

**SHA311-SF3S(XX)** Concealed bumper mount antenna, 20-42 MHz B.W., 470-512 MHz

- Completely hidden-does not need any existing vehicle antennas
- Wide band with 20 to 42 MHz bandwidth depending on the vehicle
- Easy installation and tuning for optimum performance and durability in a wide variety of vehicles
- Applicable for both covert and overt law enforcement vehicles

Sinclair's patented concealed bumper mount antennas SHA311 series are designed for law-enforcement vehicles. The antennas are hidden inside the bumper and weatherproofed. The bumper covers must be plastic. Featuring a unique modular design that integrates all the components into a compact waterproof housing making it possible to install the antenna with minor modifications to the bumper. These antennas are mounted with simplicity and ease beneath the bumper cover thereby totally concealing the antenna from sight. A fine-tuning adjustment permits performance optimization during installation.

Attention: The antenna must be installed properly following the installation instruction. For some unique vehicles, please contact Sinclair sales representative or CSR for custom designs to achieve the optimum performance. Dual antennas (one in the front bumper and one in the rear) can be used for better Omni coverage. The antenna must be installed and weatherproofed properly following the installation instruction. The phasing harness and the joints to the two SHA311 antennas are not weatherproofed, so they must be placed inside the vehicle.



The antenna is integrated with a 24 feet RG58 feed cable. See below chart for ordering information:

Model Name	Connector
SHA311-SF3SNM	N-male, loose
SHA311-SF3SUM	UHF-male, loose
SHA311-SF3SQM	QMA-male, loose

Note: the connector is provided loose for ease of cable running inside the vehicle and will need to be crimped on by the customer. Other connectors and cable configuration options are available. Contact your Sinclair Sales Representative or Customer Service Representative for details.

### Application Notes

- Bandwidth is dependent upon the type of vehicle and mounting position.

Region	United States	Europe, Middle East and Africa	Caribbean and Latin America	Canada and rest of the world
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### Electrical Specifications

Frequency Range	MHz	470 to 512	
Bandwidth (Min-Max)	MHz	20 to 42	*1
Connector		Various options avail.	*2
Gain (nominal)	dBd (dBi)	unity (2.1)	
Input VSWR (max)		2:1	
Polarization		vertical	
Impedance	Ω	50	
Pattern		Omni- directional	
Average Input Power (max)	W	150	

### Notes

- \*1 : Depending on vehicle
- \*2 : See previous page for detail.
- \*3 : Maximum
- \*4 : included

### Mechanical Specifications

Width	in (mm)	3 (76)	
Depth	in (mm)	2 (51)	
Length/ Height	in (mm)	19.5 (495)	*3
Mounting hardware		#8-32 screws (4)	*4
Shipping dimensions	in (mm)	9x14x5 (229x356x127)	

### Ordering Information

Clips are supplied to temporarily secure the radiator to the bumper. VA250 glue should be used for added support (may be ordered separately Sinclair part number 6500295).

### Environmental Specifications

Temperature range	°F (°C)	-40 to +140 (-40 to +60)
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