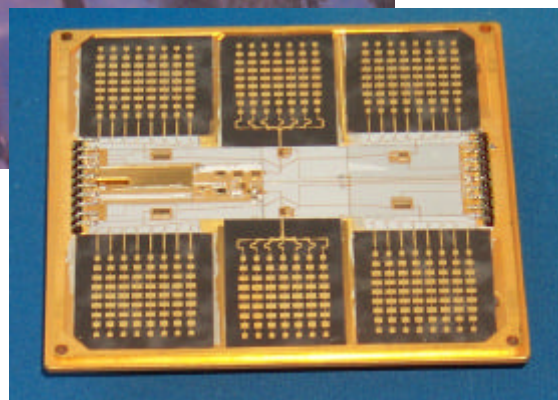


Safety at your fingertips

new, highly integrated, very accurate automotive radar sensors for collision warning and parking assistance



Collision warning radar frontend
3 antenna beams / -10° 0° $+10^{\circ}$

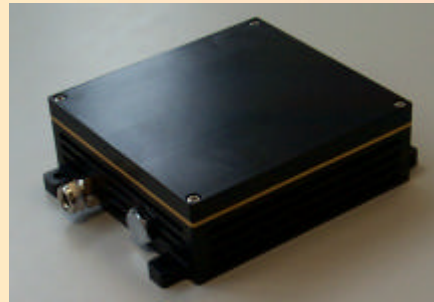


Size with radom:
98 x 92 x 9 mm

Automotive Radar Sensor for Collision Warning (Model MRS 77)

Typical Applications

- Crash impact prediction sensor
(dynamically adjust airbag sensitivity)
- Automatic (emergency) braking sensor
- Traffic sensor to aid Stop & Go operation



Sensor Features

- Vehicle separation distance measurement
- Relative velocity measurement
- Multiple object detection capability
- Parallel operation (supports multiple sensors, even with overlapping fields of view)
- Resistent to jamming by other radar sensors
- three switchable antenna beams

Performance Data (parking aid and pre-crash exemplary)

Transmit-Frequency	76 to 77 GHz
Bandwidth, Modulation	< 490 MHz, FMCW
Transmit-Power	8 mW typical
Distance measurement	1 to 50 meter
Distance-measurement accuracy	< 0.5 m or 5% of distance
Velocity-measurement accuracy	< 1 km/h
Antenna-Beamwidth (3dB)	10 x 10 degrees
Beam-Positions	0°, +10°, -10°
Update-rate	< 100 msec
Mechanical dimensions	98,5 mm x 92,5 mm x 34 mm
Weight	< 500 g
Power Supply	typ.12 V , min. 9 V, max. 15V
Current at 12 V	< 750 mA
Power consumption	max. 9 Watt
Interface	RS232, CAN (optional)

Technology

Compact planar design with microstrip patch antennas and active components mounted on antenna surface. Fullfills high volume, low cost, fully automated production.

Automotive Radar Sensor for Parking Assistance (Model SRS 77)

Application

- Parking assistance
- Automatic parking
- Crash impact prediction sensor
(to dynamically adjust airbag sensitivity)



Sensor Features

- Vehicle separation distance measurement
- Relative velocity measurement
- Multiple object detection capability
- Parallel operation (supports multiple sensors, even with overlapping fields of view)
- Resistent to jamming by other radar sensors
- five switchable antenna beams

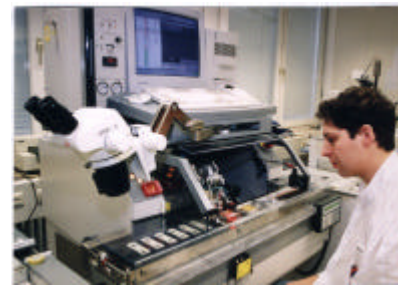
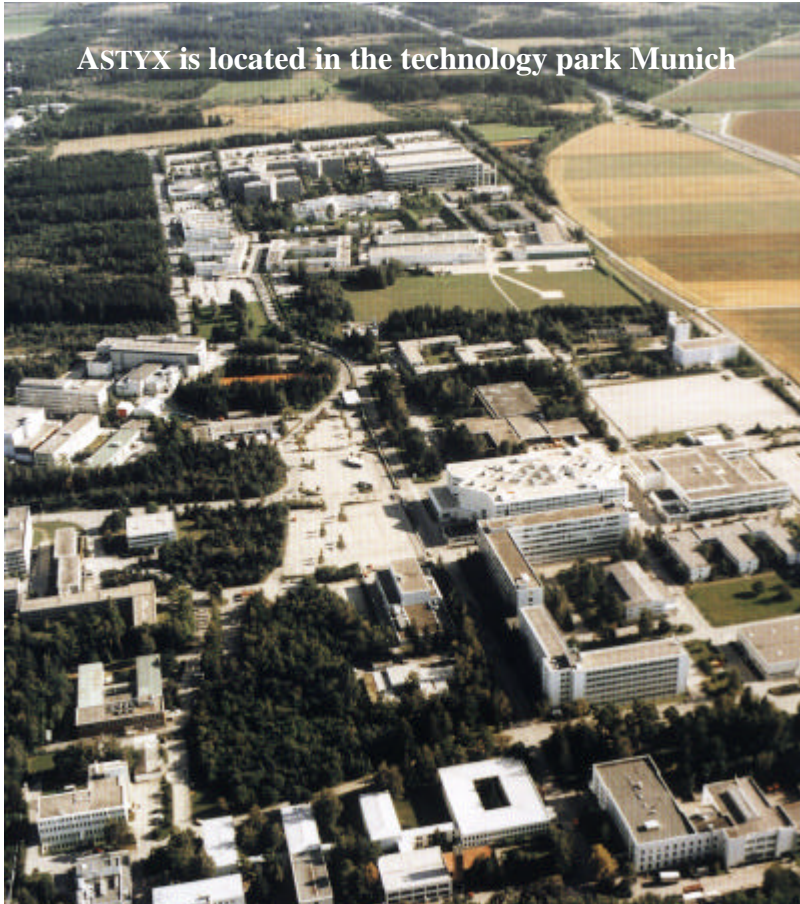
Performance Data

Transmit-Frequency	76 to 77 GHz
Bandwidth, Modulation	< 900 MHz, FMCW
Transmit-Power	8 mW typical
Distance measurement	0 to 5 meter
Distance-measurement accuracy	< 5 cm or 5% of distance
Velocity-measurement accuracy	< 0.5 km/h
Antenna-Beamwidth (3dB)	30 x 20 degrees
Beam-Positions	0°, +30°, -30°, +60°, -60°
Update-rate	< 100 msec
Mechanical dimensions	84 mm x 70 mm x 35 mm
Weight	< 300 g
Power Supply	typ.12 V , min. 9 V, max. 15V
Current at 12 V	< 700 mA
Power consumption	max. 8.4 Watt
Interface	RS232, CAN (optional)

Technology

Compact planar design with microstrip patch antennas and active components mounted on antenna surface. Fullfills high volume, low cost, fully automated production.

ASTYX is located in the technology park Munich



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