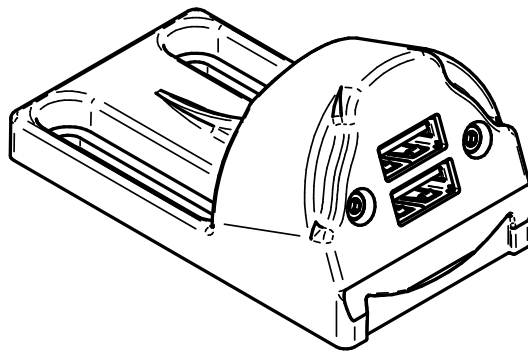


IntegraBus  
PCS-AAH-xxx  
Double USB type-A Charger

Datasheet  
Rev. 02



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## 1. Product Overview

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The PCS-AAH-xxx double USB type-A charger module intended for use in buses/coaches. It allows two connected and charged device in same time.

The charger has two high-power USB type-A port. These ports can be used with most of the popular mobile devices.

The mechanical construction of PCS-AAH charger is perfectly fit for most of seat frame systems used in caches.

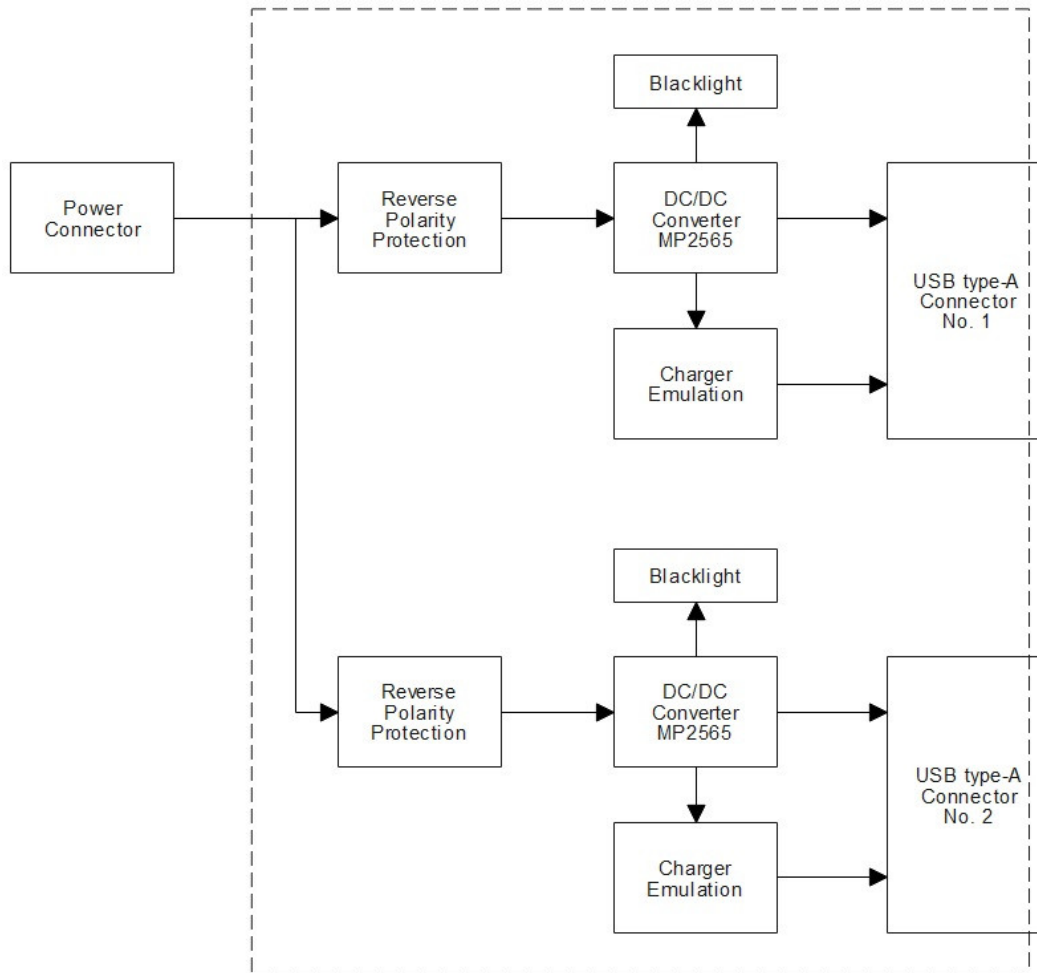
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## 2. Electrical Specification

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		Min.	Norm.	Max	
1.	Supply Voltage	10	24	48	V
2.	Operating Temperature	-40		+85	°C
	<b>USB type-A Port</b>				
3.	Output Voltage	4.75	5	5.25	V
4.	Output Current (@ 5V output voltage)			2.5	A
5.	Efficiency of USB-A port	87			%
6.	Output Power			2 x 12.5	W
7.	Backlight		Blue		

### 3. System Diagram



### 4. Functional Description

- Two mobile devices can be charged simultaneously.
- Standard USB type-A connector outputs,
- USB type-A output can supply 2.5A current maximum at 5V output voltage,
- Easy to install
- Supported mobile devices:
  - o iPod, iPhone, iPad,
  - o Android phones and tabs
- Supported Charge Profiles On USB type-A connector:
  - o Divider 1 DCP, (required to apply 2 V and 2.7 V on D+ Line on the D+ and D- Lines)
  - o Divider 2 DCP, required to apply 2.7 V and 2 V on the D+ and D- Lines

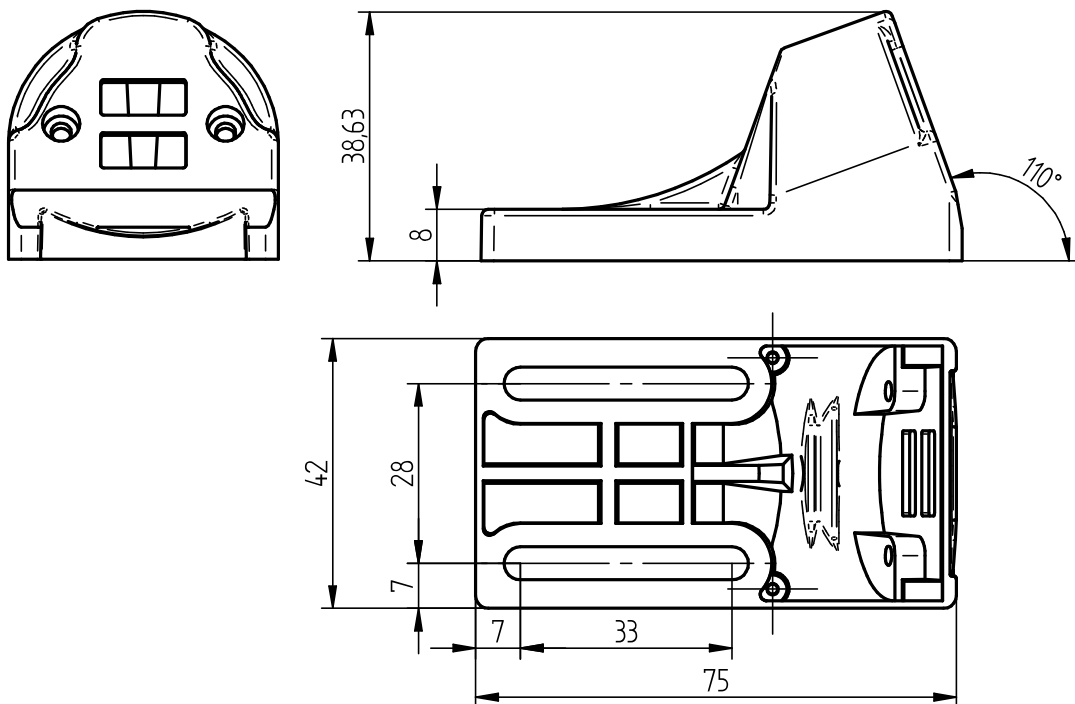
- Divider 3 DCP, required to apply 2.7 V and 2.7 V on the D+ and D- Lines
- BC1.2 DCP, required to short the D+ Line to the D- Line
- Chinese Telecom Standard YD/T 1591-2009 Shorted Mode, required to short the + Line to the D- Line
- 1.2 V on both D+ and D- Lines
- Automotive environment compatible design
- Overcurrent protection, overvoltage protection, thermal protection

## 5. Certifications

ECE R10 certification:	E-24 10R-041054
ECE R118 certification:	Housing weight is less than 15 g, application of R118 is not necessary on housing, Power cable is R118 certified.

## 6. Mechanical Specification

- Rigid plastic housing
- Material: PC ABS
- Easy and stable installation with attached special screw nuts
- Default housing colour: Black, more colours are available upon request



## 7. Installation

The product can be installed between the seats, fixed on the seat-rail by hammerhead nuts.  
 The charger is fixed at the seat row in front of the passenger.

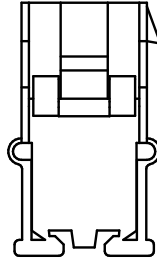
## 8. Ordering Codes

		PCS - AAH -
<b>PCS</b>	Procharge Recessed Mount charger	←
<b>AAH</b>	Double USB type-A charger High power	←
<b>Connector options:</b>		←
<b>T</b>	Tyco JPT connector	
<b>M</b>	Molex Microfit 3.0(TM) connector	
<b>F</b>	FF250 connector	
<b>X</b>	No connector	
<b>Wire length options:</b>		←
<b>03</b>	300mm	
<b>08</b>	800mm	
<b>10</b>	1000mm	
<b>16</b>	1600mm	
<b>Cable protection options:</b>		←
<b>S</b>	Shrinking tube	
<b>N</b>	Plastic protector tube	
<b>X</b>	No additional cable protection	

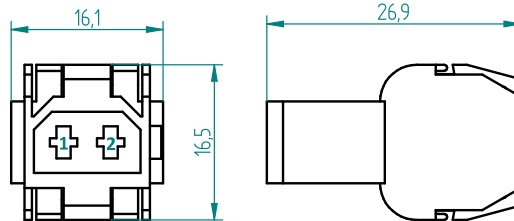
## 9. Connector Pinouts

### Connector option “ - T”:

Housing: Tyco 964586  
 Terminal: Tyco 964273-2

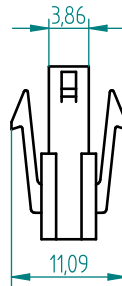


Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input

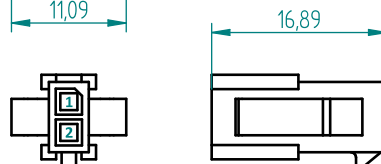


### Connector option “ - M”:

Housing: Molex 430200208  
 Terminal: Molex 43031

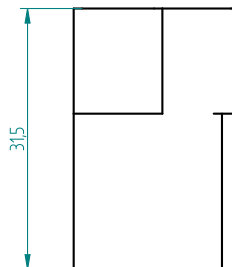


Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input

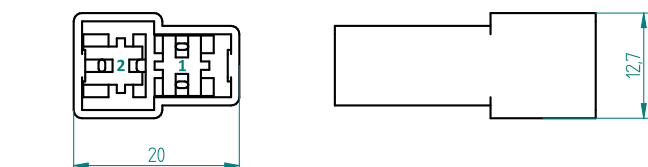


### Connector option “ - F”:

Housing: Tyco 180908  
 Terminal: Tyco 293041



Pin	Wire	Function
1	RED	+12 – 24V Input
2	BLACK	GND Input





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### 10.Document History

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rev	History	Date	Author
R02	Updated drawings Bandaged tape cable option has been removed	2023.09.20.	epapp
R01	First release	2020.12.03.	epapp