

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 \pm 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.