battery, 3.6V, 60mAh	-	-	-
LS1	Bottom	Speaker,	-	-	-
D1	Top	LED (Green), Power	-	-	-
D3	Top	LED (Yellow), Speaker	-	-	-
S1	Top	Reset Button	-	-	-
J1	Bottom	Extension Keyboard	4	4x1	2.54
J2	Top	Keyboard Input	6	Mini DIN	-
J3	Top	Mouse Input	6	Mini DIN	-
J4	Bottom	Multifunction Output	10	5x2	2.54
J5	Bottom	Not Used with this CPU	2	2x1	2.54
J6	Bottom	Mouse Output	4	4x1	2.54

Connector	Description	Pin #	Signal
J1	Ext. Keyboard Input	1	VCC
		2	KB Clock
		3	Ground
		4	KB Data
		5	KB Clock
		6	NC
J2	Keyboard Input	1	KB Data
		2	NC
		3	Ground
		4	VCC
		5	KB Clock
		6	NC
J3	Mouse Input	1	Mouse Data
		2	NC
		3	Ground
		4	VCC
		5	Mouse Clock
		6	NC

Connector	Description	Pin #	Signal
J4	Multifunction Output	1	SPKR
		2	NC
		3	RES_PB_IN
		4	NC
		5	KBDAT
		6	KBCLK
		7	GND
		8	+5V
		9	BATT_IN
		10	NC
J6	Mouse output	1	VCC
		2	Mouse Clock
		3	Ground
		4	Mouse Data

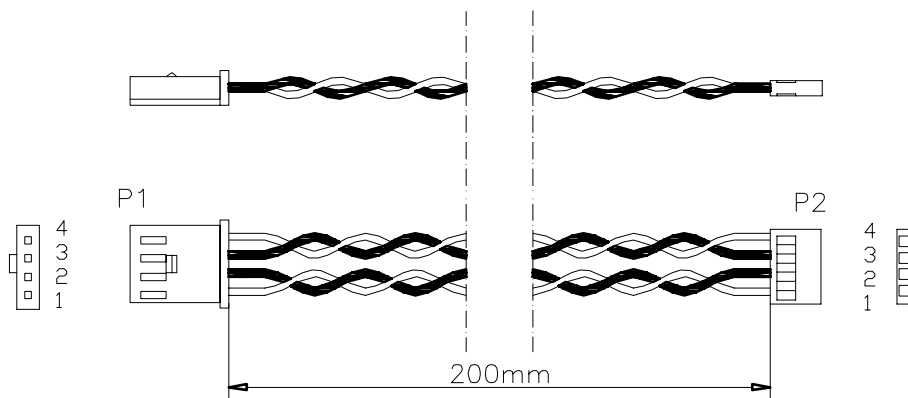
**702000011: Auxiliary power**



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	CPU J16	12	6x2	2.54

Pin #	Signal	Cable Colour
1	GND	Red
2	VDD	Black
3	N.C.	Yellow
4	+12v	Not Connected
5	-5V	Green
6	-12V	Orange
7	GND	Red
8	VDD	Black
9	N.C.	Not Connected
10	PWRBTN#	Black
11	+5VSB	Grey
12	PSON#	Purple

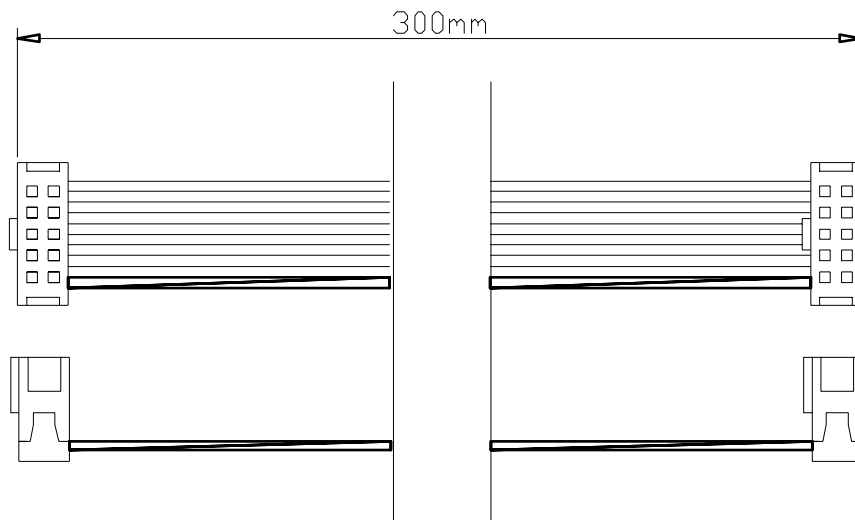
**703000054: CPU Mouse to Multifunction Adaptor**



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1	ACS-9072-00 J6	4	4x1	2.54
P2	CPU J12	4	4x1	2.00

P1 Pin #	Description	P2 Pin #
1	+5V	1
2	MS CLK	2
3	GND	3
4	MS DATA	4

**700000105: CPU to Multifunction adaptor**



Connector #	Name	QTY Pins	Format	Pitch (mm)
P1 & P2	CPU J5 to ACS-9072-00	10	5x2	2.54

P1 Pin #	Description	P2 Pin #
1	Speaker +	1
2	Speaker -	2
3	Ext Reset (Active low)	3
4	NC	4
5	Keyboard Data	5

P1 Pin #	Description	P2 Pin #
6	Keyboard Clock	6
7	Ground	7
8	Keyboard Power (+5V)	8
9	VBAT	9
10	VPP (+12V)	10

**ACS-9071-05: 1x RJ45 Ethernet 10/100MB adaptor**

**Package Contents:**

Qty	Part Number	Description
1	ACS-9071	RJ45 10/100MB Ethernet adaptor
1	7000000091	Cable, CPU J4 to Adaptor

Refer to Application Note "An0059: ACS-9071 User manual" for further details.



---

## Related Documents

For further information please refer to the CPU-1220 User manual.

---

## Where to find us

### **Eurotech S.p.A.**

Via J. Linussio 1  
33020 AMARO (UD)  
ITALY

Phone: +39.0433.485.411  
Fax: +39.0433.485.499

Web: [www.eurotech.it](http://www.eurotech.it)  
E-mail: [sales@eurotech.it](mailto:sales@eurotech.it)