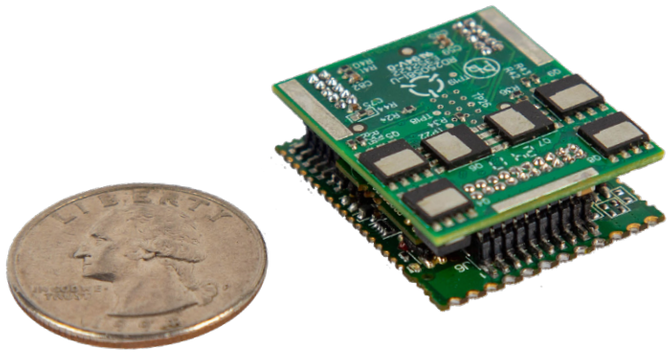
REDLER
Technologies
The Heart of Power and Motion

Micro Rayon

High performance miniature motor controller driver



Typical Applications:

- SMT Connection
- Very small Robots
- Can be used on any Connection board

- 10A Driver
- Great with small applications
- Sinusoidal, flux oriented control and trapezoid drive
- Hall, Digital SSI. Incremental encoder feedback
- PID closed loop modes: Position, speed, current and stepper
- Esafe – Eeprom file system management
- 10A continues current. (10 sec 20A over drive)
- Communication: CAN BUS (1Mbit- CANopen) RS422-485 and RS232
- Analog and / or digital commands
- Master Slave Mode
- Firmware upgrade via RS232
- MMI – Load/Read parameters and high speed live graph monitor
- Protections: Temperature, voltage, CPU, encoders, hall, motor stuck more
- Encoder to Hall on the fly switch-over
- Comprehensive Error massages
- 3 bits network address
- 4 digital input. 2 digital outputs
- Reliable: rigid construction high current 92A 100V Power MOSFETs
- Hardware short motor winding protection
- 2 encoders input with automatically switchover
- Operating temperature -40°c to 71°c. (extended to –55˚c 85°c by demand)
- SMT Technology
- OEM version available

Specifications:

Function	Parameter	Remarks
CPU and Memory		
CORE	TI-TMS320F-28035	32 bits DSP
Flash	128 Kbytes	
RAM	20 Kbytes	
CORE Speed	60Mhz	
Motor Interface		
DC Half Bridge Drivers	6 100V@92A	FOC
Bridge Drivers	DRV8301DCAR	1A turn on 1.2A turn off
Motor Current	12A Continues	
Hall angle inputs	60˚c	Open collector/Drain
Output hall devices power	5VDC	@200mA
Encoder Interface-A	SSI or SPI	SDI SDO SCLK
Encoder Interface-B	Digital RS422	CLK A CLK B Index
Motor Current Sense measurement	**2 Channels 2 Channels**	**0-3V 12bits resolution**
Adjustable Motor Current limiter	2 Channels	One Over load Point
General Purpose Interface		
Digital Input / Output	4 Inputs 2 Output Channels	Optically isolated
Analog input (analog command)	1 Channel	±10V / ±5V /0-10V
Communication Interface		
CAN BUS	Single CANopen	CAN 2.0B 1Mbit/Sec
UART	1 Channels	RS232 or RS422 comm.
Power Supply		
Operating Voltage	8-48V	
Control Voltage	8V to 48V	
Quiescent Current	45mA @24V	Cores @ 60Mhz
Environment		
Operating Temperature	-40˚c +71˚c	Optional –55˚c to +85˚c
Storage Temperature	-65˚c - +150˚c	
I/O Connection		
Power Input and Phase output	SMT Layout	
Power Input and Phase output-OEM	SMT Layout	
Signals Input and Digital I/O	SMT Layout	
Dimension	32X27X9 mm	

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