

**Section 2**

**BROADCAST ANTENNAS**

Updated 16 February 2011

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



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 :

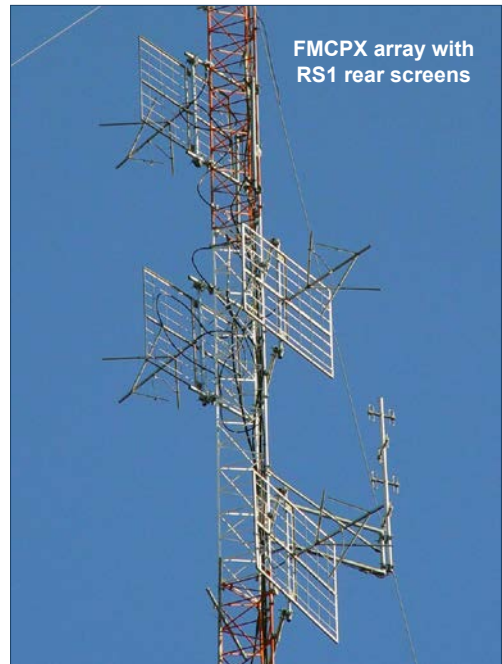
- ⇒ Single Bay = 3.0 dBd
- ⇒ 2-Bay = 6.0 dBd
- ⇒ 3-Bay = 7.5 dBd
- ⇒ 4-Bay = 9.0 dBd

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> Side : 0.039 m <sup>2</sup> (and add the antenna area)	
<b>Wind Load at 160 kph</b>	35.965 kg, 0.352 kN (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

