

**Row Power 35**  
**4ms Company**  
Eurorack Power Module  
PCB version 2.1  
User Manual 1.0 – July 20, 2020



The **Row Power 35** is a power supply module for the Eurorack modular system. It requires a barrel-style power brick (15V – 20V DC) and supplies power to modules via flying bus cables, direction connection, and/or bus boards using the two standard 16-pin Eurorack headers on the back. For custom power systems, the **Row Power 35** has a set of easily soldered holes for using large gauge wire or MTA156 connectors to connect to distribution bus boards.

Multiple **Row Power** modules can be powered from a single power brick by daisy-chaining with an inexpensive barrel cable. The **Row Power 35** can also be daisy-chained to 4ms Company's Pod enclosures.

**Maximum and recommended power output:**

- +12V: 1.4A maximum
- -12V: 1.25A maximum
- +5V: 1.0A maximum

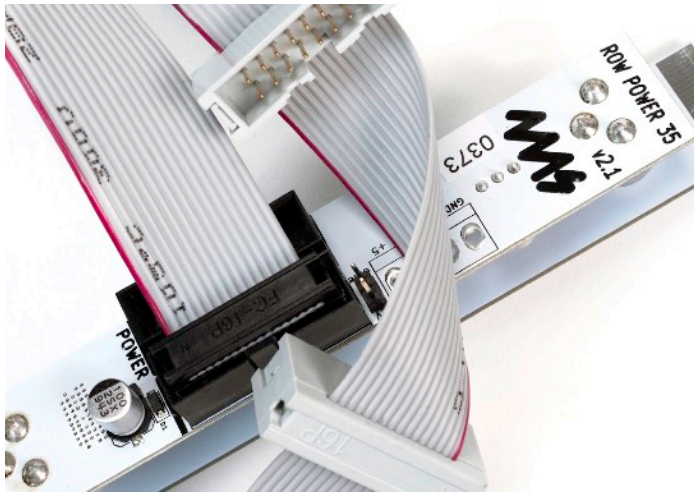
**Power Brick:**

- Available wherever **Row Power 45** modules are sold.
- You may use your own power brick if it meets the following:
  - 15VDC to 20VDC
  - Minimum 30W output power
  - Positive center 2.1mm barrel plug
  - Low-noise output

**Features:**

- Two identical barrel power jacks at top and bottom for daisy-chaining (either jack can be used for power input or chaining)
- On/off switch
- LEDs indicate power rails are functioning
- 25.6mm (1.01") deep with power cable attached
- 22.0mm (0.87") with no power cable (when using solder points)
- 4HP

## Installation



The **Row Power 35** can be used with flying bus cables, multi-power cables, bus boards and other passive distribution systems. There are two male pin headers on the back of the **Row Power 35**. You can use just one of the two headers, or both.

### Flying Bus Cables

A flying bus cable has a female connector on one end. Simply plug the female connector into the male pins on the back of the **Row Power 35**. The notch on the male pin connector will prevent you from plugging a standard cable in backwards, but it's always good practice to verify the red stripe on the cable is orientated towards the bottom of the module.

If you have more than one flying bus cable, you can safely daisy-chain them together. You also can daisy-chain a bus board or bus stick to the end of the flying bus cable, or vice-versa. To insure the lowest noise in a Eurorack system, always use the shortest power cables available and the least number of connectors.



### Direct Connection

You can directly connect any Eurorack module to the **Row Power 35**. Simply plug the 16-pin cable to one of the **Row Power 35**'s 16-pin headers. Verify that the red stripe is facing down on both ends of the cable.

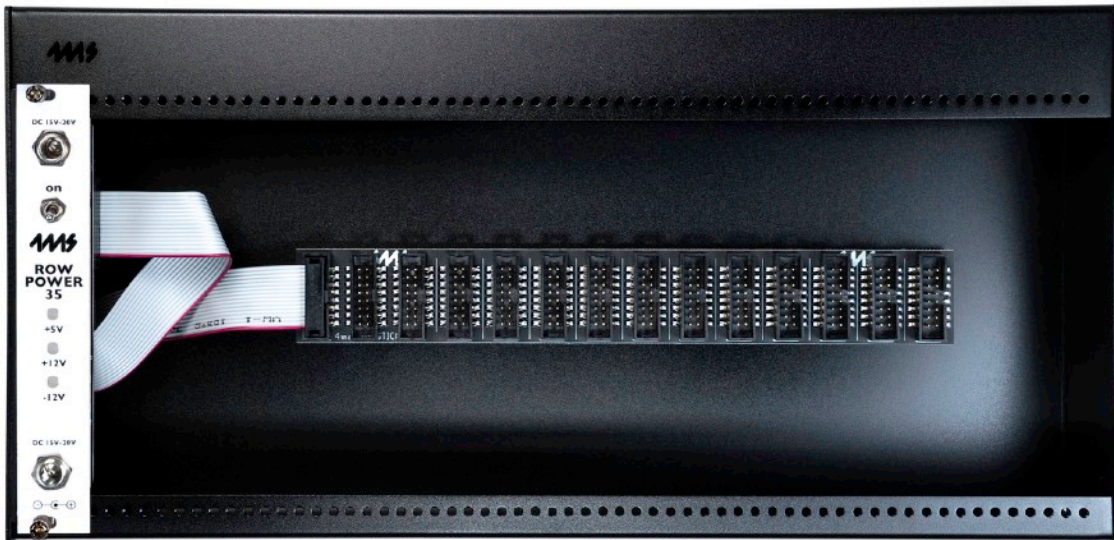
### Multi-Power Connectors

These type of cables are similar to flying bus cables, but have multiple female connectors instead of male connectors. They will only be a good solution if you intend to power three or less modules which all have the same type of power header (10-pin or 16-pin). Simply plug the 16-pin connector on the end of the multi-power connector to the **Row Power 35** and then plug the female connectors directly to your modules. The multi-power connectors sold by 4ms can connect to up to three modules and

they cannot be daisy-chained since they have only female connectors. For powering more than three modules, or for powering some modules with 10-pin headers and some modules with 16-pin headers, we recommend using flying bus cables.

### Bus Stick (or other passive distribution boards)

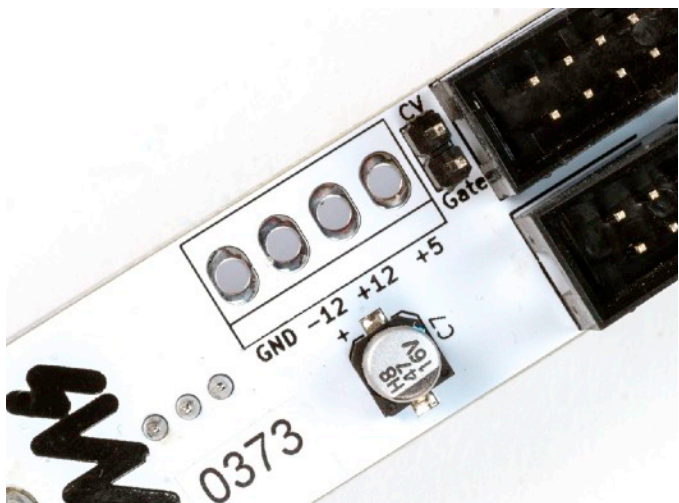
Any passive power distribution board can be used with the **Row Power 35**. If the bus board connects to the power supply with a standard 16-pin Eurorack power cable, then simply use one of the male pin power connectors on the back of the **Row Power 35** to connect to the bus board. Verify the red stripe is pointed down on both ends of the cable.



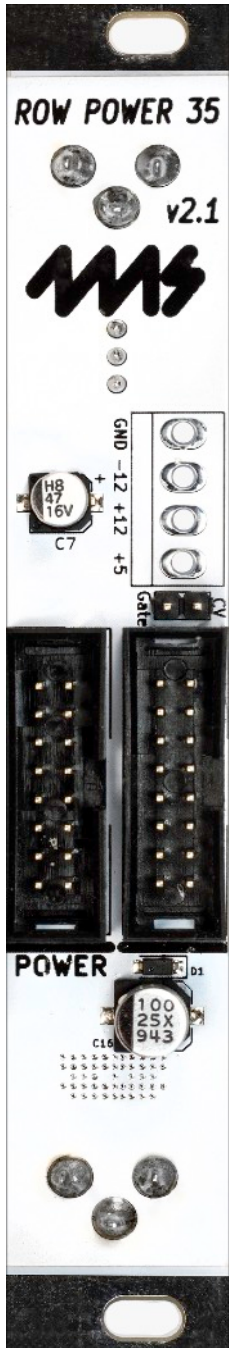
An example using a Bus Stick installed in a Pod64X is shown above. The Bus Stick can be secured to the case using the adhesive pads on the back. Make sure the surface is clean and apply pressure for 20 seconds. It's safe to daisy-chain a flying bus cable or another Bus Stick, but to insure the lowest noise system, use as few connectors as possible.

### Solder Connectors

The **Row Power 35** has a set of four holes for +12V, -12V, +5V, and ground. The holes are 0.082" (2.1mm) in diameter and are spaced 0.156" (3.96mm). They fit the Molex MTA156 connector (example: Molex PN: 5273-04A or 09652048). They also will fit 14 AWG wire.



These connectors are provided for advanced users with sufficient knowledge of soldering and power systems. They can be used with a custom or specialized low-noise bus board system. While 4ms Company will warranty and support the internal circuitry of the **Row Power 35**, we do not offer support for 3rd party or DIY bus boards or distribution systems.



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