

Houston Radar DR500S OEM Doppler Speed Radar

Short Form Datasheet
Rev 3 April 2009



Availability: Full Production

Houston Radar's DR500S K-Band Doppler speed radar is a state of the art low power Digital Signal Processing (DSP) based OEM radar for the traffic calming market.

It is the premier product in its class available in the world.

- Lowest power industry standard radar for speed measurement
- Directional, picks up either incoming or outgoing vehicles/objects
- 1500 feet (457m) typical pickup range for a compact vehicle
- FCC pre-approved with CE mark for worldwide deployment
- Available in 24.125GHz and 24.200Ghz center frequencies for US, UK, Australian and other worldwide markets
- Fully configurable via 2x RS232 serial port for enhanced flexibility
- Wide input voltage operating range allows solar operation
- IP65 Weatherproof enclosure
- Firmware "boot loader" allows for field upgrading of firmware
- Best in class "Advanced In-Radar" traffic statistics option available
- One 600mA current sink "vehicle detect" trigger output
- Advanced self-test feature built-in



Specifications & Recommended Operating Conditions

| | | |
|-----------------|---|--------------------------|
| VCC | 9.6VDC min | 18VDC max (21V tolerant) |
| ICC@12VDC | 54mA min | 64mA max (58mA nominal) |
| RF out | | 5mW |
| Freq out | 24.125GHz center | ±25MHz (24.2 available) |
| Operating °F/C | -40min | 185°F/85°C max |
| Trigger output | | 600mA sink max |
| Comm Interface | 2x 3 wire RS232 | |
| Baud Rate | 1200 to 115200 baud configurable | |
| Pickup Distance | 1500 feet(457m) typical for compact car | |
| Beam Angle | 12°x14° | |
| Polarization | Linear | |
| FCCID | TIADR500 | |
| CE Mark | Yes | |

| | |
|------------|---|
| Dimensions | 5.5" length x 3.7" diameter (14cm x 9.4cm) |
| | Dims excluding mounting bosses and cable exit |
| Weight | 1.2lb (0.5Kg) approx |

Note: Pickup range will vary with target, installation and road conditions.

Range listed is typical on open road with radar mounted 5 feet above ground

IO/PWR Connection Details

| Pin# | Function | Dir | Description |
|------|-----------|-----|--------------------|
| 1 | VCC | PWR | 9.6 to 18VDC |
| 2 | PRI 232TX | Out | Primary RS232 TX |
| 3 | PRI 232RX | In | Primary RS232 RX |
| 4 | AUX 232RX | In | Auxiliary RS232 RX |
| 5 | GND | PWR | VDC Ground |
| 6 | AUX 232TX | Out | Auxiliary RS232 TX |
| 7 | Trig | Out | Open Drain Trigger |
| 8 | N/C | - | Do not connect |
| 9 | GND | PWR | VDC Ground |

Note: Connector is male DB9.

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