HOUSTON RADAR

SpeedLane

Houston Radar SpeedLane

Houston Radar SpeedLane™ is state of the art **true dual beam, low power side-fire radar**. It is designed to accurately detect lane, speed and class of individual vehicles and compute per lane volume, occupancy, gap, average speed, 85th percentile and headway parameters.

Features and Benefits

- Patent pending true dual beam "speed trap" technology inherently provides accurate measurements without the need for in situ calibration.
- World's lowest power usage highly integrated multi-lane traffic measurement radar. At 0.8 Watts SpeedLane requires 10X less power than competing products.
- FCC and CE approved for full 250MHz operation to suite variety of application requirements.
- Mounts on the side of the road for non-intrusive traffic data collection and works in all weather and lighting conditions.
- Simultaneously measures all vehicles in 8 user defined lanes.
- All traffic measurements are on per vehicle, per-lane basis, available in real-time and stored in device memory.
- Lane-by-lane vehicle counts, length based class, average and 85th percentile speeds, occupancy, headway and gap measurements.
- Companion Windows application provides intuitive GUI to set all configuration parameters, display real time plots of targets and view snapshots & streaming HD video.
- Built-in long range Class I 2.1+EDR Bluetooth, RS232/RS485 serial ports and Ethernet.
- 512 Mbytes of on-board storage plus uSD card expansion slot.
- Built-in 1.3MP HD video camera for sighting makes setup a snap and allows convenient remote monitoring of traffic.

Specifications & Recommended Operating Conditions	
Specification	**Recommended Condition**
Type	True dual beam side-fire FMCW radar
Vcc	Standard: 7 to 15VDC Optional: Isolated 9 to32VDC
Icc@12VDC	Ethernet Off: 67mA (0.8 W) Ethernet On: 97mA (1.2W)
Reverse Power	Protected w/ resettable fuse
RF Power	5 mW maximum each radar
Occupied Band	24.020 GHz to 24.230 GHz
Modulation Type	Frequency with linear ramp
Beam Angle	20°x60°
Beam Polarization	Linear
Speed Accuracy	Average per lane: +/- 1% Average per direction: +/- 1% Per Vehicle: +/- 6% for 90% of vehicles
Volume Accuracy	Per Direction Typical: 98 to 99% Per Direction Minimum: 95% Per Lane Typical: 98 to 99% Per Lane Minimum: 90%
Length Class Accuracy	+/-5.7ft (1.7m) for 90% vehicles
User Defined Lanes	8 max
User Defined Length Class	8 max
Trigger outputs	8 Isolated Open Drain Optional
Range	160 feet (49m) max 145 feet (44m) recommended
Minimum Setback	6 feet (1.8m)
Sample rate	500 Hz x 2 Radars
Certification	FCC, CE
Dimensions without mounting bracket	26"length x 3"diameter (670mm x 76mm Diameter)
Weight	Without battery: 4.6lb (2.1 Kg) With battery: 6.4lb (2.9 Kg)
Ethernet	Optional: 10/100 BaseT Half/Full Duplex auto polarity detect
Power Over Ethernet	Yes, optional 802.3af. Mode A/ Type 1 (power over data pairs)

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12818 Century Drive, Stafford, TX 77477
http://Houston-radar.com
Toll Free: 1-888-602-3111

Features and Benefits Continued…

- Comprehensive Houston Radar protocol, C and C# SDK.
- Powerful SQL based query interface for historical data.
- Optional built-in UPS with rechargeable battery keeps unit running for over 24hrs on loss of external power.
- Optional MPPT solar charger for optimal winter and cloudy day charging.
- Optional on-board 96Whr LiFePO4 battery for temporary or solar installations.
- Optional Wireless 3G GSM cellular for remote access.
- Optional POE (power over Ethernet).

Specifications & Recommended Operating Conditions	
Rechargeable Battery	96WHr LiFePO4, optional
Solar Kit	MPPT charger, 30W solar panel
Storage Capacity	Speed, lane and class for 1,000,000 vehicles. Per lane average speed, 85th percentile speed, occupancy, gap, headway for 6+ months
Sighting Camera	1.3MP HD video (Ethernet only) or HD snapshots. 60° field of view 1280x960, 800x600, 640x480, 320x240 (800x600 10fps video)
Bluetooth	Ultra low power 800+ feet Class I 2.1+ EDR 460KB baud rate
Remote Access	Optional 3G GSM modem
Operating °F (°C)	Without battery: -40F (-40C) to +185F (+85C) With LiFePO4 battery: -4F (-20C) to +140F (+60C)

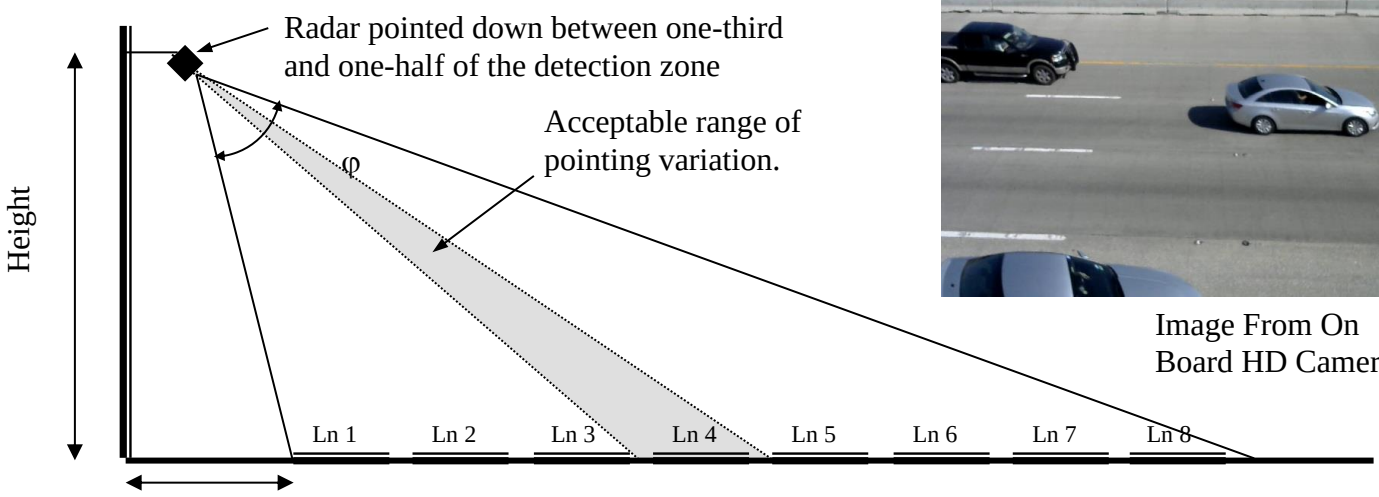

Image From On Board HD Camera

SpeedLane Setup Table (φ=60°)				
Number of 12 feet (4m) lanes	Minimum Setback (ft)	Minimum Setback (m)	Minimum Height (ft)	Minimum Height (m)
1	6	1.8	4	1.2
2	10	3.0	17	5.2
3	13	4.0	17	5.2
4	15	4.6	20	6.1
5	17	5.2	21	6.4
6	20	6.1	23	7.0
7	22	6.7	25	7.6
8	24	7.3	27	8.2

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