VHF Broadcast antenna type CRS-FDP-2

The BECIL make, VHF commercial band, vertically polarized, FM broadcast antenna type CRS-FDP-2 is a rugged and reliable antenna especially developed for community radio stations [CRS]. Considering the challenging tropical conditions of India and also in view of the fact that, the CRS is being operated by community members belonging to Civil Society and Educational institutions, the antenna construction have been ruggedized for trouble free working over a long period of time.

The antenna assembly consists of two numbers of folded dipoles with λ spacing between the elements. The power to both the dipoles is fed from the power divider. Entire assembly of power divider and the folded dipoles is mounted on a 4 meter length pipe of 3" diameter so that, the complete antenna assembly can be suitably fastened as a side mount on the self supported transmission tower or guyed mast.

The CRS-FDP-2 is of a rugged and reliable construction. The one piece folded dipole and power divider made of brass and copper incorporates a DC short to the body to minimize static interference. The antenna and power divider assembly is completely encapsulated to prevent moisture ingress. These antennas can be arranged in a variety of arrays in combination with appropriate power splitters to produce a wide range of radiation patterns. They are supplied as standard with 2.3 meter LMR400 UF, an ultra flex RF coaxial cable terminated with an 'N' type connector. The folded dipole is supported on either on a copper or stainless steel boom as indicated in the photo.

The folded antenna combines the best features of linear radiators, transmission lines and lumped impedances into a single device. Compared with a simple monopole or dipole antenna of the same length, the folded antenna provides the engineer with six more independent design variables. Thanks to these added variables, folded antennas are practical for lengths ranging from extremely short to extremely long, compared with a wavelength. Folded antennas offers the engineer exceptional design freedom compared with other antennas. It provides independent design variables than a simple linear radiator of the same length. They are, base load impedance, top load impedance, the differential mode characteristic impedance and the common mode current transformation ratio. In practice, extremely compact folded antennas can be fabricated.

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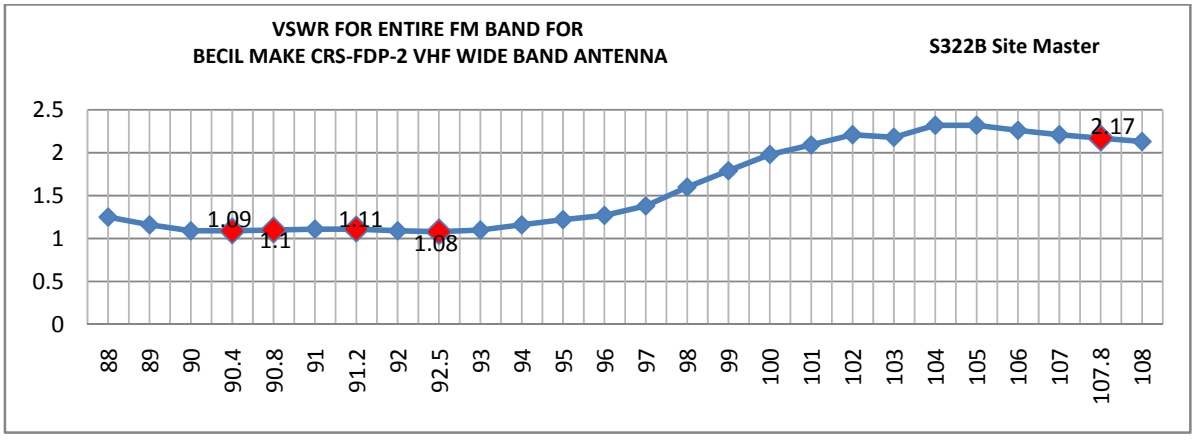
Features:

- *Wide Band*
- *Stainless Steel/copper Mounting Boom*
- *Copper Folded Dipoles*
- *Robust and low wind load*
- *Weather and corrosion resistance to suit tropical climate*
- *Durable and long lasting*
- *Factory tuned to the operating frequency*

Approximate specifications	
Frequency	88 MHz to 108 MHz
Tuned band width	20 MHz
Beam width V	80°
Beam width H	220°
Pattern	Offset circular
Gain	3.1 dB (4.9dBd)
Operating VSWR	<1.5:1
Weight	25 KG
Array length	5000 mm
Aperture	3100 mm
Spacing	1.0λ
Boom length	1200 mm
Boom diameter	40 mm
Connector	N, female
Impedance	50Ω
Power rating	1 kW continuous
Wind area	0.42 square meter
Lightning protection	DC grounded
Number of elements	Two
Mounting position	End



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