



REVOLUTIONARY ACTIVE CHIP TIMING

Orion Ceres is a revolution in active chip timing. The multi-channel programmable transponder paired with next-generation decoder technology delivers results with unrivalled accuracy and reliability for mass starts and high-speed finishes. It makes timing endurance and motor sports simple whether an international competition or a small local event.

Providing the time of your life

Orion Ceres provides the platform to deliver a rich media experience for riders, spectators, officials, event managers and the media with instant communication of live race data to the internet, scoreboard, television or cellular phones. Technological advancements in the transponder and decoder have resulted in a system that delivers superior performance at a lower cost enabling any organization, large or small, to professionally time their event.

Key Benefits

- Congested starts and high speed finishes are easily managed in all weather conditions by the smart technology.
- Reliable, accurate results for all participants
- Suitable for cycling, running, water sports, speed skating, pari-mutuel, skiing, motor sport and more
- Portable, fast and simple to set up
- Programmable transponder ID
- Programmable transponder speed reduces battery usage
- No charging of transponder battery
- Up to 8 channels for increased accuracy and detection rate
- Each decoder can manage up to 15 intermediate loops
- Built-in protection from environmental noise

Application 24-Hour Moto Endurance



Challenge: The Bol d'Or at Magny-Cours, France was the fifth and penultimate round of the 2010 World Moto Endurance Series. With 63 professional and amateur teams contesting the championship over 24 hours around Circuit de Nevers it was critical that both riders and their high performance bikes were accurately timed on each of the nearly 800 laps at speeds over 150 km/hr. A large investment had been made in improving the facilities and activities for the

spectators, therefore organizers demanded that live data be available to ensure that enthusiasts never missed any of the action.

Solution: The 8-channel Orion Ceres teamed with Chronos event management software proved to be perfect partners for this iconic event. The motorcycle was fitted with the PRO transponder and each rider wore the MC transponder. Four decoders were deployed to capture the entry and exit to the pit lane, the finish line and two intermediate split time points around the track. This ensured that officials knew at all times who was on the track, where they were and the current leaders based on laps completed.

All of the race results were fed live to the large number of big screens and scoreboards at the track as well as to television broadcasters, the press office, the internet and by SMS to cellular phones. The organizers were thrilled with the accuracy and reliability of Orion Ceres and the real-time streaming of race data. The media, spectators and off-course enthusiasts intimately followed the race tracking progress of their favourite team as the race unfolded in detail before them.

Application Cyclocross World Cup



Challenge: Cyclocross is the fastest growing cycle activity in the world and the UCI World Cup leg in Aigle, Switzerland, epitomises this exciting action-packed sport. The obstacles on the fast, technical courses in winter conditions typically coupled with over one hundred riders competing in different categories pushes manual timing to beyond its limits. Organizers were looking for a total electronic timing solution with the best hardware to ensure that accurate and reliable results could be fed live to the internet and television viewers.

Solution: Orion Ceres paired with the 4-channel medium speed transponder and integrated with a high-speed photo finish camera captured all of the riders' laps and finish times. The system provided the accuracy and reliability of results demanded for this elite competition.

Using the Chronos software, results and images were automatically fed to on-site scoreboards, the internet and the television control room for instant communication of performances. The riders and organizers were delighted with the speed and accuracy of the results delivered by the Orion Ceres solution whilst the spectators and supporters could not help but be caught up in the roller coaster ride of emotions as the race unfolded.



DECODER



ANTENNA LOOP



Coverage	50 metres per loop
Read Height	0 - 40m (0 - 131ft) dependent on Transponder Type
Environmental	Operates in all weather conditions
Tuning	Auto adaptive loop optimizes performance according to ground type
Dimensions	116mm x 116mm x 57mm 0.8kg (4½in x 4½in x 2¼in 1.8lbs)
Power supply	Via Decoder or Standalone - 12VDC or 110 - 220 VAC
Receive antenna	Up to 100m

TRANSPONDER



Transponder	MC	PRO
Dimensions	25mm H x 25mm L x 9mm W 1in H x 1in L x ½in W	60mm H x 45mm L x 25mm W 2½in H x 1¾in L x 1in W
Weight	15g (0.5oz)	95g (3.3oz)
Maximum speed	100km/h (62mph)	400km/h (250mph)
Read Height	0 - 3 metres (10 feet)	0 - 40 metres (131 feet)
Channel Speeds	0.04s, 0.01s or 0.003s	0.04s, 0.01s or 0.003s
Life	3 years or 100,000 passes	3 years or 300,000 passes
Channels	8 programmable channels on 4 frequencies	
Unique ID	Programmable up to 8 digits	

Operating frequencies	315, 434, 868 or 915MHz
Communications	USB Port and either Ethernet, Modem, GPRS, WIFI, RS485 or Bluetooth
Data output	Data stream or log file
Inputs	External photocell, start gates, switches and remote
Outputs	SD Card and audio output
Onboard storage	>10,000,000 reads
Anti-collision protocol	1 channel - 10 transponders simultaneously / 200 passes per minute 4 channels - 40 transponders simultaneously / 800 passes per minute 8 channels - 80 transponders simultaneously / 1500 passes per minute
Detection probability	~100%
Detection accuracy	±3/1000 sec (0.003)
Time drift	TCXO 0.5ppm at 20°C to 1ppm at -45°C to +70°C + GPS synchronization (TCXO 0.5ppm at 68°F to 1ppm at -49°F to +158°F + GPS synchronization)
Power supply	12VDC or 110 - 220 VAC
Case	Special alloy EMS surround
Dimensions Weight	220mm L x 220mm W x 110mm H (8¾in L x 8¾in W x 4¼in H) 3kg (6lbs)
Operating temperature range	-45°C to +70°C (-49°F to +158°F)

About Times-7 Sport



Times-7 Sport is setting the pace with next generation timing technology, offering complete sports timing solutions that deliver accurate and timely results. Unlike other systems that are either too expensive or complex. Times-7 Sport has combined the most advanced user-friendly hardware and software to provide timing solutions that are more affordable than ever and deliver results quickly, easily and accurately.

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