

**TVO series**  
OMNIDIRECTIONAL ANTENNA  
-3, 0, or 3 dBd gain  
54 to 216 MHz (Channels 2–13)

The Kathrein Scala Division TVO is a ruggedly built, horizontally polarized VHF-TV transmit antenna with an omnidirectional pattern.

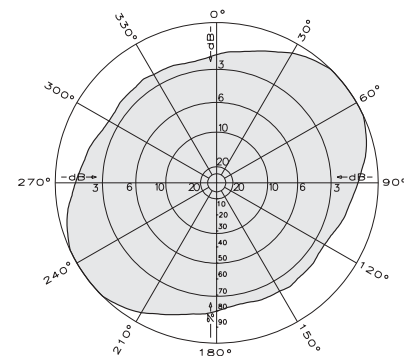
Like all Kathrein Scala Division antennas, the TVO is made of the finest materials using state of the art electrical and mechanical designs resulting in superior performance and long service life.

The TVO is available as a single bay antenna or in vertically stacked arrays for additional gain.



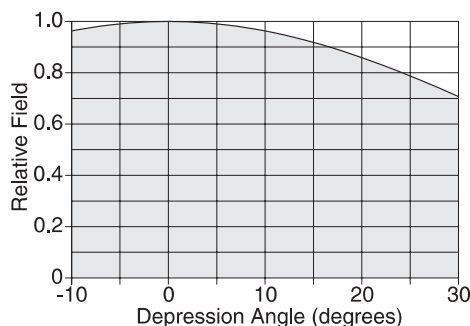
**Specifications:**

Frequency range	Any specified VHF-TV channel 54 to 216 MHz	
Gain	TVO (one bay) -3 dBd TVO-2 (two bays) 0 dBd (½ spacing) TVO-4 (four bays) 3 dBd (½ spacing)	
Impedance	50 or 75 ohms	
VSWR	<1.3:1	
Polarization	Horizontal	
Input power (per bay)	50 Ω model	250 watts
	75 Ω model	100 watts
Azimuth pattern	Omni	
Connector	N female	
Weight (approx.)	TVO (one bay) 9 lb (4.1 kg) TVO-2 (two bays) 22.6 lb (10.3 kg) TVO-4 (four bays) 50.6 lb (23 kg)	
Height	TVO (one bay) 18 inches (458 mm) TVO-2 (two bays) See reverse TVO-4 (four bays) See reverse	
Equivalent flat plate area	1.71 ft <sup>2</sup> (0.159 m <sup>2</sup> ) per bay (maximum)	
Wind survival rating*	120 mph (200 kph)	
Mounting	For masts of 2.375 inches (60 mm) OD.	

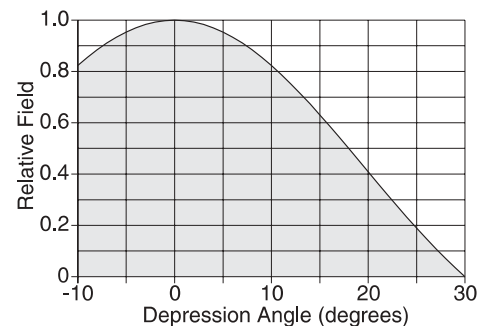


Azimuth pattern

\* 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.



Elevation pattern (two bays)

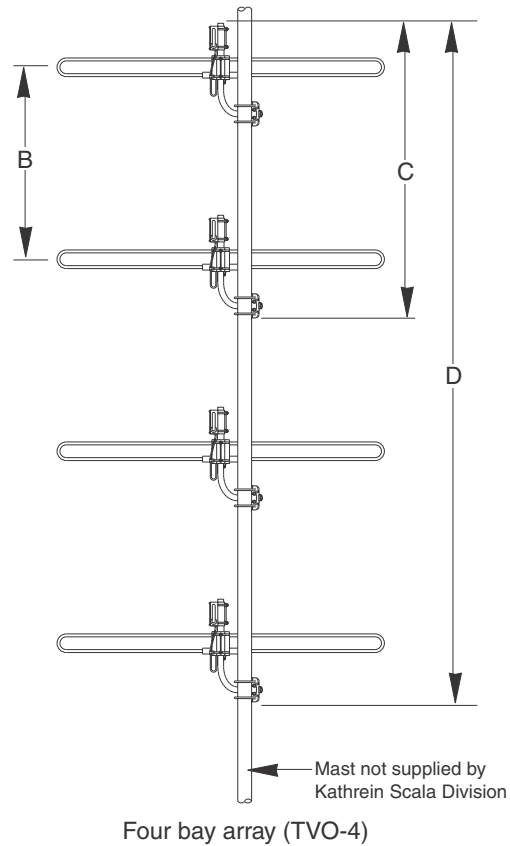
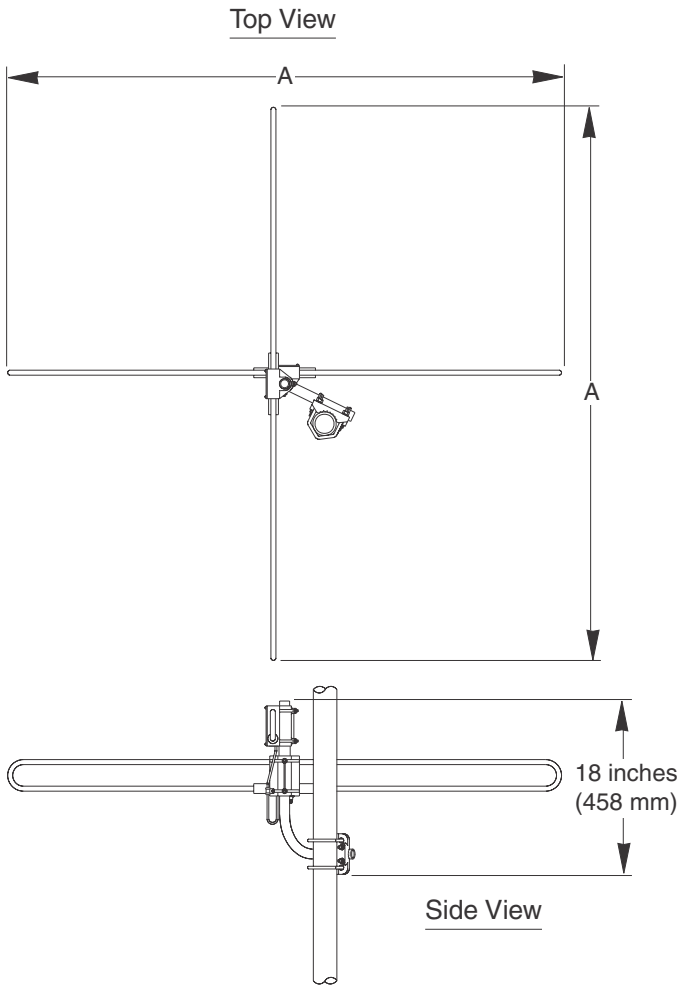


Elevation pattern (four bays)



10274-B

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Dimensions: Frequency range	A inches (mm)	B inches (mm)	Two bays C	Four bays D
54–60 MHz	96 (2439)	104 (2642)	122 (3099)	329 (8357)
60–66 MHz	87.5 (2223)	94 (2388)	112 (2845)	299 (7595)
66–72 MHz	79.5 (2020)	86 (2185)	104 (2642)	275 (6985)
76–82 MHz	69.5 (1766)	75 (1905)	93 (2363)	242 (6147)
82–88 MHz	65 (1651)	70 (1778)	88 (2236)	227 (5766)
174–180 MHz	31 (788)	33 (839)	51 (1296)	116 (2947)
180–186 MHz	30 (750)	32 (813)	50 (1270)	113 (2871)
186–192 MHz	29 (737)	31 (788)	49 (1245)	110 (2794)
192–198 MHz	28 (712)	30 (762)	48 (1220)	107 (2718)
198–204 MHz	27.5 (699)	29 (737)	47 (1194)	104 (2642)
204–210 MHz	26.5 (674)	28 (712)	46 (1169)	101 (2566)
210–216 MHz	26 (661)	28 (712)	46 (1169)	101 (2566)

**Order Information:**

Contact Kathrein Scala Division Customer Service for detailed order information.

All specifications are subject to change without notice