

FMV FMVMP

FM DIPOLE ANTENNA

1 dBd gain
88 to 108 MHz

Kathrein Scala Division FMV and FMVMP dipole antennas for FM radio transmission offer high performance, easy installation, and application flexibility. Dipoles may be stacked for more gain and higher power handling capacity as required. Arrays include power dividers and coax feeders, plus installation hardware.

Like all Kathrein Scala Division antennas, the FMV and FMVMP are made of the finest materials using state of the art electrical and mechanical designs, resulting in superior performance and long service life. All FMV and FMVMP antennas feature:

- Triple laminated dipole for superior strength.
- Anodized aluminum and stainless steel construction designed to survive extreme weather.
- Internal balun is sealed in a cast aluminum housing to prevent moisture ingress and ice damage.
- Entire antenna is at DC ground potential for superior resistance to lightning.

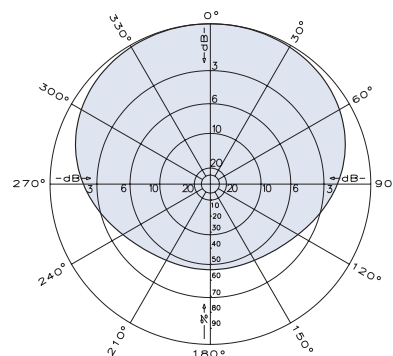
General Specifications:

Frequency	88 to 108 MHz
Bandwidth	88–98 MHz, 93–103 MHz. or 98–108 MHz
Impedance	50 ohms
VSWR	< 1.5:1
Polarization	Vertical
Maximum input power	
FMV	100 watts (at 50° C)
FMVMP	500 watts (at 50° C)
Connector	N female (other terminations are available for stacked arrays)
Wind survival rating*	120 mph (200 kph)
Mounting	For masts of 2.375 inch (60 mm) OD (using supplied hardware).

* Mechanical design is based on environmental conditions as stipulated in EIA-222-F (June 1996) and/or ETS 300 019-1-4 which include the static mechanical load imposed on an antenna by wind at maximum velocity. See the Engineering Section of the catalog for further details



FMV-1
FMVMP-1



Azimuth pattern



10480-C

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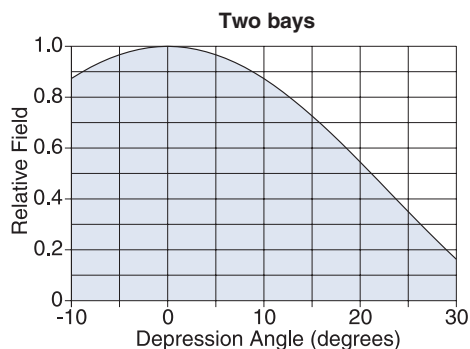
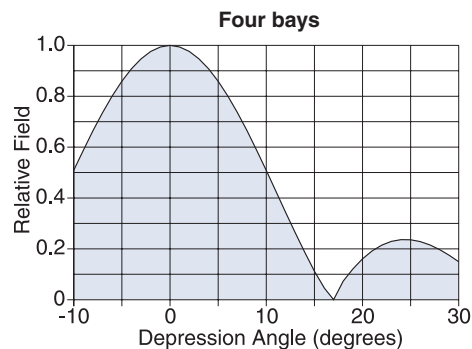
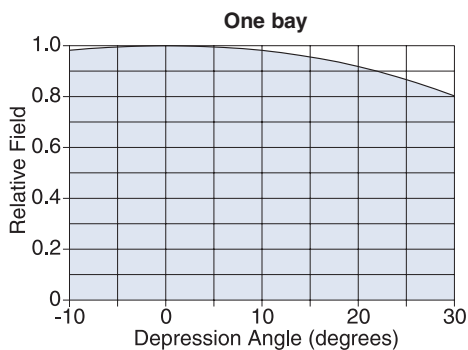
Specifications:

Model	Frequency MHz	Gain dBd	Weight lb (kg)	Power Gain	Equivalent Dimensions	Flat Plate Area	Number of Antennas
FMV-1	88–98	1	6 (2.7)	1.26	56 x 25 inches (1422 x 635 mm)	0.69 ft ² (0.0646 m ²)	1
	93–103	1	6 (2.7)	1.26	53 x 24 inches (1347 x 610 mm)	0.66 ft ² (0.061 m ²)	1
	98–108	1	6 (2.7)	1.26	51 x 23 inches (1422 x 585 mm)	0.64 ft ² (0.059 m ²)	1
FMV-2	88–98	3.5	18 (8.2)	2.24	166 x 25 inches (4216 x 635 mm)	1.64 ft ² (0.153 m ²)	2
	93–103	3.5	18 (8.2)	2.24	158 x 24 inches (4014 x 610 mm)	1.58 ft ² (0.146 m ²)	2
	98–108	3.5	18 (8.2)	2.24	151 x 23 inches (3836 x 585 mm)	1.51 ft ² (0.14 m ²)	2
FMV-3	88–98	4.9	29 (13.2)	3.10	276 x 25 inches (7010 x 635 mm)	2.56 ft ² (0.237 m ²)	3
	93–103	4.9	29 (13.2)	3.10	263 x 24 inches (6681 x 610 mm)	2.35 ft ² (0.218 m ²)	3
	98–108	4.9	29 (13.2)	3.10	251 x 23 inches (6376 x 585 mm)	2.34 ft ² (0.217 m ²)	3
FMV-4	88–98	6	43 (19.5)	3.98	386 x 25 inches (9804 x 635 mm)	3.48 ft ² (0.323 m ²)	4
	93–103	6	43 (19.5)	3.98	368 x 24 inches (9348 x 610 mm)	3.32 ft ² (0.308 m ²)	4
	98–108	6	43 (19.5)	3.98	351 x 23 inches (8916 x 585 mm)	3.18 ft ² (0.295 m ²)	4
FMVMP-1	88–98	1	6 (2.7)	1.26	56 x 33 inches (1422 x 838 mm)	0.69 ft ² (0.064 m ²)	1
	93–103	1	6 (2.7)	1.26	53 x 27.5 inches (1347 x 699 mm)	0.72 ft ² (0.067 m ²)	1
	98–108	1	6 (2.7)	1.26	51 x 26 inches (1422 x 661 mm)	0.66 ft ² (0.061 m ²)	1
FMVMP-2	88–98	3.5	23 (10.5)	2.24	166 x 33 inches (4216 x 838 mm)	1.7 ft ² (0.157 m ²)	2
	93–103	3.5	23 (10.5)	2.24	158 x 31.5 inches (4014 x 800 mm)	1.62 ft ² (0.15 m ²)	2
	98–108	3.5	23 (10.5)	2.24	151 x 30 inches (3836 x 762 mm)	1.55 ft ² (0.144 m ²)	2
FMVMP-3	88–98	4.9	34 (15.5)	3.10	276 x 33 inches (7010 x 838 mm)	2.61 ft ² (0.243 m ²)	3
	93–103	4.9	34 (15.5)	3.10	263 x 31.5 inches (6681 x 800 mm)	2.49 ft ² (0.232 m ²)	3
	98–108	4.9	34 (15.5)	3.10	251 x 30 inches (6376 x 762 mm)	2.39 ft ² (0.222 m ²)	3
FMVMP-4	88–98	6	48 (21.8)	3.98	386 x 33 inches (9804 x 838 mm)	3.52 ft ² (0.328 m ²)	4
	93–103	6	48 (21.8)	3.98	368 x 31.5 inches (9348 x 800 mm)	3.37 ft ² (0.313 m ²)	4
	98–108	6	48 (21.8)	3.98	351 x 30 inches (8916 x 762 mm)	3.22 ft ² (0.299 m ²)	4

All specifications are subject to change without notice

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Elevation patterns

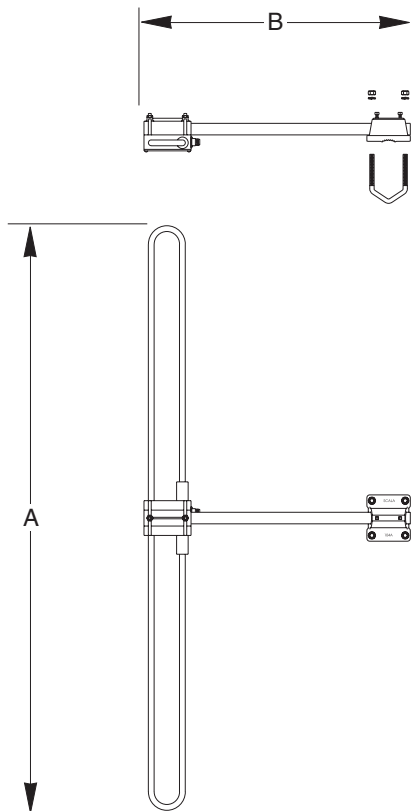


Order Information:

Model	Description
FMV	88–98 MHz antenna
FMV	93–103 MHz antenna
FMV	98–108 MHz antenna
FMVMP	88–98 MHz antenna
FMVMP	93–103 MHz antenna
FMVMP	98–108 MHz antenna

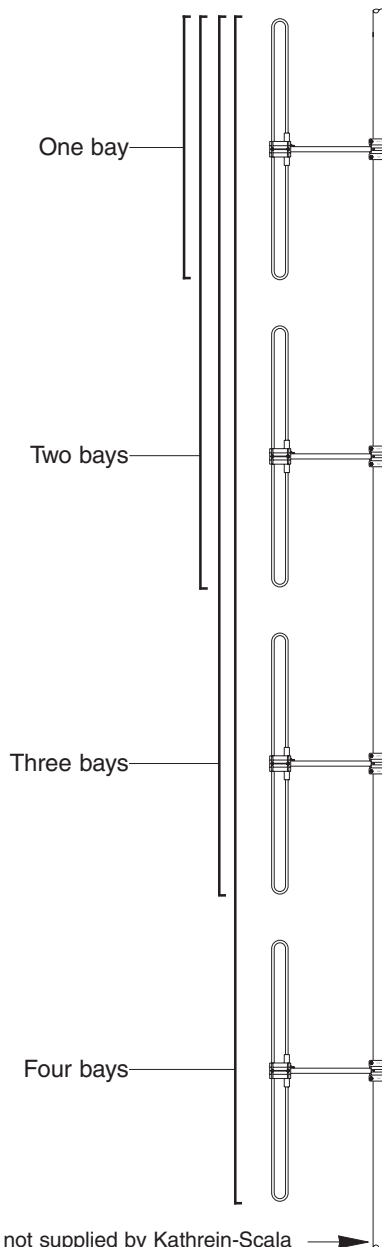
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Dimensions:

		A	B
FMV	88–98 MHz	56 inches (1422 mm)	25 inches (635 mm)
	93–103 MHz	53 inches (1347 mm)	24 inches (610 mm)
	98–108 MHz	51 inches (1422 mm)	23 inches (585 mm)
FMVMP	88–98 MHz	56 inches (1422 mm)	33 inches (838 mm)
	93–103 MHz	53 inches (1347 mm)	31.5 inches (800 mm)
	98–108 MHz	51 inches (1422 mm)	30 inches (762 mm)



Mast not supplied by Kathrein-Scala →

Installation note:

In order to obtain proper impedance matching (minimum VSWR) and radiation patterns as shown the FMV and FMVMP antennas must be attached to a 2.375 inch (60 mm) OD mast that extends at least 12 inches (305 mm) above and below the antenna dipoles.