



SM-2450CP/GPS



SM-2450CP

Also available in black!

These antennas are tough all around performers. The surface mount single band and dual band antennas are very low profile, perfect for mobile/video surveillance applications.

Models include a single band Circularly Polarized 2.4 GHz version, as well as dual band CP 2.4 GHz & GPS antennas. The dual band 2.4 GHz & GPS versions allow multiband operation for a variety of Surveillance/AVL applications. Separate cabling is provided for the GPS and 2.4 GHz interface.

The design uses a 5/8" feed thru (16 mm) for securing to the vehicle. Access to the underside of the body surface is required to complete the installation. The SM-2450CP is outfitted with 6 inches of RG-188 cable and SMA connector (152 mm). The SM-2450CP/1575 has 15 ft of RG-58 cable with a SMA connector for 2.4 GHz, 15ft RG-174/SMA for the GPS interface (4.5 meters). Other cable lengths and connectors are available, please consult factory for details.

The 2.4 GHz performance is provided by a low profile, yet high efficiency circularly polarized 4 dBic radiating

Surface Mount Video Antenna (Pat. Pnd.)

2.4 GHz CP for Video Surveillance

- Mounts easily to roof, trunk or bulkhead
- Available in both Single Band 2.4 GHz and Dual Band GPS & 2.4 GHz models
- Secure & low profile 3/4" high (19 mm), mounts to 5/8" hole (16 mm)
- Circularly polarized to minimize cross polarization

element. This maintains effective radiation across the desired frequency range.

GPS performance is 27 dB, with 5 dBi antenna gain. The GPS circuit has a low noise figure (2.0 dB max) with excellent filter characteristics. Power for the GPS amplifier (3.3 or 5 VDC) and signal is applied through the same cabling directly to the GPS circuit.

The antennas are enclosed in a weatherproof polycarbonate radome, and supplied with all mounting hardware and sealing gasket. The single band radome is 2.5" in diameter (64 mm), the dual band is 4.5" (114 mm).

Antenna Model Numbers

Model	Description
SM-2450CP	Surface mount RHCP 2.4 GHz
SM-2450CP/1575	Surface mount RHCP 2.4 GHz/GPS

Also available in 2450 Linear Polarized version. Low loss jumper cables available for 2.4 GHz video feed, consult factory.

Specifications

Frequency:

Video	2400 - 2485 MHz
GPS	1575.42 +/- 2 MHz

Video Gain: 4 dBic

GPS Gain: 27 dB, 5 dBi Antenna

VSWR: 2:1 max over range

Noise Figure: 2.0 dB max, 1.7 dB typical

Operating Temp: -40° to +85° C

Nominal Impedance: 50 ohms

Maximum Power: 2 Watts (Video Band)

Amplifier Bias: Dual 3.3/5 VDC +/- 10% (GPS)

Current: 20 mA max, 10 mA typical

SM-2450/1575 Cable: 2.4 GHz, 15ft RG-58 (4.5 m)
GPS, 15 ft RG-174 (4.5 m)

SM-2450 Cable: 6 inches RG-188 (152 mm)

Case:

SM-2450CP	2.5" dia. x .75" H (64 mm x 19 mm)
SM Dual Band	4.5" dia. x .95" H (114 mm x 24 mm)

Case Material: Acrylonitrile Styrene Acrylate

Mounting Stud:

SM-Dual Band	5/8" diameter, 3/4" long shaft (16 mm dia, 19 mm long)
SM-2450	5/8" diameter, 3/4" long shaft (16 mm dia, 19 mm long)

Mounting Depth: Mount up to 1/2" (12.7 mm) surface

Hardware: Nut, lockwasher, gasket included

Connector: SM-2450CP, SMA-Plug
SM-2450CP/GPS, SMA Plugs (2)
Consult factory for other configurations and connectors.