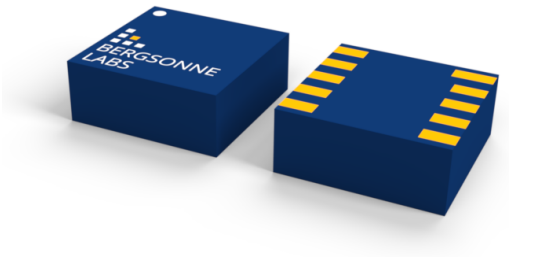
Drive.H

haptic ERM/LRA driver

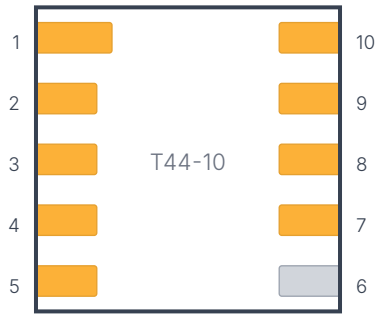
The Drive.H tile is designed for driving linear-resonant actuators (LRAs) or eccentric rotating-mass motors (ERMs) using the Texas Instruments DRV2605 IC. Haptic signals can be generated either from an internal effects library, streamed in real time over I2C, or input as a high-speed pulse-width modulation (PWM) signal. Additionally, an optional hardware trigger can be used to play back pre-configured effects. Separate logic and motor supply connections allows for digital interfacing with logic down to 1.8V.



Overview

Revision	a
Package	T44-10
Power	1.8–5V (system), 2.5–5.5V (drive)
Component	DRV2605
Interfaces	I2C

Pad Assignments



(top view)

PAD	TYPE	FUNCTION	NOTE
1	power	GND	
2	digital	TRIG	
3	digital	EN	an internal pull-up resistor enables the output by default; connect to GND to disable
4	digital	I2C.CLK	if using a non-Core processor, ensure adequate external pull-up resistance
5	digital	I2C.DAT	if using a non-Core processor, ensure adequate external pull-up resistance
7	drive	OUT+	
8	drive	OUT-	
9	power	V_MOTOR	2.5-5.5V supply for the motor driver
10	power	V+	1.8-5.0V

Interfaces

I2C

I2C

Mode	slave
Max Clock	400kHz
Address	0x5A (default)
Format	7-bit addr, 8-bit data

FUNCTION	REQ	PAD(S)
I2C.CLK	Yes	4
I2C.DAT	Yes	5