

**GENERAL INFORMATION**

The GLENN 100 W Inductive Power and Data coupler is a highly integrated system for non-contact transmission of power and data across a small air gap. When mounted directly across for one another, power is transferred and the data is coupled. Power, up to 100 Watt, transferred at a high rate of efficiency.

The GLENN 100 W can transfer 8 channels of A/D conversion and 8 channels of D/A conversion, resulting in an overall functionality of transporting 8 channels in both directions simultaneously over the air gap.

Each communications module is identical, having full-duplex serial communication link suitable for transporting the bi-directional channel data in digital form to and from an external computer and/or data processor.

The GLENN 100 W has a simplified configuration with limited housing and an exposed PCB. Customization of the housing and method of fixation for OEM customers should be discussed with our engineers.

The GLENN 100 can power up to 8 piezo patches (+/- 200 V DC) and simultaneously measure 8 piezo sensors.

The Remote module is designed for operation in a vacuum and rotation to 1500 rpm. For other possible configurations of the GLENN 100 W system, please contact MESA.

**APPLICATIONS**

- Piezo sensors and actuators
- Strain Gauges
- Rotating Test Stands
- Transfer analog data



<b>GLENN 100 W TECHNICAL DATA</b>	
<b>Electrical</b>	
Power supply	24VDC ( $\pm 5\%$ ), I = 10 A
Remote power	+/- 200 VDC ( $\pm 10\%$ ), 100W (10 Watt each 8-channels)
Remote load	0...100% (controlled dynamically by feedback)
Data interface	<ul style="list-style-type: none"> <li>• 8 Channels of analog-to-digital conversion, each with:               <ul style="list-style-type: none"> <li>24-bit resolution</li> <li>48 kHz sampling rate</li> <li>100 dB or better dynamic range</li> <li>-98 dB THD+N</li> <li>10 Hz to 20kHz frequency response</li> <li>+/- 5% maximum gain error</li> <li>+/- 100 ppm/<math>^{\circ}</math>C gain drift</li> </ul> </li> <li>• Each analog input channel will have a high-gain instrumentation pre-amplifier with resistor-settable gain of up to 60 dB on.</li> <li>• 8 Channels of digital-to-analog conversion, each with:               <ul style="list-style-type: none"> <li>24-bit resolution</li> <li>48 kHz sampling rate</li> <li>100 dB or better dynamic range</li> <li>-98 dB THD+N</li> <li>10 Hz to 20kHz frequency response</li> <li>100 ppm/<math>^{\circ}</math>C gain drift</li> </ul> </li> <li>• Differential audio line drivers will be used to drive each analog channel output.</li> <li>• Bi-directional, full-duplex serial digital channels in a format yet to be determined will be provided on each board.</li> </ul>
Environment	Suitable for vacuum environment
Power on/off	Remotely controlled to switch on/off the power transmission
<b>Mechanics parts (see drawings)</b>	
Remote housing	$\varnothing$ 4.751" x 6.904" (custom end mounting)
Base	Flexible layout PCB
Connections	For Analog input at the 'REMOTE' and for both Analog Input and Output at the 'BASE' module. Molex 2mm IGRID 24-pin Housing P/N 501646-2400
Rotational speed	0 to 1500 rpm (higher available)

<b>FEATURES</b>	<b>BENIFITS</b>
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| <ul style="list-style-type: none"> <li>• 24 V DC power supply</li> <li>• Power transmission up to 100 Watt</li> <li>• 24 bit resolution</li> <li>• 48 kHz sampling rate</li> <li>• Digital interface</li> <li>• Rotation to 1500 rpm</li> </ul> | <ul style="list-style-type: none"> <li>• Standard power</li> <li>• Regulated Remote power</li> <li>• High frequency response</li> <li>• 40 K bits data per channel</li> <li>• Operates in a vacuum environment</li> <li>• Maintenance free operation</li> </ul> |
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<b>YOUR LOCAL REPRESENTATIVE</b>
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**MESA Systems Co.**

Phone: 508-359-5322

fax: 508-318-6537

[support@mesasystemsco.com](mailto:support@mesasystemsco.com)

[www.mesasystemsco.com](http://www.mesasystemsco.com)

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