

**Single Phase Full Wave Direct PWM Motor Driver AM4963/AM4963R****Description**

The AM4963/AM4963R is a full wave driver IC with direct PWM control function and thermal resistor control function. It is used for single phase motor and is capable of speed control by PWM pulse and thermal resistor at the same time.

The AM4963/AM4963R is available in SSOP-16 and HTSSOP-14 packages.

**Features**

- The Motor Speed is Controlled by PWM Pulse Directly and Thermal Resistor at the Same Time
- Low Corner Temperature (30°C) Adjustable
- High Corner Temperature (38°C) Adjustable
- Full Speed when Thermal Resistor Shorten
- Built-in Triangle Wave Circuit without Extra Oscillation Capacitor
- Built-in Minimal Speed Setup Circuit
- Alpha Slope Adjustable
- Rotation Speed Indicator (FG)
- Rotation/lock State Indicator (RD)
- Built-in Temperature Control Circuit
- Built-in Thermal Shutdown Circuit
- Lock Protection and Auto-restart

**Applications**

- CPU Cooler Fan in PC
- Brushless DC Motor Driver

**Parametric Table**

$V_{CC}=12V$

Supply Voltage (V)	3.5 to 18
Supply Current (mA) $V_{CT}=L$	15
Output Saturation (V)	1.2
Output Current (Max) (A)	1.0
CT Charge Current ( $\mu A$ )	2.3
CT Discharge Current ( $\mu A$ )	0.23
CT Charge and Discharge Ratio	10
FG Output Low Level Voltage (V)	0.2
RD Output Low Level Voltage (V)	0.2

**Benefits**

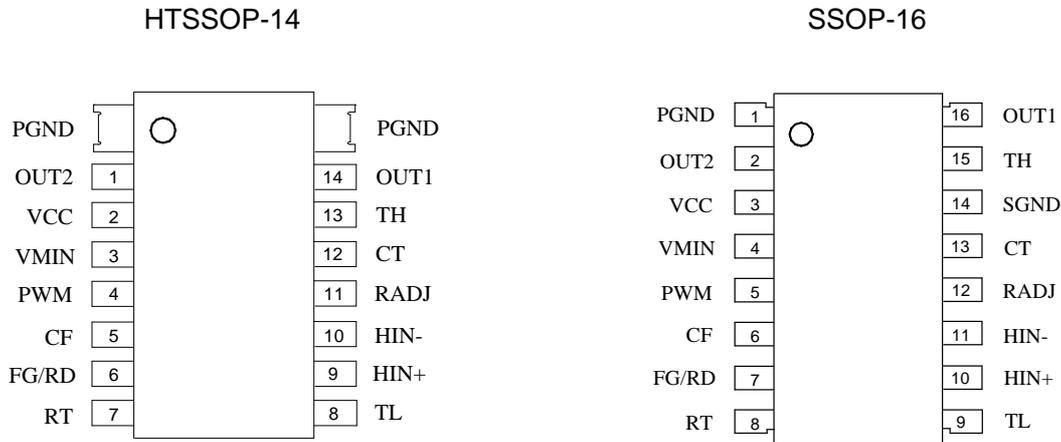
- Speed Control by Both Thermistor and Direct PWM
- Minimum External Components
- Temperature High/Low Adjustable
- Low Startup Voltage: 3.5V
- Cost-effect Solution

**Additional Available Materials**

- Samples
- Data Sheet
- Reliability Report
- ESD Report

## Single Phase Full Wave Direct PWM Motor Driver AM4963/AM4963R

### Pin Configuration



### Ordering Information Example

Package	Temperature Range	Part Number	Marking ID	Packing Type
HTSSOP-14	-30 to 90°C	AM4963GH-G1	AM4963GH-G1	Tube
		AM4963GHTR-G1	AM4963GH-G1	Tape & Reel
		AM4963RGH-G1	AM4963RGH-G1	Tube
		AM4963RGHTR-G1	AM4963RGH-G1	Tape & Reel
SSOP-16		AM4963GS-G1	AM4963GS-G1	Tube
		AM4963GSTR-G1	AM4963GS-G1	Tape & Reel
		AM4963RGS-G1	AM4963RGS-G1	Tube
		AM4963RGSTR-G1	AM4963RGS-G1	Tape & Reel

Detailed information please refer to the relevant datasheet.

#### Sales Office:

##### Shanghai

No. 1600, Zi Xing Road, Shanghai ZiZhu Science-based Industrial Park, 200241, China  
 Tel : 86-21-24162266  
 Fax : 86-21-24162277

##### Taiwan

4F, 298-1 Rui Guang Road, Nei-Hu District, Taipei, Taiwan  
 Tel : 886-2-2656-2808  
 Fax : 886-2-2656-2806

##### USA

30920 Huntwood Ave. Hayward, CA 94544, USA  
 Tel : +1-510-324-2988  
 Fax : +1-510-324-2788

##### Shenzhen

Unit A Room 1203, Skyworth Bldg., Gaoxin Ave.1.S., Nanshan District, Shenzhen, China  
 Tel : 86-755-8826 7951  
 Fax : 86-755-8826 7865