

**ANALOG  
PRODUCTS**

**MC34920  
FACT SHEET**



POWER ICs  
H-BRIDGE

**MC34920 2.8 Ω (TYP) QUAD H-BRIDGE MOTOR DRIVER**

The 34920 is a multifunctional analog ASIC used in printer and scanner applications.

The 34920 ASIC integrates two switching voltage regulator circuits, four full H-bridge drivers, and a reset circuit in a single IC. Two DC/DC converters provide voltages from an unregulated input of 21 V to 42 V DC. Two of the bridges can be selected as either a bi-directional DC motor drives with pulse width modulation (PWM) control and peak currents of 1.2 A or a single bipolar step motor driver with average current levels of 183 mA and 550 mA per phase. In step mode, both drivers are capable of being operated in the quarter step mode.

**APPLICATIONS**

- Printers
- Scanners

**FEATURES**

- Individual thermal limit protection
- User Selectable motors:
  - 4 DC-motors (1.2 A/motor)
  - 2 Step motors (W1-2 phase control)
  - 2 DC-motors and 1 Step motor
- 2 Buck regulators (switching @ 200 kHz)
- $V_{PR}$  10 – 15 V DC (ext. program; approx. 1.0 A)
- Low voltage detection Reset ( $V_{CC}$  and  $V_{B+}$ )
- Additional devices available for comparison in Analog Selector Guide SG1002/D

Performance	Typical Values
Outputs	4 ch
Output Current	1.2 A (2 DC motors)
Motor Operating Voltage	21 – 42 V
Logic Operating Voltage	3.3 – 5.0 V
Operating Temp	$-0^{\circ}\text{C} \leq T_A \leq 70^{\circ}\text{C}$

Protection	Detect	Shut Down	Limiting	Auto Retry
Under Voltage	•	•		
Over Current	•	• (reg)	• (M/D)	
Over Temperature	•	•		•

**QUESTIONS**

- Are you looking for a single chip printer power solution?
- Do you need to implement multi-axis electro mechanical systems?
- Do you need to reduce system costs or have limited PC board space?

Ordering Information	Package	Ship Method	Motorola Part Number
	44 PLCC	Rail	MC34920FC
		Reel	MC34920FCR2



MOTOROLA and the Stylized M Logo are registered in the U.S. Patent & Trademark Office. All other product or service names are the property of their respective owners.  
© Motorola, Inc. 2002

MC34920FS/D  
Rev. 0