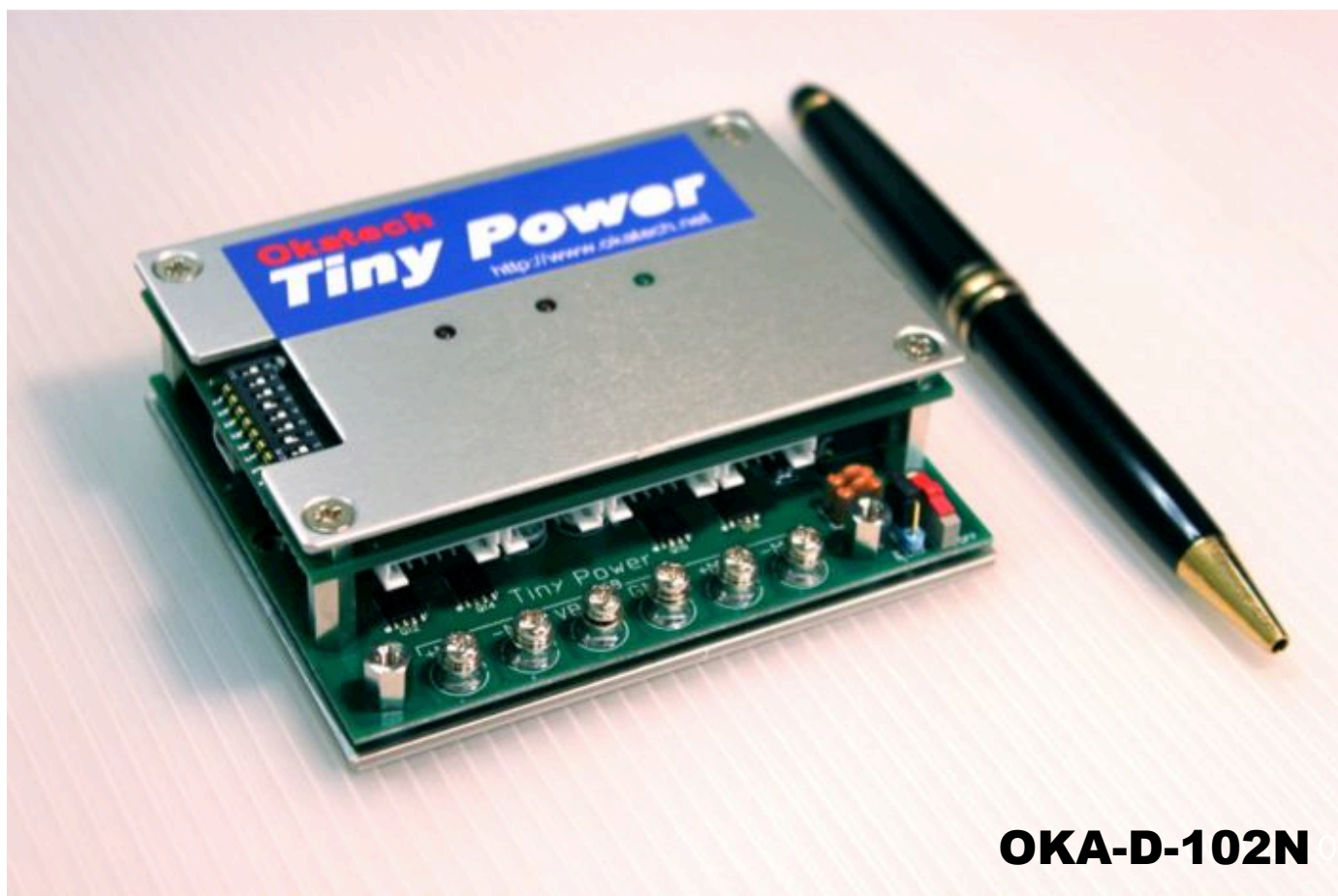


TinyPower

Intelligent Motor Controller

Okatech



Hardware Specifications

Outer Dimensions; 80 x 96 x 27mm

Weight; 180g

Applicable Motors; 6V~24V, DC Motor x 2,
Maximum Current 16A (When forced air cooled)

Input Voltage; 6V~24V

External Communication; Sereal (RS232,USB)

Encoder; A/B phase (5V power system)

Input/Output; Analog Input 5ch, 0~5V, 10bit

Digital Input/Output 4ch, Input/Output switchable

Control Cycle; PWM Output 20kHz

Three Main Functions of TinyPower

1. Motor Control Driver Function to control each motor by issuing reference rate of rotation.
2. Motor Driver Function to directory conrol motors from a host computer.
3. Simultaneous Control of two Motors by giving reference forward speed and turn around speed.

Analog input and Digital input/Output functions are prepared in addition to the above.

Function can be enhanced by connecting sensor units*, joy-stick unit* and other unit through extension communication port. (*to be re;eased)

Functions

1. PWM Output directly controls the duty ratio of the output to each
2. Rotation rate control ; Control rotation rate of each motor (PD control) parameter for pulse ratio. PD gain Gear ratio are confugurabe
3. Speed Control; Controls forward/turn around speed for each of two motors
Trapezoid profile following control with PD control law P/D gain, acceleration/diceleration, tread width, wheel radius are configurable
4. Position Servo control; (to be available)
5. Encoder Measurement; Outputs number of pulses during sampling time, integrated pulse value
6. Analog Measurement; Measures analog value (eg. sensor) connected to the analog input pin Unipolar 5V/10 bit
7. Degital Input/Output; Inputs and Outputs data from DIO pin of the contrller

Manufacturing;

Okatech

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