

# Lap Trigger HF 58 Receiver

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- ▶ High reliability, even in bad weather conditions
- ▶ 16 independent channels
- ▶ Main and sub trigger

This lap trigger system HF 58 consists of a high frequency transmitter station and a receiver which is installed in the car.

The system allows an exact lap time measurement. Section time measurement for comparison of different car setups is also available if several transmitters are used.

## Application

Antenna gain	6 dBi
Angle azimuth	40°
Angle elevation	90°
Sensitivity	-60 dBm
Packet size	32 Bit
Packet repetition frequency	0,5 ms
Working frequency band	5,795 to 5,815 GHz
Frequency channels	16
Output driver (switching to GND)	10 mA
Output signal main trigger (Puls)	20 ms active low

Output signal sub trigger (Puls)	40 ms active low
Max. vibration	Vibration Profile 1

## Functions

The transmitter sends coded signals across the race track via the directional antenna. The receiver at the race car permanently checks the team code and the signal parameters. If the trigger condition is detected, the receiver generates the appropriate output signal (main/sub trigger).

The trigger point is located at broadside of the transmitter antenna. After detecting the trigger point and releasing the trigger signal the receiver is passive for a period of 0.5 seconds avoiding a multiple trigger signal. When a trigger is detected the output pin goes low for a certain time:

- 20 msec low at main trigger
- 40 msec low at sub trigger

Standard output configuration: Low side switch with internal pull-up (R = 2.5 kOhm to +5 VDC). External pull-up to VBat allowed

**Technical Specifications**

**Mechanical Data**

Size	86 x 20 x 69 mm
Weight	127 g
Protection Classification	IP67 to DIN 40050, Section 9, Issue 2008
Ambient temperature	-20 to 85°C

**Electrical Data**

Power consumption	1.3 W
Supply voltage	6 to 18 V

**Connectors and Wires**

Connector	ASX0-02-03PN
Pin 1	Power supply +

Pin 2	GND
Pin 3	Trigger out

**Installation Notes**

The white antenna radome must be turned to the transmitter side (see Dimensions) and must not be mounted behind metallic covers or carbon fiber filled elements.

Positioning of the receiver inside the car: The connector side has to be positioned in direction to the front or back of the car as shown in drawing No. 2 (see Dimensions). It must not be positioned with the connector pointing up- or downwards.

Green or blue indicator flashes when it detects a trigger condition.

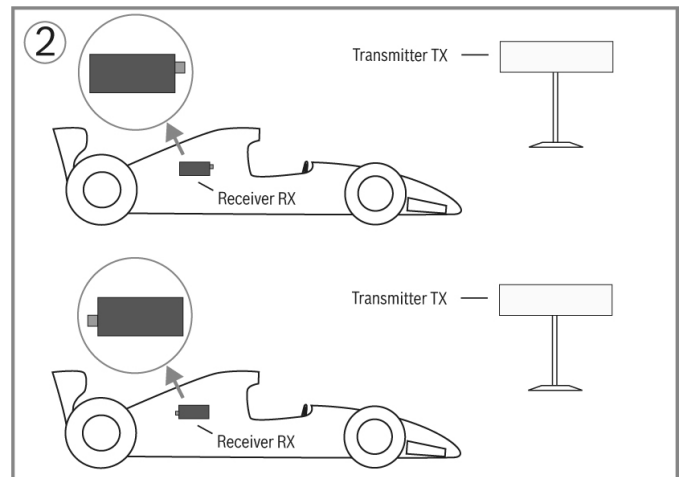
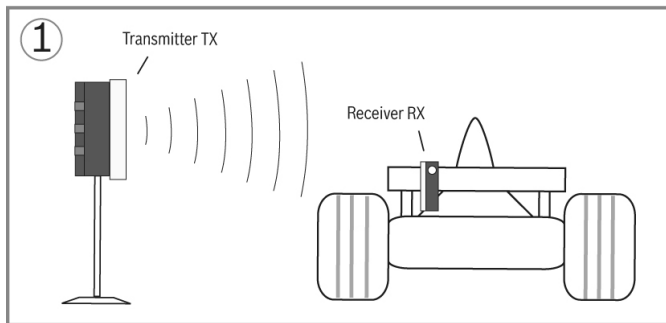
**Ordering Information**

**Lap Trigger HF 58 Receiver**  
Order number **F 02U V00 946-03**

**Dimensions**

**Positioning of the receiver inside the car**

- 1 The white antenna radome must be turned to the transmitter side.
- 2 The connector has to be positioned in direction of the front or back of the car. It must not be positioned with the connector pointing up- or downwards.



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