

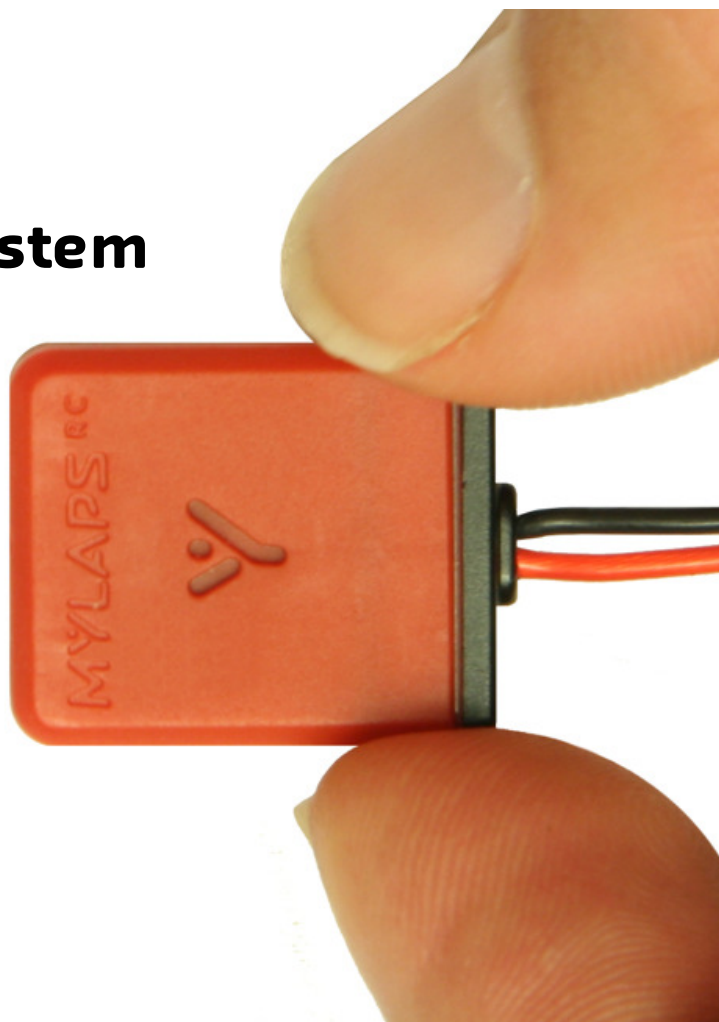


Whitepaper MYLAPS RC4 Timing System

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Introduction

The new RC timing platform: RC 4

MYLAPS (by AMB i.t. and ChampionChip) has delivered reliable and accurate timing solutions for RC for over 25 years and will continue doing so for years to come. We aim to optimize the sports experience for all participants and address the need in the market for clubs and tracks to display their results and store more data online for performance analysis.

That is why MYLAPS introduces a new timing platform for the RC world, called RC4. The current RC2 standard is running out of numbers. With the RC4 standard, MYLAPS invests in a new RC platform which can handle more numbers and offers more features and a higher quality. It comes with a new and improved RC transponder that offers extra practice functionality in the new RC system for clubs, tracks and racers.

All existing MYLAPS transponders will be detected by the new RC4 Decoders. The new RC4 Decoder will become the platform from which MYLAPS will further develop RC features for the future. RC3 Decoders can be turned into RC4 Decoders by means of a firmware update.

Interested? Contact your regional sales office for more information.

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MYLAPS RC4 timing system components

MYLAPS RC4 Hybrid Transponder

Simpler

- Very small
- Light-weight
- Easy to switch between cars thanks to a separate holder

More efficient

- Wide operating voltage range (2.8 – 16 volts)
- 1-4 cell LiPo compatible

More reliable

- Premium wire (gasoline and nitro resistant (PTFE))
- CE and FCC (pending) approved

Better performance

- More hits

Can be used everywhere

- Works on RC2, RC3 and RC4 Decoders

Ready for the future

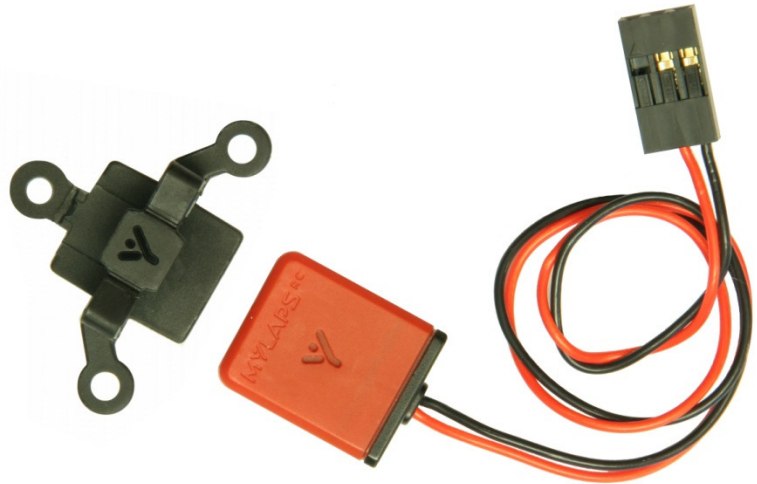
- Supports the new RC4 communication protocol

More data and better performance with the RC4 communication protocol

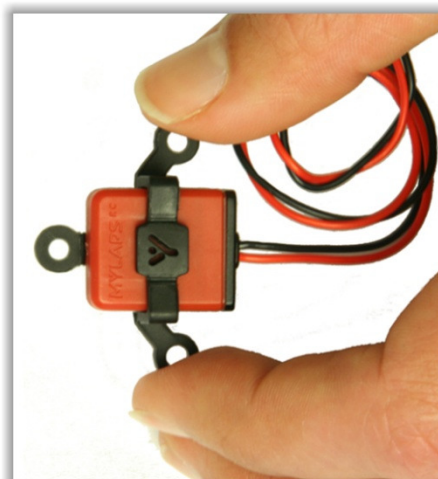
- Ambient temperature measured in transponder stored online
- Transponder operating voltage stored online
- Even better signal hit rate
- And more to come...

New pricing

- Lower price than current RC2 Transponder (formerly known as AMBrc-DP transponder)



Current RC2 Transponder



New RC4 Hybrid Transponder

MYLAPS RC4 Decoder

RC4 firmware update

RC3 Decoders can be turned into an RC4 Decoder by means of a firmware update (available as of February 2010). From February 2010 all new decoders will be shipped with the new RC4 firmware.

The RC4 Decoder has the following advantages:

- Supports the new RC4 communication protocol
- More reliable
 - More sensitive signal detection due to optimized digital receivers
 - Double hit rate for RC4 Transponders
- More features
 - Ambient temperature upload * / **
 - Transponder operating voltage upload **
 - Supports Car ID Transponders **
 - Supports *Loop trigger* functionality
 - Many more...
- Fully backwards compatible with current MYLAPS RC2 Transponder (formerly known as AMBr-DP transponder)

Loop trigger

The Loop trigger is a small tube installed in the track that generates a signal every 5 minutes and allows the RC4 Decoder to **verify the loop** is good without having to pass with a transponder. The loop trigger includes a temperatures sensor which allows the RC4 Decoder to **measure the track temperature**. This information will also be made available in MYLAPS Practice, where we will also **record local weather information**.

Internet connection

All RC3 and RC4 Decoders can be hooked up to the internet. This offers the following features:

- System check to minimize performance failure
- Track temperature measurement
- 24/7 practice result functionality

The GPRS module add-on makes it even easier to connect your decoder to the internet via a wireless connection to enable you to benefit from the online functionalities.

* Measured in transponder

** Available from February 2010



Specifications

Transponder specifications

Features	New MYLAPS RC4 Transponder	Current MYLAPS RC2 Transponder (AMBrc-DP)
Size (WxLxH in mm)	16x19x6	22x27x7
Weight (g)	4.0	7.8
Weight incl. holder (g)	4.7	
Operating voltage (V)	2.8 – 16.0	4.0 – 8.0
Power consumption (mA)	19	20
Wiring isolation	PTFE / Teflon**	PVC
Wiring length		
Quick change holder	Yes	N/A
Connector	Generic receiver 3-pole	Generic receiver 3-pole

* Measured at 6.0 volt (receiver output)

** Gasoline / Nitro-methane resistant, no aging

Test results

Transponder type		RC4 noise 100			RC3 noise 100		
Type	Number	Passings	AVG Hits	AVG Strength	Passings	AVG Hits	AVG Strength
AMBrcDP	3890905	125	19,7	161,9	127	18,6	151,1
AMBrcDP	8023965	124	20,0	160,1	126	18,5	150,2
MRT Ptx	4131822	124	20,2	159,5	127	16,9	151,1
RC4 Hyb	3384494	125	45,5	165,1	127	18,1	156,1
RC4 Hyb	3836705	124	46,1	164,0	127	19,1	155,0