

Acura lights up the rears and front

Advanced LED technology from BERU f1systems ensures better visibility, simpler maintenance and increased sponsorship identity on Acura LMP sportscars

Motorsport engineering specialist BERU f1systems, has developed two LED arrays that increase visibility yet only occupy a small package space to satisfy weight, complexity and aerodynamic demands. The first, a rear light cluster provides improved visibility across a wide viewing angle, whilst the second, an identification LED array, offer teams the opportunity to highlight sponsors' logos and clearly see their car even at night time.

"Historically, the lights on LMP cars have been mounted on the undertray which increases wiring complexity during build and hampers repairs," says BERU f1systems' principal application engineer Gary Norman. "Acura identified a small package space on the rear bodywork that could be used as a location. Working closely with Acura we were able to develop the cluster with a single line of LEDs to keep the undertray area wire free."

Ensuring good visibility of the small rear cluster was critical. "Cars have previously been called to the pits because it was difficult for race marshals to see that the lights were on," adds Norman. Drawing on its extensive experience and close relationships with suppliers, BERU f1systems identified a robust LED that could provide the wide viewing angle that would allow officials at the side of the track to easily see the lights. The light units also incorporate voltage regulation circuitry to ensure consistent light output even if the vehicle supply voltage fluctuates.

Minimal surface area on the bodywork to attach a light cluster led Acura to specify the novel "horseshoe" that incorporates brake, tail and indicator lights. BERU f1systems' designed a lightweight and slender LED array to fit in the

package envelope. Achieving this meant aero interference was kept to a minimum.

BERU f1systems has expanded the technology to create identity light kits that provide distinctive and visible LED shapes that offer increased visibility for sponsor's logos, even at night or in reduced visibility. "The LED arrays not only allow the team to quickly identify their car on track at night but they can be used to increase visibility of sponsors' logos in reduced light levels," continues Norman. The Andretti Green XM Acura featured an array similar to the XM logo at Sebring, making it easily identifiable amid similar LMP2 cars. "The small package space means that they can be placed in a host of prominent locations, such as on the side or at the front of the car," says Norman. "With at least five colours available, we are able to recreate many logos or individual patterns."

About BERU f1systems

Founded in 1993 and since 2001, a specialist division of BERU AG, BERU f1systems offers advanced design and manufacturing facilities for vehicle wiring harness systems, tyre pressure monitoring, stress measurement and composites. Supplied to world championship winning cars in every major formula and every Formula 1 team, components from BERU f1systems are now available in military, road car, aerospace and nautical applications. In January 2007, BERU f1systems won the prestigious Autosport International Innovation of the show for its Wire in Composite technology.

Photographs

Available from Nick Bailey or Kelly Dalwood by email (see below)



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Sales Enquiries

John Bailey, Managing Director,

BERU f1systems, Technical Centre, Owen Road, Diss, Norfolk, IP22 4ER, UK

Tel: +44 (0) 1379 646200

Email: john.bailey@bf1systems.com

Press Enquiries

Nick Bailey or Kelly Dalwood

Market Engineering Ltd. 43-44 North Bar, Banbury, OX16 0TH, UK.

Tel: +44 (0) 1295 277050

Fax: +44 (0) 1295 277030

Email: nick.bailey@m-eng.com kelly.dalwood@m-eng.com

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