

MPH Industries

316 East 9th. St. - Owensboro, KY 42303

1 866 674 7378 ext. 3

FAX: (270)685-6288

QUOTE

Date	Quote Number
01/16/08	AAAQ1024

Sold To: Hidalgo Constable Precint 1
Jim Wallen
1902 Joe Stephens Ave
Weslaco, TX 78596
U.S.A.

Email:
Phone: (956)373-4677
Fax: (956)968-9320

Ship To: Hidalgo Constable Precint 1
Jim Wallen
1902 Joe Stephens Ave
Weslaco, TX 78596
U.S.A.

Phone: (956)373-4677
Fax: (956)968-9320

HGAC Contract # EF04-07

Terms	Rep	P.O. Number
Net 30 days	Kim Robbins	

Ln #	Qty	Description	Unit Price	Ext. Price
1	1	Python III K-Band Dual Antenna Radar Unit includes Readout, remote, antenna(s), cables, operators manual, two certified tuning forks, and a 2 yr limited factory warranty	\$1,174.00	\$1,174.00
2	1	GVAC Fee 1 1/2%	\$18.00	\$18.00
			SubTotal	\$1,192.00
			Sales Tax	\$0.00
			Shipping	\$8.00
			Total	\$1,200.00

**Quote for valid for 60 days from above date.

**Tax not included if applicable.

Python® Series III

Standard K-band dash-mounted traffic radar

This specification describes a state-of-the-art K-band traffic radar. The radar shall measure vehicle speeds from a stationary or moving patrol vehicle. The radar shall be conform to all NHTSA specifications, and it shall be listed on the most recent IACP Consumer Products List.

The K-band radar unit being proposed by the bidder must be a standard production-model radar and not a prototype. The successful bidder must have prior experience of providing their proposed K-band radar model to state-level agencies in comparable quantities to the State's needs, and evidence of this experience must be provided to the State upon request.

1. System specifications

1.1 The radar unit shall operate at a nominal 13.6 Vdc and be fully operational from 10.8 Vdc to 16.5 Vdc (battery voltage +/- 20%).

1.2 Operating current shall never exceed 1.8 Amps.

1.3 The radar unit shall operate from -30 °C (-22 °F) to 60 °C (140 °F).

1.4 The radar unit shall operate up to 90% relative humidity @ 37 °C (99 °F).

1.5 The radar shall provide an audio signal that is a true representation of the Doppler signal generated by the target vehicle. The audio shall increase in volume as the target vehicle approaches the antenna and increase in pitch with an increase in closing speed. The speaker for the audio signal shall be located on the readout unit. The speaker for the Doppler audio shall be located on the top of the radar's counting unit.

1.6 The counting unit shall be of the modern DSP (Digital Signal Processor) type utilizing Fast Fourier Transform (FFT) technology.

1.7 All indicators and displays shall automatically adjust their brightness for optimal day/night viewing. The speed displays shall be at least 0.4 inches tall.

1.8 The radar unit shall use standard RS-232 signal levels and a 9 pin connector to communicate with external devices such as a large display, a remote display, or mobile video system. The radar shall also be able to be controlled via the data port.

1.9 No connectors will be present on the front panel of the counting unit. Provisions shall be made on the rear of the counting unit for the attachment of the antennas and the remote control, and the connectors shall be such that neither an antenna or remote control can be connected to an improper receptacle.

1.10 The counting unit shall be no larger than 1.7” tall by 6.5” wide by 4.9” deep. It shall be supplied with a detachable sunshield to inhibit glare on the display.

2. System Indicators

2.1 When the operating voltage is below 10.8 Vdc, the radar unit shall display no active speed readings and shall indicate the low voltage condition.

2.2 The radar unit shall employ radio frequency detection circuitry and the presence of such interference shall be indicated. The radar unit shall not display any active speed indication when interference is present.

2.3 The radar unit shall indicate the currently active antenna. This indication shall employ an easily-understandable cluster of LEDs that shall be laid out in the shape of a roadway. Via this mode window, the operator must be able to tell if the radar is in standby or if it is transmitting, which antenna is currently selected, and the direction of the target vehicle.

2.4 The indication of the radar mode must be retained after a speed has been locked in and the unit placed in standby. The radar unit shall indicate the antenna on which a target was locked and the target's direction of motion with a flashing indication of one of the mode window's target arrows.

2.5 The radar unit shall provide a visual indication when stationary mode is engaged.

2.6 The face of the counting unit shall be black in color, so that all of the displays are “deadfronted”, meaning that they are not visible when they are not lighted

3. Speed indicators.

3.1 The radar unit shall provide a dedicated patrol speed numeric display. In standby mode, this display shall display the patrol speed at the time of target locking. This window must be colored green for easy recognition, and its digits must be at least 0.4 inches tall.

3.2 The radar unit shall provide a dedicated strongest target speed numeric display. This display must be located on the left side of the display unit. Its digits must be at least 0.4 inches tall and red in color. In standby mode, this display shall be blank. Under no circumstances shall any target other than the strongest be presented in this display

3.3 The radar unit shall provide a locked target display. This display shall be colored yellow for easy recognition, and its digits must be at least 0.4 inches tall.

3.4 In stationary mode, the radar unit shall display target speeds from 15 mph (24 kph) to 200 mph (321 kph).

3.5 In opposite direction moving mode, the radar unit shall display patrol speeds from 12 mph (19 kph) to 80 mph (129 kph) when city mode is selected. When highway mode is selected, the radar unit shall display patrol speeds from 12 mph (19 kph) to 100 mph (160 kph).

3.6 In opposite direction moving mode, the radar unit shall display target speeds from 15 mph (32 kph) to a closing speed of 200 mph (321 kph).

4. Counting Unit Controls

4.1 All controls shall employ tactile feedback and be capable of operation with gloved hands.

4.2 The radar unit shall employ a push button for power on/off.

4.3 The radar unit shall provide a push button switch to initiate a self test. The self test shall be capable of being run while the radar unit is active or in standby and shall not effect locked speeds.

4.4 The radar unit shall provide a push button switch to cause a locked patrol speed to not be displayed while in standby.

4.5 The radar unit shall provide a push button switch to allow the operator to listen to audio when no target is present. This button shall also be used in conjunction with "UP" and "DOWN" arrow buttons to increase or decrease the Doppler audio volume. The Doppler audio volume shall have 10 selectable levels.

4.6 The radar unit shall provide a push button switch to allow the operator to select between moving and stationary modes.

4.7 The radar unit shall provide a range control button. This button shall also be used in conjunction with "UP" and "DOWN" arrow buttons to increase or decrease the sensitivity of the radar. A numerical indication of the setting shall be displayed in the Patrol window when the setting is being adjusted. The range control shall have 9 selectable levels.

4.8 The radar unit shall have an indicator displaying when it is blanking out the a suspected harmonic signal.

4.9 The radar shall have an "OK" indicator, informing the officer that the radar is functioning properly. The radar shall constantly check itself for errors. If an error is found, the radar shall indicate the error condition and cease displaying speeds until the error is corrected.

5. Remote Control Unit

5.1 The radar unit shall implement a remote control in which all controls shall employ tactile feedback. The remote control shall be capable of operation with gloves and shall function without regard to orientation.

5.2 For ease of operation, the functions that are included on the remote control shall be the minimum necessary for proper control of the radar. These consist of antenna selection, locking of target speeds and placing the transmitter into standby.

5.3 The remote control shall employ a cluster of three buttons to select the desired antenna. The buttons shall all be oriented in a row. The top button shall be used to activate the front antenna; the button shall be used to disable the transmitter (standby operation), and the bottom button shall be used to activate the rear antenna (if the radar system has two antennas).

5.4 The remote shall employ a momentary switch to lock target speeds. A single press on this key shall always cause the radar unit to store the current target speed in the readout's lock window.

5.5 For maximum reliability and to prevent the remote control from being lost, the remote shall be connected to the counting unit by a cable. The remote control's cable shall be connectorized on at least one end.

6. Antenna

6.1 The radar antenna shall operate on the standard K-band radar frequency of 24.150 GHz.

6.2 The antenna output power shall not exceed 50 milliwatts.

6.3 The antenna's radiated power density shall not exceed 2 mW/cm² at 5 cm.

6.4 The antenna shall be type-accepted in compliance with FCC Part 90.

6.5 The radar beam shall be circularly polarized, and the beam width between the half power points shall not exceed 13 degrees.

6.6 The Doppler detector shall utilize bonded-lead waveguide diodes, which allow inexpensive replacement in the event of a failure. Cat-whisker diodes are not acceptable. Beamlead diodes are also not acceptable due to their high repair costs.

6.7 The radar shall be no larger than 3.75 inches in diameter and 4.5 inches long