

Section 2

**BROADCAST ANTENNAS**

Updated 27 July 2009

**RS1 Rear Reflector Screens for FM Broadcast Dipoles**

Availability  
**BUILD**



When fitted to an FM radio broadcast dipole such as FMD-CPLP, FMD-CPHP or FMCPX, an RS1 rear screen restricts the radiation pattern emitted behind the antenna.

A rear reflector screen also produces an increase in forward gain. In the case of FMD-CPLP and FMD-CPHP for example :

- ⇒ Single Bay = 3.0 dBd
- ⇒ 2-Bay = 6.0 dBd
- ⇒ 3-Bay = 7.5 dBd
- ⇒ 4-Bay = 9.0 dBd

Rear screens can be fitted to various different model FM broadcast antennas. Enquire for further details.

It is important to note that where a rear screen is fitted to an existing antenna, then the antenna will need to be re-tuned.



FMD-CPHP with RS1 rear screen fitted



FMCPX array with RS1 rear screens

| SPECIFICATIONS              | RS1-GAL   | RS1-SS              |
|-----------------------------|---|---------------------|
| <b>Construction</b>         | Galvanised coated mild steel  | All stainless steel |
| <b>Screen Dimensions</b>    | 1.5 metre x 1.5 metre square  |                     |
| <b>Projected Area</b>       | Front : 0.297 m <sup>2</sup><br>Side : 0.039 m <sup>2</sup><br>(and add the antenna area)             |                     |
| <b>Wind Load at 160 kph</b> | 35.965 kg, 0.352 kN<br>(and add the antenna area)   |                     |
| <b>Mounting</b>             | Clamps for both the Rear Screen and Antenna are supplied to suit a round mast up to 50 mm in diameter |                     |

Sample radiation patterns of FMD-CPHP with RS1 rear screen fitted

