

UC Processor Application

The easy way to test ride and handling

by
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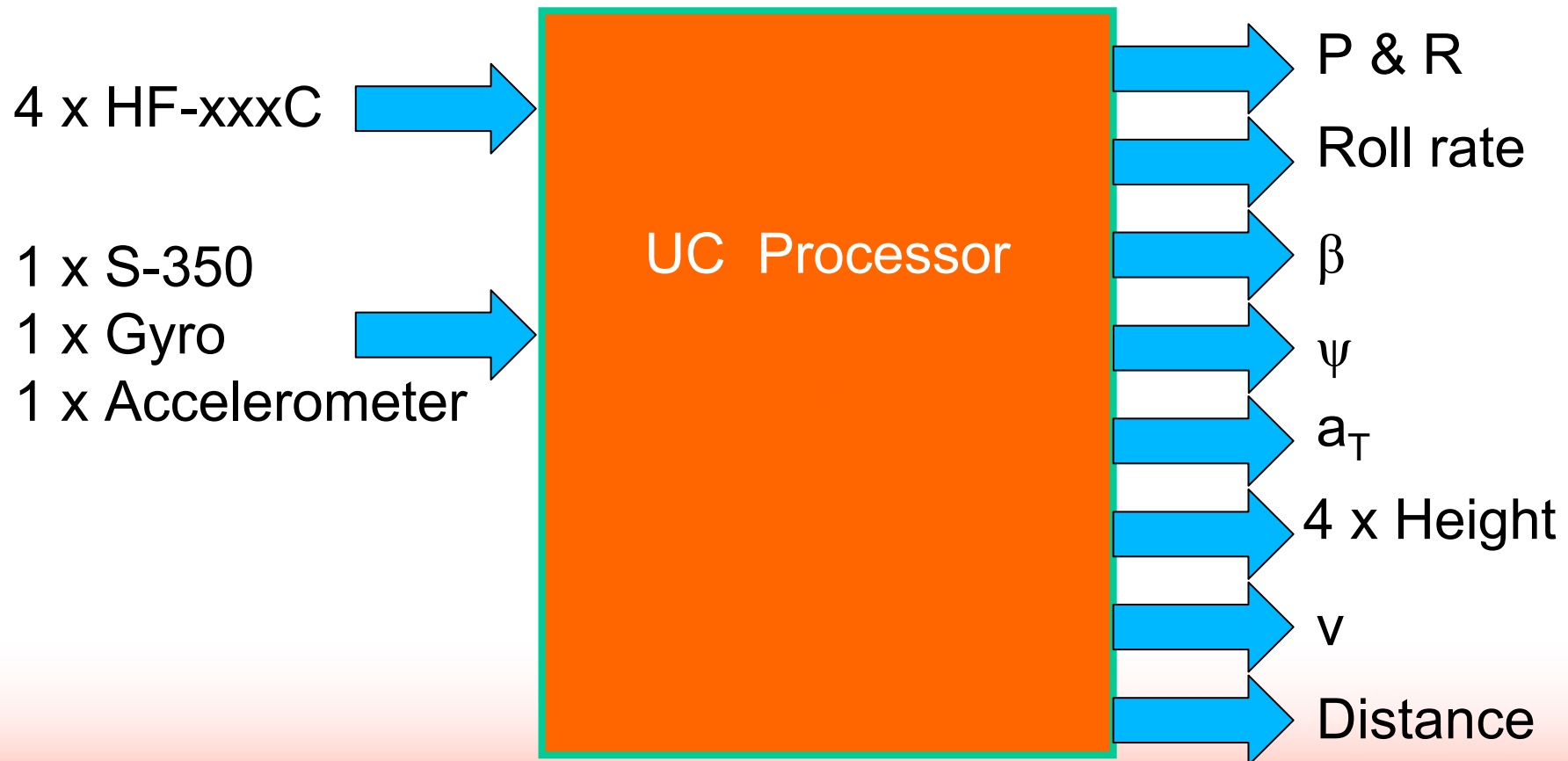
Why UC Processor?

- Calculation of Pitch & Roll angle using up to four height sensors
- Configuration via USB interface, easy setup for the user
- Supply of all data via CAN
- Power supply for the connected height sensors
- Set a zero point for all connected height sensors via push-button
- Cross-linking of several sensors via CAN or CDS Bus
- Online indication of the dynamic performance values via display
- Ability to save all channels

UC Processor for Pitch & Roll



Inputs / Outputs



HF Sensors

	HF 250C	HF 500C	HF 750C
Working range	100 mm ... 350 mm	125 mm ... 625 mm	150 mm ... 900 mm
Resolution	0.1 mm	0.2 mm	1.5 mm
Relative Accuracy	±0.5 mm	±1 mm	±1 mm
Linearity	±0.2 %	±0.2 %	±0.3 %
Max. Sampling rate *	1 kHz	1 kHz	8 kHz
Outputs	analog, RS232, CAN	analog, RS232, CAN	RS232, CAN
Light Source	Laser < 5mW **	Laser < 5mW **	Laser < 5mW **
Wavelength	660 nm (red)	660 nm (red)	660 nm (red)
Weight	155 g	155 g	155 g



* Sampling rates up to 8 kHz are possible on surfaces with high reflection

** Laser class 3R (IEC 60825-1)

Accuracy for Pitch and Roll angle

Smart

Dimensions		Accuracy with HF-500C		Accuracy with HF-750C	
a [mm]	b [mm]	Roll [°]	Pitch [°]	Roll [°]	Pitch [°]
1700	2700	0,07	0,04	0,15	0,10

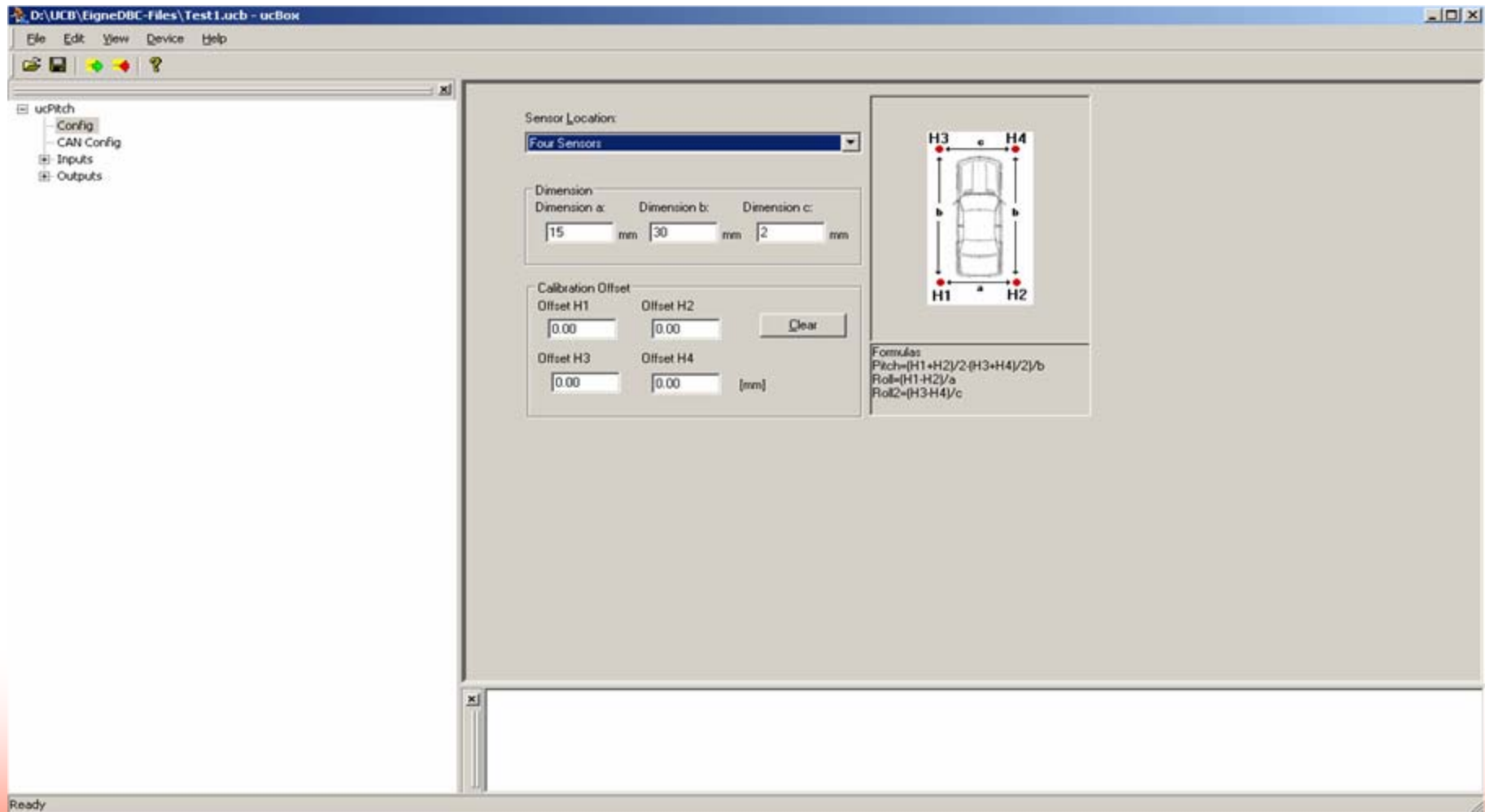
Skoda Octavia

Dimensions		Accuracy with HF-500C		Accuracy with HF-750C	
a [mm]	b [mm]	Roll [°]	Pitch [°]	Roll [°]	Pitch [°]
1900	4700	0,06	0,02	0,14	0,05

Audi Q7

Dimensions		Accuracy with HF-500C		Accuracy with HF-750C	
a [mm]	b [mm]	Roll [°]	Pitch [°]	Roll [°]	Pitch [°]
2200	5300	0,05	0,02	0,12	0,05

Configuration Software



Real Sensors



UC Box



HF 500C



S-350



**Gyro & Acceleration
sensor**



MSW



CAN DBC

UC Processor supply's

- Pitch and roll angle
- Pitch and roll rate
- Body slip angle
- Vehicle speed
- Distance
- Yaw rate
- Transverse acceleration
- Steering wheel angle
- Steering wheel torque

Benefits for the user

- Easy to use
- All signals to the DAS via CAN
- The user saves 9 analog inputs and 1 digital input
- Price for one analog input approx. 490 € (bipolar)
- Price for one digital input approx. 450 €
- Smaller DAS
- User can save money!

Reference List

- AGCO GmbH Germany
- Bosch Engineering GmbH;BEG/CTG Germany
- Continental Teves Germany
- Corrsys-Datron Sensorsystems, Inc. USA
- Daimler do Brazil Ltda. Brazil
- Honda R&D USA
- Johne + Reilhofer S.A. France
- Technische Universität Darmstadt Germany

Thank you