

# DIVA Automation Ltd.

## Innovation in Motion

**SuprChip V<sup>©</sup>**

**Stand-alone  
Microcomputer**

Original release, March 30, 2003

### Description

The **SuprChip V<sup>©</sup>** is a high performance microcontroller with all required support elements for autonomous, stand-alone operation.

### Features

- **72** I/O lines--many multi-purpose.
- Multi-purpose I/O includes:
  - **8** analog inputs
  - **2** analog outputs
  - **6** external interrupts
  - **2** multi-mode counter/timers
  - All programmable direction
- External memory/data bus
- **50+** commands
- Monitor/debugger
- **48 KB** ROM
- **1 KB** RAM
- Multi-drop **RS-232** interface
- **2 KB** EEPROM storage
- Memory expansion available
- **Low cost**
- **Easy to use**
- Small size: **1.6" x 2.3"**
- Low power: **< 10 mA @ 5V**
- Lower power **sleep mode**
- **2 million** operations/sec.
- Real-time clock
- True **multi-tasking** operation
- User-define **macro commands**
- **Auto-execute** on power-up
- Embedded command interpreter
- Embedded development system
- Virtual-instrument control panel
- Floating-point **Basic** interpreter
- **No PC** required for operation

### Applications

The SuprChip family has been used as the control computer for many product developments, including:

- Multi-axis **motion control**.
- Programmable power supplies.
- Web **tension controller**.
- RS-232/485 Protocol converter.
- Keyboard/display **MMI**
- Remote data collection, analysis and alarm.
- Electro-forming process controller
- Bench test instrument.
- High voltage power supply.
- Fiber optic splicer.
- Ultra high resolution encoder (36 million/rev).
- **1024-axis** carpet tufter
- Automatic paper cutter
- Automatic test system
- Cable tester

Many other applications exist.

### Standard Interfaces

Drivers are either built-in or available for these and other types of peripherals.

- Joysticks,
- LEDs, LCDs
- Printers
- Thumbwheels,
- Keyboards
- DC motors
- Stepper motors
- Valves
- Opto-isolators
- Relays

### Free Software

Two high-level languages are built in: **DiMAC** and **EHBasic**. **DiMAC** is our proprietary high speed language for automation and motion control. The **EHBasic** interpreter has full floating point math capability.

Free software source code is available in **VisualBASIC** for virtual instrument screens.

Drivers are available for use with **LabView** at no extra cost.

### Ease of Use

All signals and connections required for operation are contained in a single IDC-type header. Power and RS-232 connections are also available in additional dedicated connectors.

Actual size

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