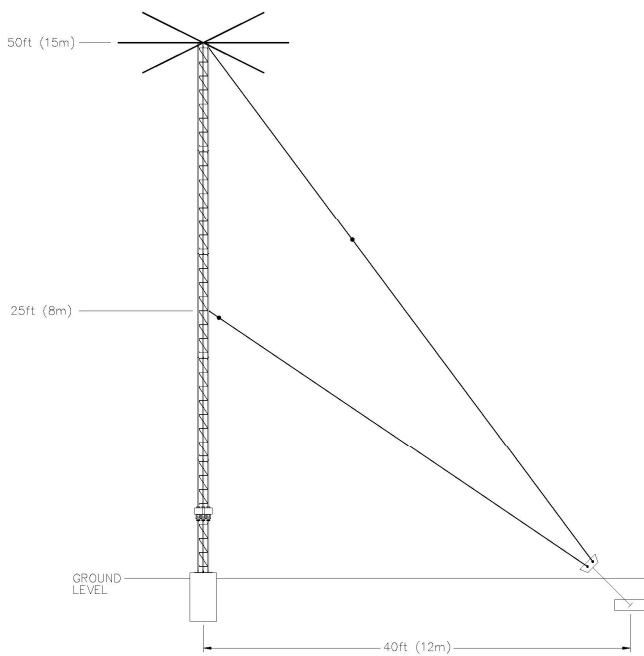# Southern Avionics Company

50 ft. Mast Antenna
Part Number: SLF10002

SPECIFICATION SHEET

5055 Belmont, Beaumont, TX 77707
Phone +409.842.1717
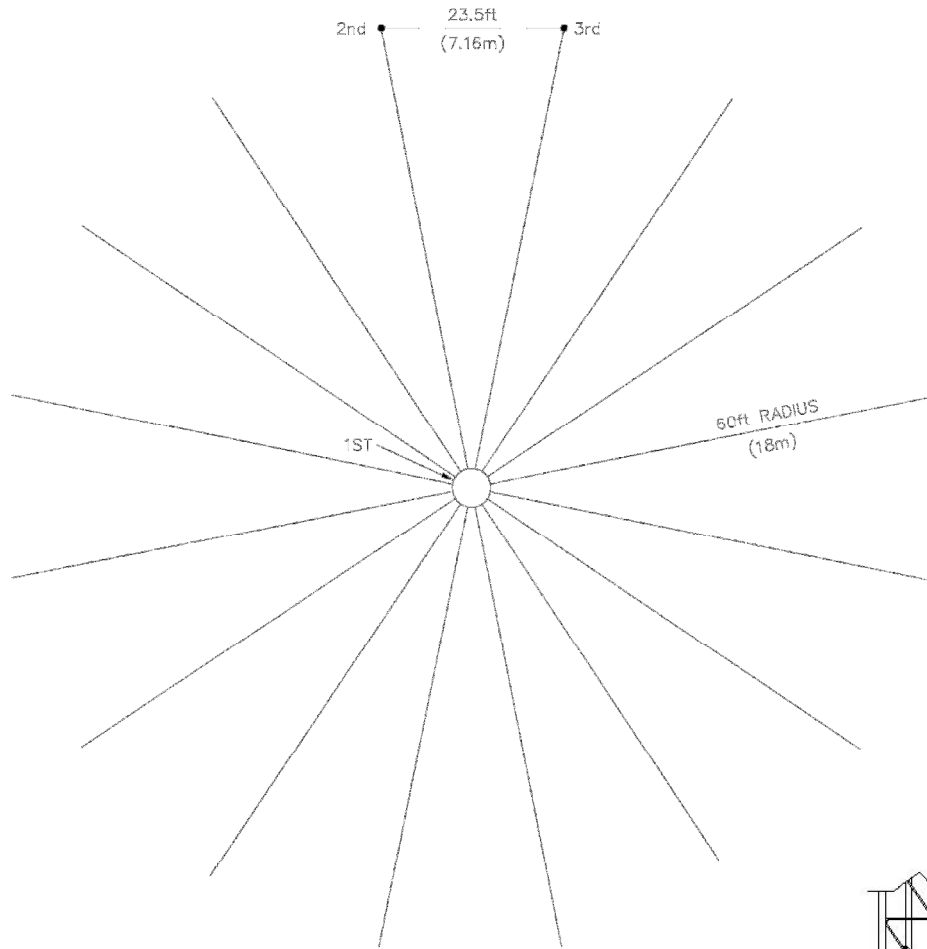Fax +409.842.2987
sales@southernavionics.com

FEATURE	SPECIFICATION
Resistance	2-30 Ohms, 10 Ohms typical
Max Power Rating	1000 Watts PEP / 250 Watts carrier power at 100% amplitude modulation
Capacitance	376 pF standard
Frequency of Operation	190-650 kHz
Polarization	Vertical
Pattern	Omni-directional
Antenna Gain	-10 dBi@ 300 kHz
Electrical Length	33.6 ft. (10m)
Wind Rating	130 mph (209km/hr)
Height	50 ft. (15m)
Weight	362 lbs. (164kg)
Sections	Four (4) 10 ft. (3m) sections, two (2) 5 ft. (1.5) RF insulator sections
Finish	Galvanized steel to ASTM A123
Temperature Range	-50ºC - +70ºC
Base Pier Rating	14000 lbf. (62275N)
16 Radial Ground System	1100 ft. (335m) of #10 AWG soft-drawn copper wire, 17 6 ft. (2m) ground rods, ground clamps, associated hardware
Optional Equipment	Installation Kit, Antenna Simulator, Enhanced Counterpoise SLF87720, Obstruction LED kit SLJ00197

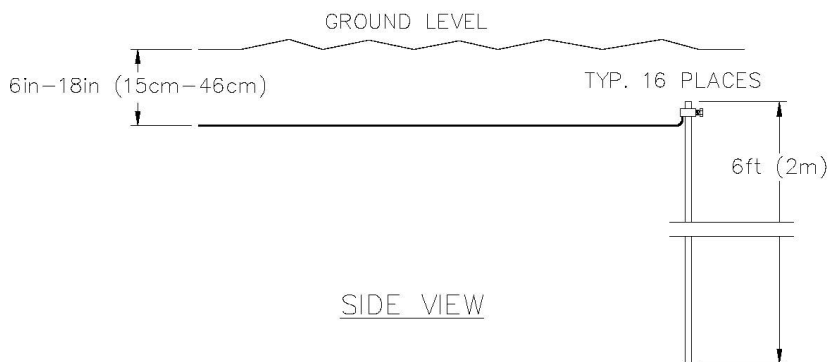*Information provided is subject to change without notice

Mechanical:
The antenna is made of 4, 10 ft. (2m) galvanized steel sections configured on 12.5 in (32cm) equilateral triangular design with electrically welded continuous steel "zigzag" cross bracing. 2, 5 ft. (1.5m) RF insulator sections are also provided. The lattice tower sections are designed in accordance with U.S. National Standard ANSI/EIA-222 F.
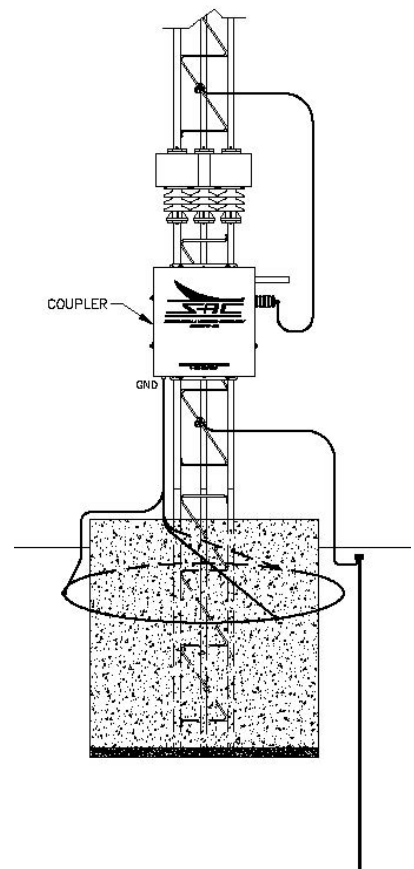
Three (3) high voltage insulators are used to isolate the radiator from the ground. Rain shields are included to prevent water sheeting during heavy rain. Three top-loading guy wires are used to develop and enhance antenna capacitance.
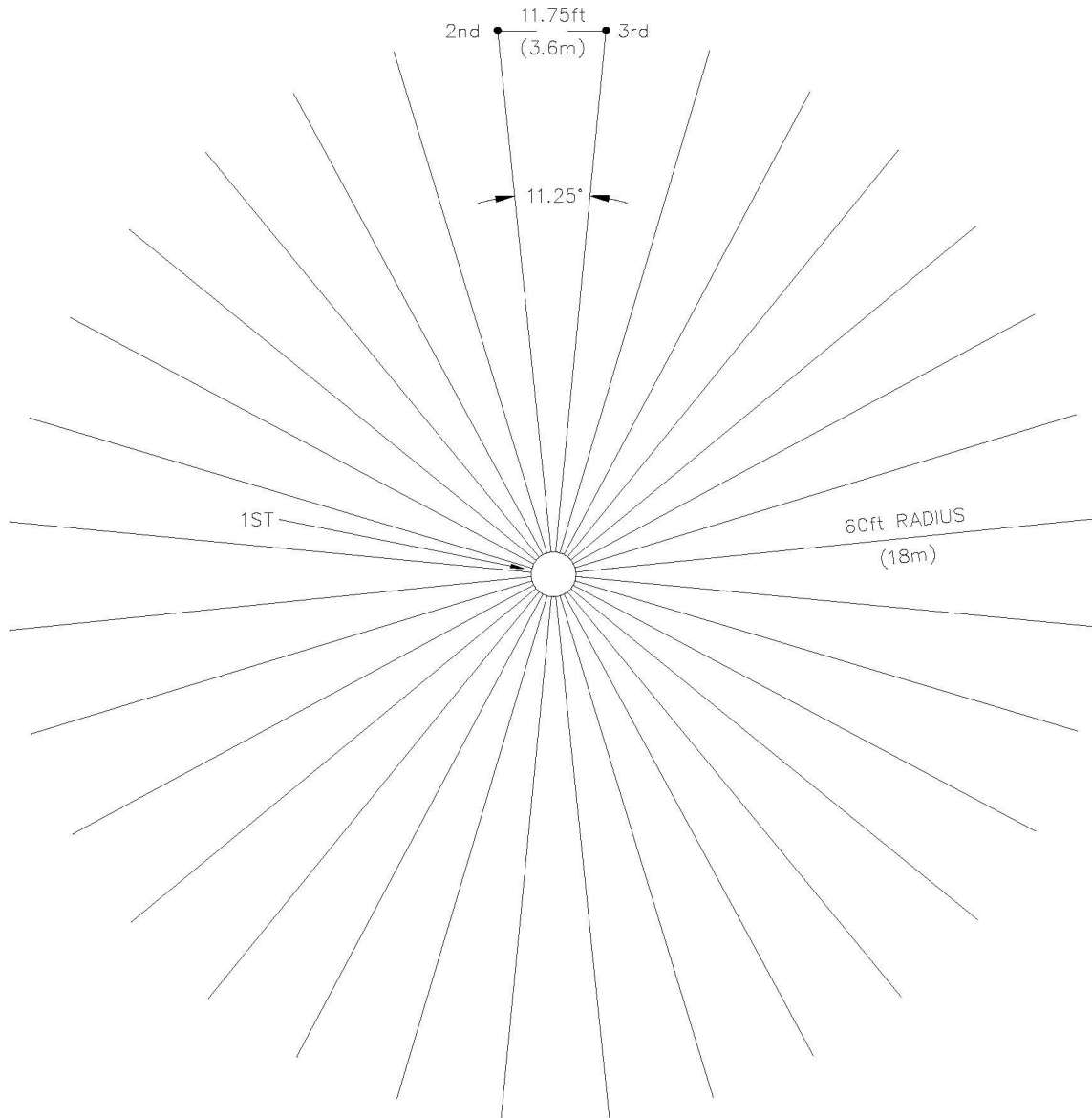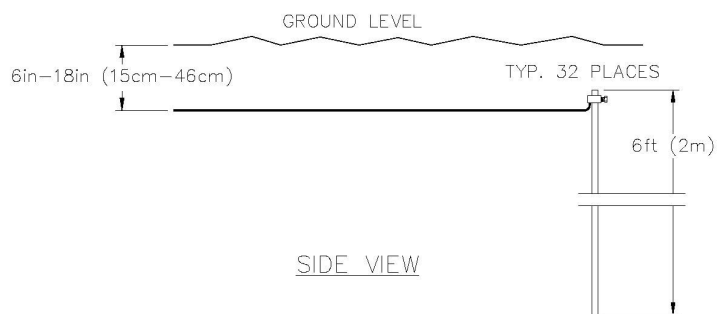
2nd • 23.5ft
(7.16m) • 3rd

1ST

60ft RADIUS
(18m)

16 Radial Counterpoise Diagram

GROUND LEVEL

6in–18in (15cm–46cm)

TYP. 16 PLACES

6ft (2m)

SIDE VIEW

COUPLER

GND

2nd • ——11.75ft—— • 3rd
(3.6m)

11.25°

1ST

60ft RADIUS
(18m)

32 Radial Counterpoise Diagram

GROUND LEVEL

6in–18in (15cm–46cm)

TYP. 32 PLACES

6ft (2m)

SIDE VIEW

Application:

Sixteen (16) radials are generally adequate for "normal" soil, but in cases of poor ground conductivity, the number of radials can be doubled by using option SLF87720 which will double the number of radials to 32.