



Part number:

DSP-21<sup>®</sup> 

The **DSP-21** controller is intended as a **RoHS** compliant replacement for the **SuprMotrV**.

<b>DC servo controller:</b>	Single axis miniaturized controller for laboratory and industrial applications.
<b>Control loops:</b>	<b>P-term, I-term, D-term</b>
<b>Parameters control:</b>	Position, velocity, acceleration, torque. Adjustable “on the fly”.
<b>Computer Interface:</b>	<b>Standard USB.</b> Also analog control from DAQ card.
<b>Resolution:</b>	Down to 0.004µm depending on the encoder used.
<b>Networkable:</b>	Up to 8 boards can be controlled from one PC with one Power Supply
<b>Inputs and Outputs:</b>	Digital and analog inputs and outputs for conversions and data acquisition.
<b>Power requirements:</b>	Max. <b>24V</b> DC at max. <b>2A</b> .
<b>Available options:</b>	Joystick, Analog drive output, <b>Digital display</b> see next page.
<b>Software:</b>	Terminal. LabView Drivers and DEMO software.
<b>Programming:</b>	Intuitive 2 letter mnemonic. User defined <b>MACRO commands</b> included.
<b>Recommended actuator:</b>	SuprMike <sup>®</sup> , LDC-25, LDC-50 etc...
<b>Dimensions:</b>	OEM size 2"x 3".

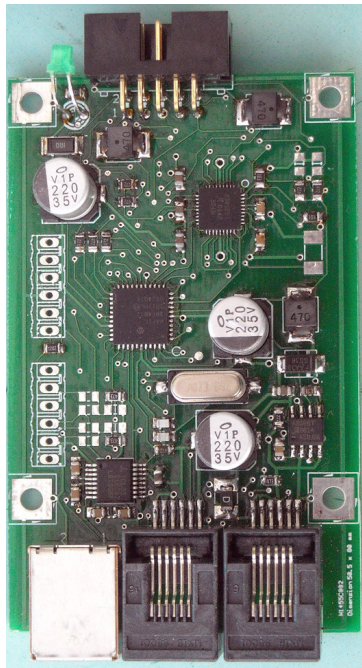
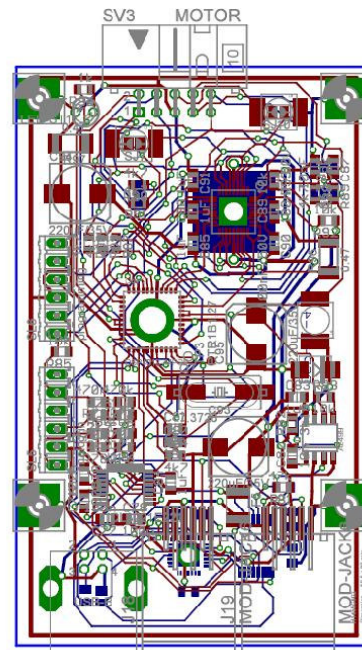


Photo (OEM version)



Layout

The pin-out is pin to pin compatible with **Maxon** and **Faulhaber** motors and listed below:

<b>Pin 1</b>	<b>Motor +</b>
<b>Pin 2</b>	+5V to encoder
<b>Pin 3</b>	Encoder Ch. A
<b>Pin 4</b>	Encoder Ch. B
<b>Pin 5</b>	Ground.
<b>Pin 6</b>	<b>Motor -</b>
<b>Pin 7</b>	Reference switch (optional)
<b>Pin 8</b>	Positive limit switch (optional)
<b>Pin 9</b>	Negative limit switch (optional)
<b>Pin 10</b>	Ground.



Using an external Digital Display console with Joystick, part number **DSP-21JS**, the user can command 2pcs **DSP-21**.

Only one power Supply is needed and no additional accessories or software are required.

The user can switch between PC control or Joystick + Digital Display control.

The position can be read directly in micrometers.



**DSP-21JS + DSP-21 + SuprMike**