



MA Electronics

Lighting & Other Power Supply Product

LED Lighting Power Supply, Power over Ethernet (POE), Output Plug (Jack) Type

~~~~~We Offer Our Product As~~~~~

**\* Low Cost \*High Efficiency \*Flexibility  
\*Competitive Quotation Model \*Preventive Programs**



## MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5, #04-32 Northstar@AMK, Singapore 569880

TEL: (65)-67529437 FAX: (65)-64844741

EMAIL: alan@microtronics-assoc.com



## **MA Electronics Pte Ltd**

7030 Ang Mo Kio Avenue 5, #04-32 Northstar@AMK, Singapore 569880  
TEL: (65)-67529437 FAX: (65)-64844741 EMAIL: alan@microtronics-assoc.com

### **Company profile**

MA Electronics Pte Ltd designs and manufactures switching power adapters, OEM/ODM power supplies and AC adapters, industrial and medical SMPS, battery chargers and power supplies and LED lighting systems for IT companies.

We are ISO 9001:2000 , ISO 14001:2004 and OHSAS 18001-2007-certified for production facilities and subcontractors located in Singapore and China.

### **What we offer our product as :**

#### **Low Cost**

- Leverage high volume procurement
- Reduce inventory costs (local hub...etc.) and handling expenses (transportation.. etc.)

#### **High Efficiency**

- Global logistics
- Efficient material management system
- Well-Trained and productive employees
- Flexible and efficient high-volume manufacturing
- Most advanced manufacturing facilities

#### **Competitive Quotation Model**

- Transparency of material cost, labour cost, overhead..etc.

#### **Flexibility**

- Component can be purchased either by MA Electronics or consigned by the customer
- Two ways feedback to ensure the lowest cost of total ownership.

#### **Preventive Programs**

- Preventive quality control
- Efficient corrective action program

### **Our Partner Policy**

Develop mutually beneficial relationships

Provide our partners with products that meet their requirements of:

- Qualit
- Features
- Price
- Performance
- Fast Time-to-market

# CONTENTS

## Power Supply for LED Lighting

|                           |     |
|---------------------------|-----|
| <u>4-12W Series</u> ----- | P.1 |
| <u>13W Series</u> -----   | P.2 |
| <u>9-14W Series</u> ----- | P.3 |
| <u>4-14W Series</u> ----- | P.4 |

|                          |      |
|--------------------------|------|
| <b>POE Adapter</b> ----- | P.5  |
|                          | ~P.6 |

|                               |      |
|-------------------------------|------|
| <b>Output Plug List</b> ----- | P.7  |
|                               | ~P.8 |

## **MA Electronics Pte Ltd**

7030 Ang Mo Kio Avenue 5, #04-32 Northstar@AMK, Singapore 569880

**TEL:** (65)-67529437 **FAX:** (65)-64844741 **EMAIL :** alan@microtronics-assoc.com

# Power Supply for LED Lighting

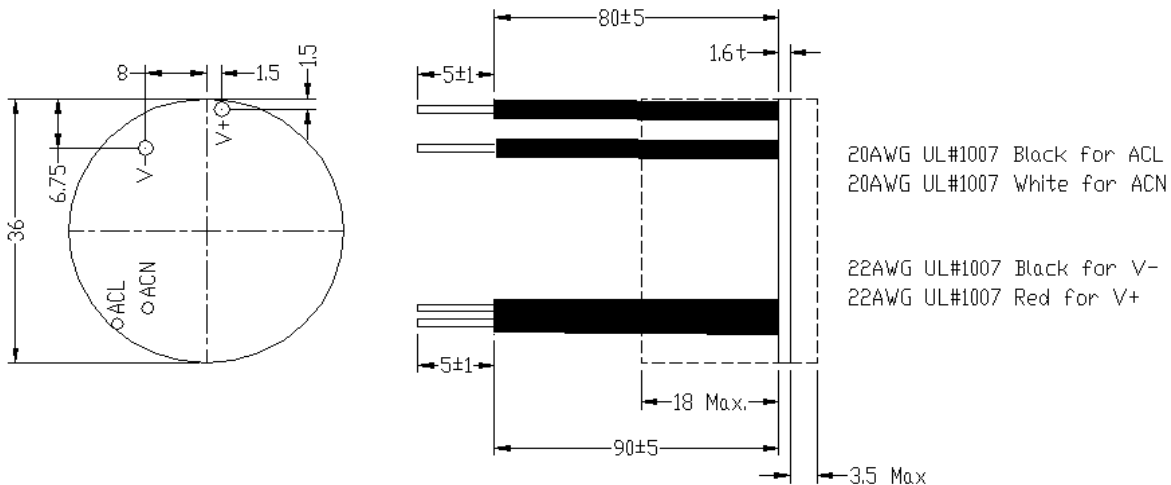
## 4~12Watts Series

### FEATURES

- Diameter 36mm Type
- Universal Input 90~264Vac
- Low Cost (Non-Isolated, Non-PFC)
- Constant Voltage & Constant Current



| Item                     | Model | LD-H01AC0240160     | LD-H01AC0480160 | LD-H01AC1000120 |
|--------------------------|-------|---------------------|-----------------|-----------------|
| Output Voltage           |       | 8~16V               | 8~16V           | 6~12V           |
| Output Rating            |       | 240mA               | 480mA           | 1000mA          |
| Current Limit Tolerance  |       | ±15%                | ±15%            | ±15%            |
| Input Voltage            |       | 90~264VAC           |                 |                 |
| Input Frequency          |       | 47~63Hz             |                 |                 |
| Input Current (max.)     |       | 0.2A                | 0.25A           | 0.6A            |
| Inrush Current (max.)    |       | 40A                 |                 |                 |
| Line Regulation          |       | ±3%                 |                 |                 |
| Load Regulation          |       | ±10%                |                 |                 |
| Ripple & Noise (max.)    |       | 500mVp-p            |                 |                 |
| Efficiency (typ.)        |       | 75%                 | 69%             | 78%             |
| Temperature Coefficient  |       | ±0.1%/°C            |                 |                 |
| Over-Voltage Protection  |       | Auto Recovery       |                 |                 |
| Short-circuit Protection |       | Auto Recovery       |                 |                 |
| Operating Temperature    |       | 0~50°C              |                 |                 |
| Storage Temperature      |       | -25~85°C            |                 |                 |
| Safety                   |       | ---                 |                 |                 |
| EMC (EMI/EMS)            |       | EMI Filter Optional |                 |                 |



### MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

# Power Supply for LED Lighting

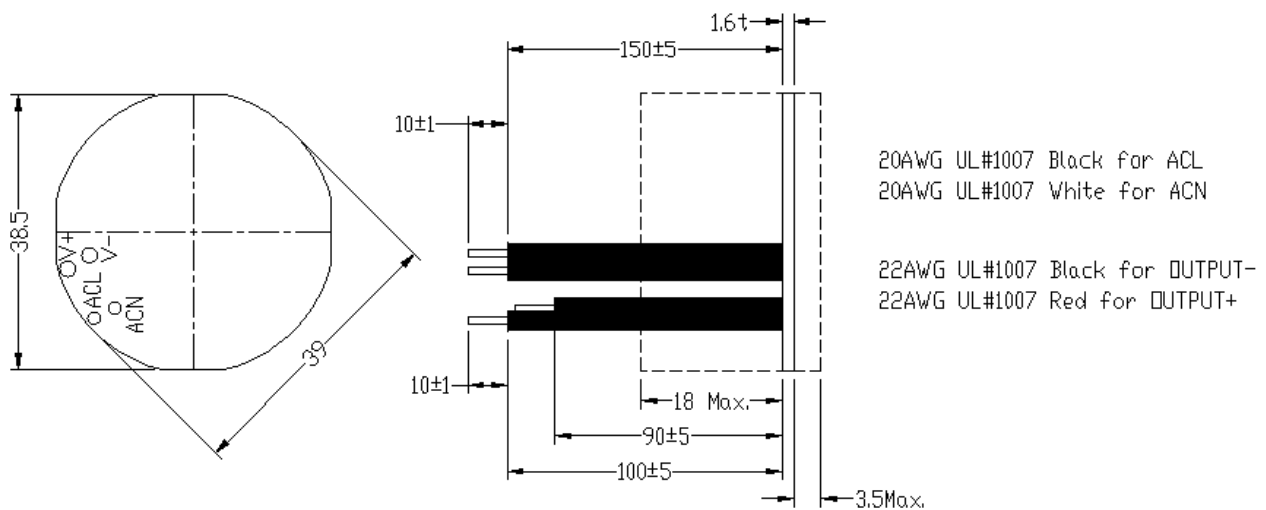
## 13Watts Series

### FEATURES

- Diameter 39mm Type
- Universal Input 90~264Vac
- Low Cost (Non-PFC)
- Constant Voltage & Constant Current



| Model                    | LD-H02AC1100120     |
|--------------------------|---------------------|
| Item                     |                     |
| Output Voltage           | 6~12V               |
| Output Rating            | 1100mA              |
| Current Limit Tolerance  | ±5%                 |
| Input Voltage            | 90~264VAC           |
| Input Frequency          | 47~63Hz             |
| Input Current (max.)     | 0.35A               |
| Inrush Current (max.)    | 40A                 |
| Line Regulation          | ±3%                 |
| Load Regulation          | ±10%                |
| Ripple & Noise (max.)    | 500mVp-p            |
| Efficiency (typ.)        | 78%                 |
| Temperature Coefficient  | ±0.1%/°C            |
| Over-Voltage Protection  | Auto Recovery       |
| Short-circuit Protection | Auto Recovery       |
| Operating Temperature    | 0~50°C              |
| Storage Temperature      | -25~85°C            |
| Safety                   | ---                 |
| EMC (EMI/EMS)            | EMI Filter Optional |



### MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

# Power Supply for LED Lighting

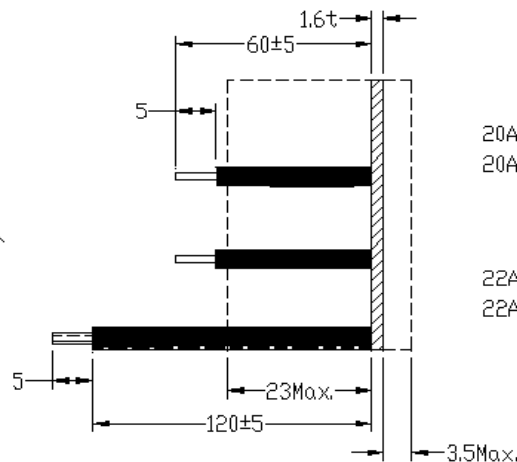
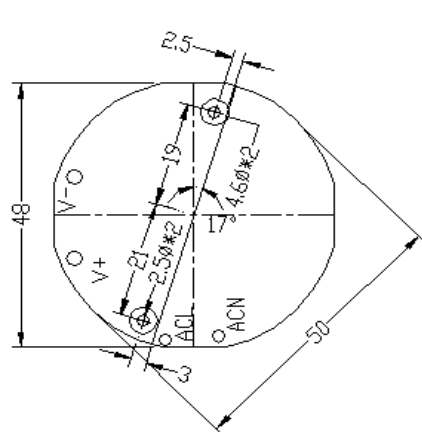
## 9~14Watts Series

### FEATURES

- Diameter 50mm Type
- Built-in Passive PFC (\*)
- Universal Input 90~264Vac
- Isolated
- Constant Voltage & Constant Current



| Model                    | LD-H03AC0540160    | LD-H03AC0600180(*)      | LD-H03AC0900120(*) |
|--------------------------|--------------------|-------------------------|--------------------|
| Item                     |                    |                         |                    |
| Output Voltage           | 8~16V              | 9~18V                   | 6~12V              |
| Output Rating            | 540mA              | 600mA                   | 900mA              |
| Current Limit Tolerance  | ±5%                | ±5%                     | ±5%                |
| Input Voltage            | 90~264VAC          |                         |                    |
| Input Frequency          | 47~63Hz            |                         |                    |
| Input Current (max.)     | 0.25A              |                         |                    |
| Inrush Current (max.)    | 40A                |                         |                    |
| Power Factor (min.)      | Non-PFC            | 0.9/115VAC ; 0.8/230VAC |                    |
| Line Regulation          | ±3%                |                         |                    |
| Load Regulation          | ±10%               |                         |                    |
| Ripple & Noise (max.)    | 500mVp-p           |                         |                    |
| Efficiency (typ.)        | 68%                | 78%                     |                    |
| Temperature Coefficient  | ±0.1%/°C           |                         |                    |
| Over-Voltage Protection  | Auto Recovery      |                         |                    |
| Short-circuit Protection | Auto Recovery      |                         |                    |
| Operating Temperature    | 0~50°C             |                         |                    |
| Storage Temperature      | -25~85°C           |                         |                    |
| Safety                   | ---                |                         |                    |
| EMC (EMI/EMS)            | Design refer to CE |                         |                    |



### MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

# Power Supply for LED Lighting

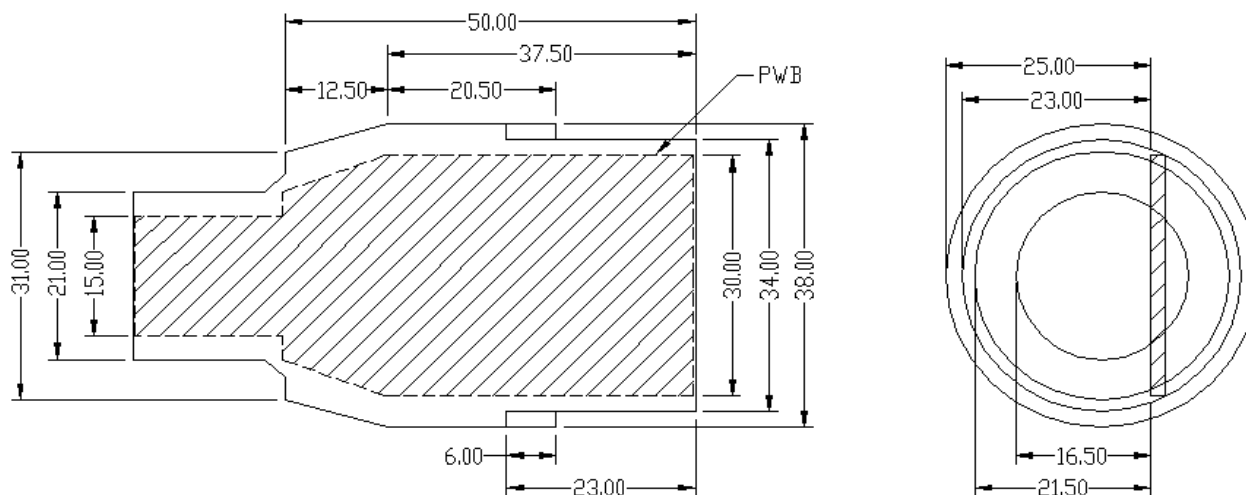
## 4~14Watts Series

### FEATURES

- Suitable for Cap Base E26
- Built-in Passive PFC
- Universal Input 90~264Vac
- Isolated
- Constant Voltage & Constant Current



| Model                    | LD-H04AC0350120         | LD-H04AC0700120 | LD-H04AC1000120 | LD-H04AC1200120 |
|--------------------------|-------------------------|-----------------|-----------------|-----------------|
| Item                     |                         |                 |                 |                 |
| Output Voltage           | 6~12V                   | 6~12V           | 6~12V           | 6~12V           |
| Output Rating            | 350mA                   | 700mA           | 1000mA          | 1200mA          |
| Current Limit Tolerance  | ±5%                     | ±5%             | ±5%             | ±5%             |
| Input Voltage            | 90~264VAC               |                 |                 |                 |
| Input Frequency          | 47~63Hz                 |                 |                 |                 |
| Input Current (max.)     | 0.3A                    |                 |                 |                 |
| Inrush Current (max.)    | 40A                     |                 |                 |                 |
| Power Factor (min.)      | 0.9/115VAC ; 0.8/230VAC |                 |                 |                 |
| Line Regulation          | ±3%                     |                 |                 |                 |
| Load Regulation          | ±10%                    |                 |                 |                 |
| Ripple & Noise (max.)    | 500mVp-p                |                 |                 |                 |
| Efficiency (typ.)        | 75%                     |                 | 78%             |                 |
| Temperature Coefficient  | ±0.1%/°C                |                 |                 |                 |
| Over-Voltage Protection  | Auto Recovery           |                 |                 |                 |
| Short-circuit Protection | Auto Recovery           |                 |                 |                 |
| Operating Temperature    | 0~50°C                  |                 |                 |                 |
| Storage Temperature      | -25~85°C                |                 |                 |                 |
| Safety                   | ---                     |                 |                 |                 |
| EMC (EMI/EMS)            | Design refer to CE      |                 |                 |                 |



### MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

# Switching Adapter for Power over Ethernet Driver

## Switching Adapter for PSE ( Power Source Equipment )



| Model No. | Output Rating | Dimension (L*W*H) | Features                                                                                                                                             | Safety | Picture                                                                               |
|-----------|---------------|-------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------------------------------------------------------------------------------------|
| A1-36S48  | 48V/0.8A      | 87*51*33          | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Compact Size</li> </ul>                                                                     | ---    |    |
| A2-36SG48 | 48V/0.8A      | 100*56*33         | <ul style="list-style-type: none"> <li>●CEC IV</li> </ul>                                                                                            | ---    |    |
| A2-60S48  | 48V/1.2A      | 100*56*33         | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Compact Size</li> </ul>                                                                     | ---    |    |
| A3-50S48  | 48V/1.0A      | 121*60*33         | <ul style="list-style-type: none"> <li>●CEC IV</li> </ul>                                                                                            | ---    |  |
| A3-75S48  | 48V/1.6A      | 121*60*33         | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Compact Size</li> <li>●Active PFC</li> </ul>                                                | ---    |  |
| A7-90S48  | 48V/2.0A      | 135*65*38         | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Active PFC</li> </ul>                                                                       | ---    |  |
| A8L-90S48 | 48V/2.0A      | 121*60*36         | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Compact Size</li> <li>●Active PFC</li> <li>●Special Thermal Solution Without Fan</li> </ul> | ---    |  |

### MA Electronics Pte Ltd



7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com





# Switching Adapter for Power over Ethernet Driver

|             |          |             |                                                                                                                               |     |                                                                                     |
|-------------|----------|-------------|-------------------------------------------------------------------------------------------------------------------------------|-----|-------------------------------------------------------------------------------------|
| A8-120SC48  | 48V/2.4A | 160*65*43.5 | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Active PFC</li> <li>●Special Thermal Solution Without Fan</li> </ul> | --- |  |
| A8H-150SC48 | 48V/3.2A | 160*65*48.5 | <ul style="list-style-type: none"> <li>●CEC IV</li> <li>●Active PFC</li> <li>●Special Thermal Solution Without Fan</li> </ul> | --- |  |

## Switching Adapter for Injector ( base unit )

| Model No.  | Output Rating | Dimension (L*W*H) | Features                                                    | Safety                                         | Picture                                                                               |
|------------|---------------|-------------------|-------------------------------------------------------------|------------------------------------------------|---------------------------------------------------------------------------------------|
| SA06L48    | 48V/0.4A      | 93*49*35          | <ul style="list-style-type: none"> <li>●Standard</li> </ul> | UL, CUL, TUV, CB, BSMI, PSE, CCC, DOIR, C-TICK |    |
| SA06-20S48 | 48V/0.4A      | 93*49*35          | <ul style="list-style-type: none"> <li>●CEC IV</li> </ul>   | UL, CUL, CSA, CUS, PSE                         |  |

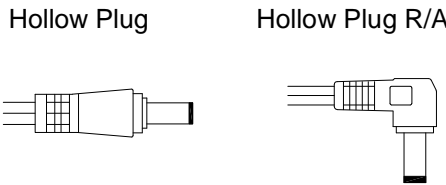
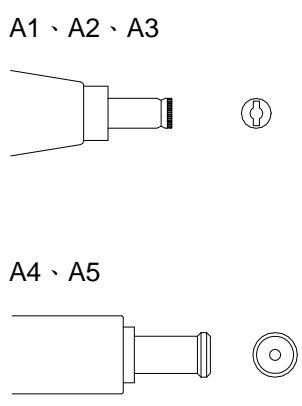
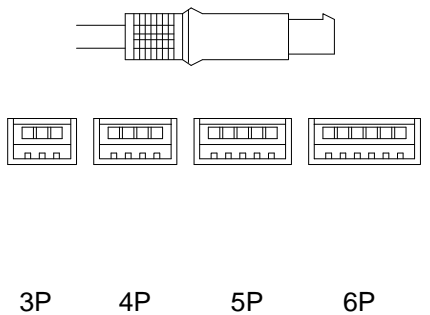
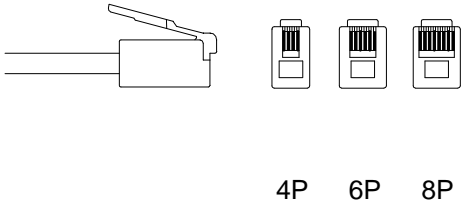
## Switching Adapter with Injector ( Non-Comply with IEEE802.3af )

| Model No. | Output Rating | Dimension (L*W*H) | Features                                                                                                                                                                                                                                              | Safety        | Picture                                                                               |
|-----------|---------------|-------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------|
| A5-10S24  | 24V/0.4A      | 119*50*35         | <ul style="list-style-type: none"> <li>●RJ45 Input/Output Connector</li> <li>●Input/Output Common Ground</li> <li>●Power/Data Mixer</li> <li>●Ethernet Switches expand to Wireless Access Point</li> </ul>                                            | ---           |  |
| A5-15S15  | 15V/1.0A      | 119*50*35         |                                                                                                                                                                                                                                                       | ---           |                                                                                       |
| A5-20S48  | 48V/0.4A      | 119*50*35         |                                                                                                                                                                                                                                                       | BSMI, LVD, CE |                                                                                       |
| A5-S20S18 | 18V/1.1A      | 119*50*35         | <ul style="list-style-type: none"> <li>●RJ45 Input/Output Connector</li> <li>●Input/Output Common Ground</li> <li>●Power/Data Mixer</li> <li>●Ethernet Switches expand to Wireless Access Point</li> <li>●Secondary Surge 4KV for optional</li> </ul> | CE            |  |
| A5-S20S24 | 24V/0.83A     | 119*50*35         |                                                                                                                                                                                                                                                       | ---           |                                                                                       |
| A5-S20S48 | 48V/0.4A      | 119*50*35         |                                                                                                                                                                                                                                                       | ---           |                                                                                       |

### MA Electronics Pte Ltd

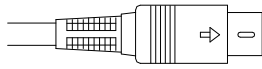






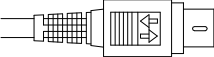










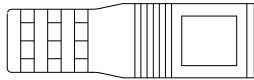

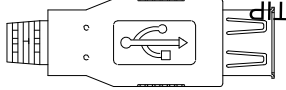

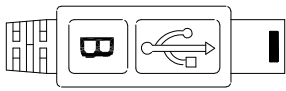


7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

# Output Plug List

| Plug No.              | Plug Name       | I.D.    | O.D. | Length | Plug Outline                                                                         |                                                                                      |
|-----------------------|-----------------|---------|------|--------|--------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|
| <b>Standard Plugs</b> |                 |         |      |        |                                                                                      |                                                                                      |
| 1                     | Hollow Plug     | 1.35    | 3.5  | ---    |    |                                                                                      |
| 2                     |                 | 2.1     | 5.5  | < 10.5 |                                                                                      |                                                                                      |
| 3                     |                 | 2.1     | 5.5  | ≥ 10.5 |                                                                                      |                                                                                      |
| 4                     | Hollow Plug R/A | 1.35    | 3.5  | ---    |                                                                                      |                                                                                      |
| 5                     |                 | 2.1     | 5.5  | < 10.5 |                                                                                      |                                                                                      |
| 6                     |                 | 2.1     | 5.5  | ≥ 10.5 |                                                                                      |                                                                                      |
| 7                     | Hollow Plug     | 2.5     | 5.5  | ---    |                                                                                      |                                                                                      |
| 8                     | Hollow Plug R/A | 2.5     | 5.5  | ---    |                                                                                      |                                                                                      |
| A1                    | EIAJ-1          | 0.7     | 2.35 | ---    |   |                                                                                      |
| A2                    | EIAJ-2          | 1.7     | 4.0  | ---    |                                                                                      |                                                                                      |
| A3                    | EIAJ-3          | 1.7     | 4.75 | ---    |                                                                                      |                                                                                      |
| A4                    | EIAJ-4          | 1.0/3.3 | 5.5  | ---    |                                                                                      |                                                                                      |
| A5                    | EIAJ-5          | 1.4/4.3 | 6.5  | ---    |                                                                                      |                                                                                      |
| A1R                   | EIAJ-1 R/A      | 0.7     | 2.35 | ---    |                                                                                      |                                                                                      |
| A2R                   | EIAJ-2 R/A      | 1.7     | 4.0  | ---    |                                                                                      |                                                                                      |
| A3R                   | EIAJ-3 R/A      | 1.7     | 4.75 | ---    |                                                                                      |                                                                                      |
| A4R                   | EIAJ-4 R/A      | 1.0/3.3 | 5.5  | ---    |                                                                                      |                                                                                      |
| A5R                   | EIAJ-5 R/A      | 1.4/4.3 | 6.5  | ---    |                                                                                      |                                                                                      |
| B1                    | MOLEX 3.96mm    | 3 Pin   |      |        |                                                                                      |  |
| B2                    |                 | 4 Pin   |      |        |                                                                                      |                                                                                      |
| B3                    |                 | 5 Pin   |      |        |                                                                                      |                                                                                      |
| B4                    |                 | 6 Pin   |      |        |                                                                                      |                                                                                      |
| C1                    | RJ Series       | 4 Pin   |      |        |  |                                                                                      |
| C2                    |                 | 6 Pin   |      |        |                                                                                      |                                                                                      |
| C3                    |                 | 8 Pin   |      |        |                                                                                      |                                                                                      |

**MA Electronics Pte Ltd**

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com

|                      |                                |         |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
|----------------------|--------------------------------|---------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| D1                   | Mini-DIN<br>(male)             | 3 Pin   |                                                                                       | 8P                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| D2                   |                                | 4 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| D3                   |                                | 5 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| D4                   |                                | 6 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| D5                   |                                | 7 Pin   |                                                                                                                                                                                                                                                            |                |
| D6                   |                                | 8 Pin   |                                                                                                                                                                                                                                                            | 3P 4P 5P 6P 7P                                                                                                                                                                                                                                                                                                                                                                                                                             |
| E1                   | Power Mini-DIN<br>(male)       | 3 Pin   |    |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| E2                   |                                | 4 Pin   |                                                                                                                                                                                                                                                            | 3P 4P                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| F1                   | DIN<br>(male)                  | 3 Pin   |    | 8P 7P                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| F2                   |                                | 4 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| F3                   |                                | 5 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| F4                   |                                | 5 Pin-1 |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| F5                   |                                | 6 Pin   |                                                                                                                                                                                                                                                            |      |
| F6                   |                                | 7 Pin   |                                                                                                                                                                                                                                                            | 3P 4P 5P 5P-1 6P                                                                                                                                                                                                                                                                                                                                                                                                                           |
| F7                   |                                | 8 Pin   |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Special Plugs</b> |                                |         |                                                                                                                                                                                                                                                            |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| T                    | Interchangeable                | 2 Pin   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| USB                  | USB-Standard-A<br>(Receptacle) | 4 Pin   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| MUSB                 | USB-Mini-B                     | 5 Pin   |                                                                                   |                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| TINNED               | Strip & Tinned                 | ---     |                                                                                                                                                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                            |

◆ Other Special plugs are available, please ask for details.

### MA Electronics Pte Ltd

7030 Ang Mo Kio Avenue 5,  
 #04-32 Northstar@AMK, Singapore 569880  
 TEL: (65)-67529437 FAX: (65)-64844741  
 EMAIL : alan@microtronics-assoc.com