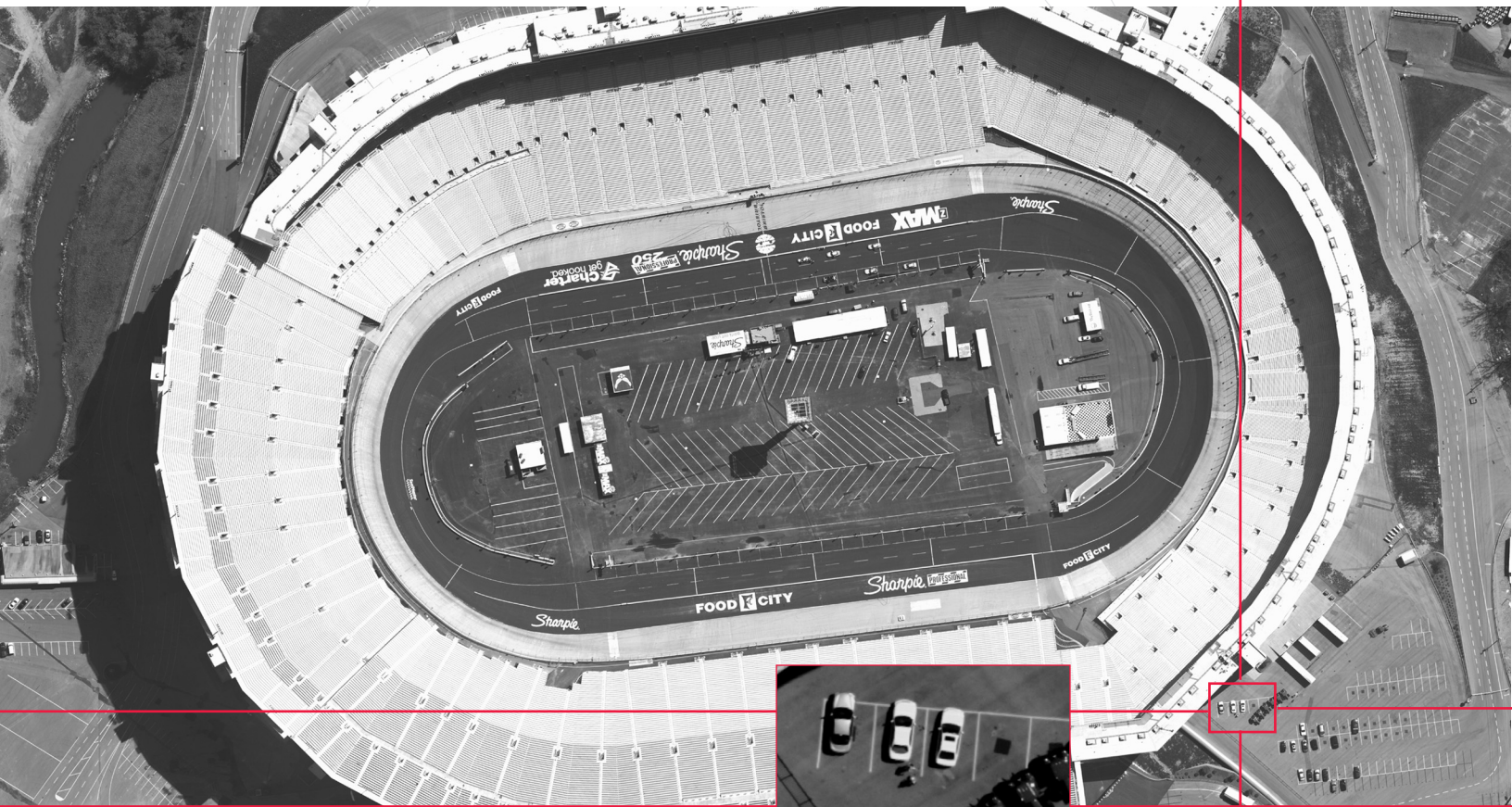


# ADS40 Large-Scale Digital Imagery

*You need it.  
The ADS40 provides it.*

**5 cm**  
spatial  
resolution from  
the industry's  
#1 airborne  
digital sensor.



The ADS40 Airborne Digital Sensor  
from Leica Geosystems GIS & Mapping.



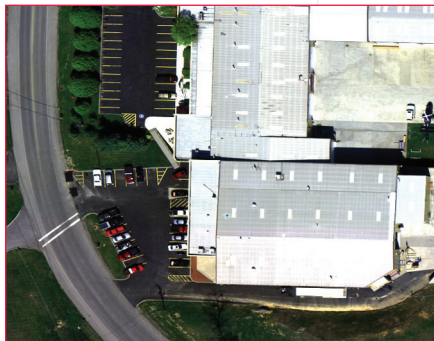
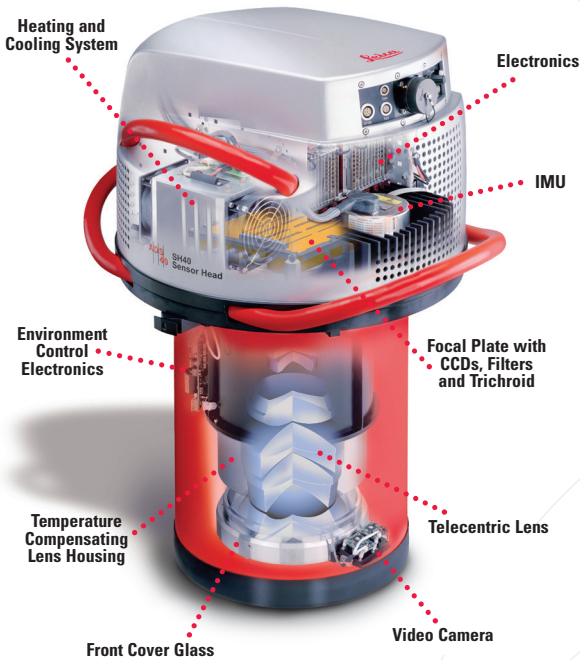
**The proof is in the picture. See the results for yourself.**



For more information about the  
Leica ADS40, call +1 303 799 9453,  
toll-free +1 877 463 7327 or visit  
[gis.leica-geosystems.com](http://gis.leica-geosystems.com).

**Leica**  
Geosystems

# Specifications



Images from the ADS40 sensor show the Bristol Motor Speedway in Bristol, Tennessee, USA, near the Virginia-Tennessee state line. Bristol has been the site of numerous NASCAR-sanctioned events since 1961.



## Electronic Characteristics

Dynamic range CCD chain	12-bit
Resolution A/D converter	14-bit
Data channel	16-bit
Data modes	Raw data, compressed
Data compression factor	2.5x – 25x
Data normalization modes	Linear, non-linear
Radiometric resolution of compressed data	8-bit
Recording interval per line	≥ 1.2 msec

## Spectral Range and Filters

Spectral range	Panchromatic, RGB, Near Infrared	
Spectral bands	<b>Band</b>	<b>l (nm)</b>
	Panchromatic (trapezoidal)	465 – 680 (at $\lambda_c = 50\%$ )
	Red (rectangular)	610 – 660
	Green (rectangular)	535 – 585
	Blue (rectangular)	430 – 490
	Near-infrared (rectangular)	835 – 885

## Mechanical Interface

Sensor Head SH40	Weight: 66 kg; diameter: 59 cm; height: 76 cm; fits PAV30 mount
Control Unit CU40	Weight: 43 kg; 19" rack mountable Width: 45 cm; height: 34 cm; depth: 52 cm
Mass-Memory MM40	Weight: 19.5 kg, removable, portable
Operator Interface OI40	Total weight: 14 kg
IS40 Interface Stand	IS40 stand fits RC30 NAV-sight installation
IMU/GPS (Applanix POS 510-OEM)	IMU integrated with SH40, GPS and POS integrated in CU40
Mount	Fits into Leica PAV30 gyro-stabilized mount
Total weight installed	224 kg

## Operational

Capacity of Mass Memory	580 GB hard disk for up to 9h recording in ADS40 data format at 2.5 msec interval with 3 panchromatic and 4 spectral bands
Geometric resolution and Ground Speed (GS)	GSD 1/2 ft / 15 cm: < 240 kn GSD 1 ft / 30 cm: < 480 kn GSD 2 ft / 60 cm: < 970 kn

## Environmental

Pressure	Non-pressurized cabin up to 25,000 ft (7,620 m)
Humidity	0% to 95% rH
Operating temperature	-20 °C to +55 °C
Storage temperature Sensor Head SH40	-40 °C to +70 °C
Storage temperature Control Unit CU40	-40 °C to +85 °C

## Electrical

Average power consumption SH40, CU40, PAV30	< 750W / 28 VDC
Fuses	Typically 2 x 20A or 1 x 33A

## Standards

General standards for temperature, electronics environment, etc.	ISO 7137; RTCA DO-160D
Electronic conformity	FCC Part 15
EMC standards	EN 50082-2; EN 55022
Standard for emergency landings	FAR § 25.561

Information subject to change without notice.