

10. Single ESC - 12 S

10.1. About

The TBS LUCID12S ESC is a force to be reckoned with. Built for high voltage and high power applications that demand high reliability and power at your fingertips.

Featuring an 8-layer high current density board with excellent heat resistance, the ESC is built to withstand the harshest punishment of everyday flying while delivering excellent payload capabilities. With built-in TVS, voltage spikes are no longer a concern. The ESC achieves excellent power-to-weight density without needing heavy heat sinks by focusing on thermal dissipation from the ground up.

A close collaboration with AM32 allowed us to squeeze the last bit of performance without breaking the bank.

10.2. Specification

Firmware:	AlkaMotors32 (AM32)
Motor Outputs:	1
Size:	58 x 29 mm
Weight:	19 g
Mounting:	/
Input Voltage:	3 - 12 S
Current:	50 A (continuous) 70 A (60 s) 90 A (40 s) 120 A (30 s)
Protocols:	PWM CRSF DSHOT 300/600 with ESC telemetry KISS ESC Telemetry

10.3. Firmware

Firmware	Target	Min. FW Version
AlkaMotors32	AM32_TBS_12S_F415	2.18
	AM32_TBS_12S_G071	2.20



Note:

ESC's produced late 2025-12 or later require the *G071* firmware.



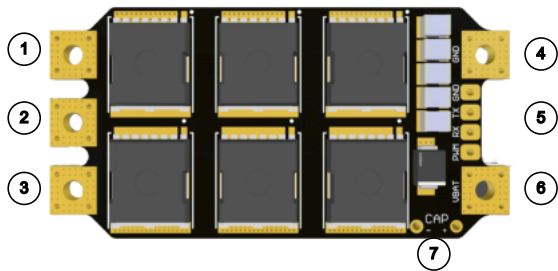


Check the print on the main chip of the ESC for the correct chip type (e. g. *stm32g071*)

10.4. Pinout



Important:
The Signal ground must always be connected. The ESC can be damaged if left open.



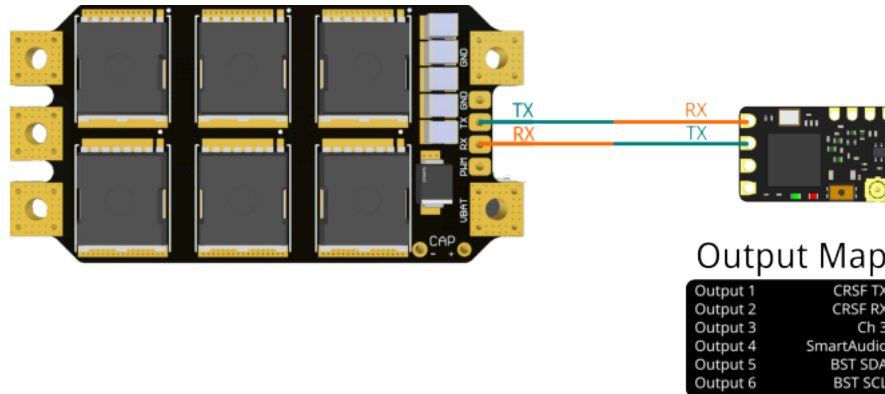
1..3 – Motor	4 – Battery In - GND	5 – RC Input
6 – Battery In	7 – External Capacitor Pads	



10.5. Peripheral Connections

10.5.1. Receiver Connection - CRSF

CRSF Connection



CRSF enables extra features over other protocols:

- Configuration on the fly (by TBS AGENT through the connected CROSSFIRE/ TRACER connection)
- Telemetry Sensors
- CRSF as RC input signal (channel selectable by CRSF menu)

10.5.2. Receiver Connection - PWM

When using an FC, its recommended to use CRSE, KISS Telemetry or DShot

PWM Connection

