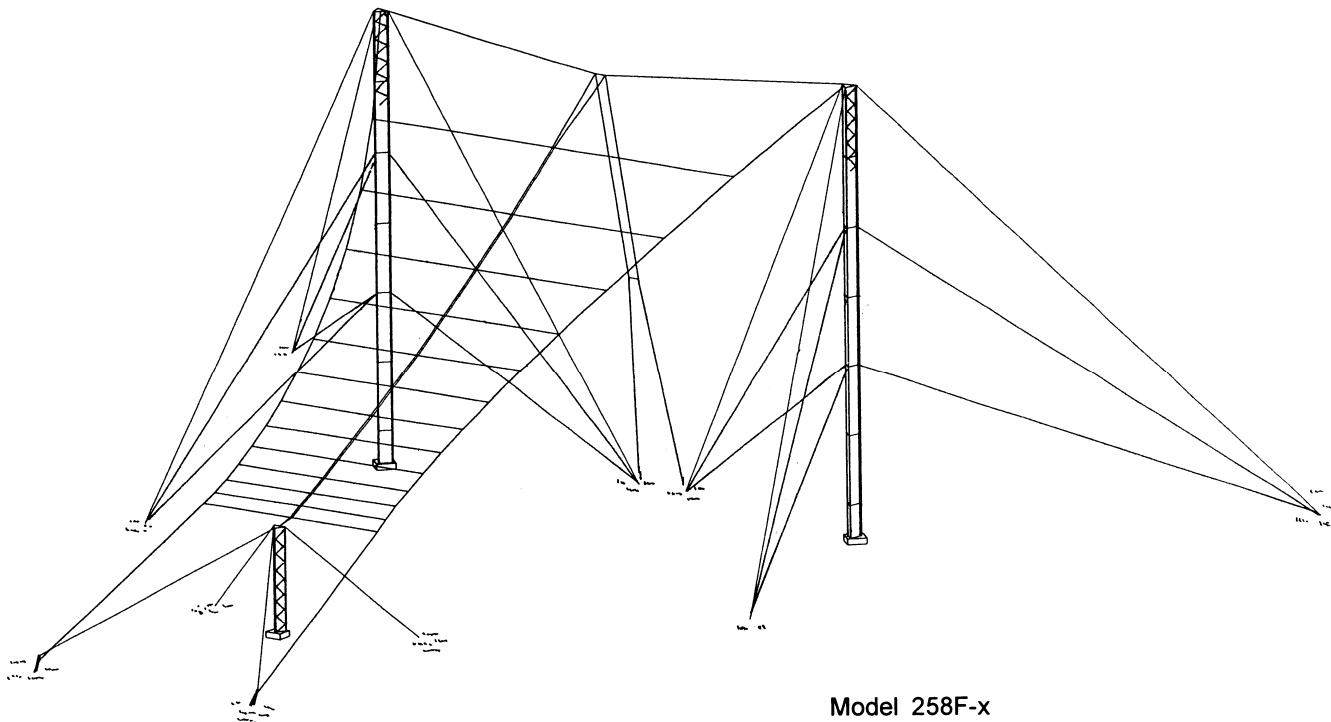




HF Log-Periodic Antenna

258F-x

- ★ For Reliable Communications on Medium Ranges Circuits
- ★ Midium Gain Over A Broad Bandwidth
- ★ Low Take-Off Angle Even Over Poor Ground



Model 258F-x

The 258F is an uni-directional horizontal polarization log-periodic antenna. It is characterized by the radiation pattern with a medium take-off angle necessary for a midium distance telecommunication antenna. It is best for a communication distance of some 100Km or more and from 500 to 5000Km in the frequency range of 15MHz or more. The front gain has a maximum point around 30° of the take-off angles at the frequency of 10MHz or more, and is 10 to 12dBi. The maximum gain at the frequency of 25MHz or less resides around 30° of the take-off angles. Within the frequency range, the impedance is constant and 2:1 maximum of VSWR is assured. As shown in figure 2, half wave length radiation elements are arranged in parallel above the ground spreading between a high height of tower and a low height of tower under given design conditions.

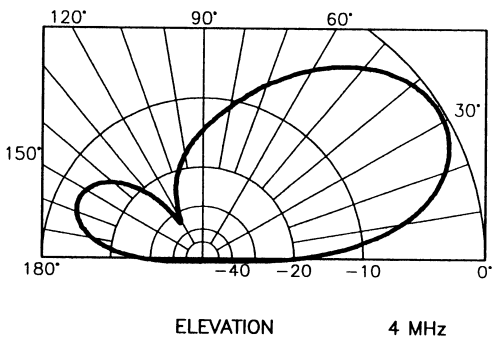
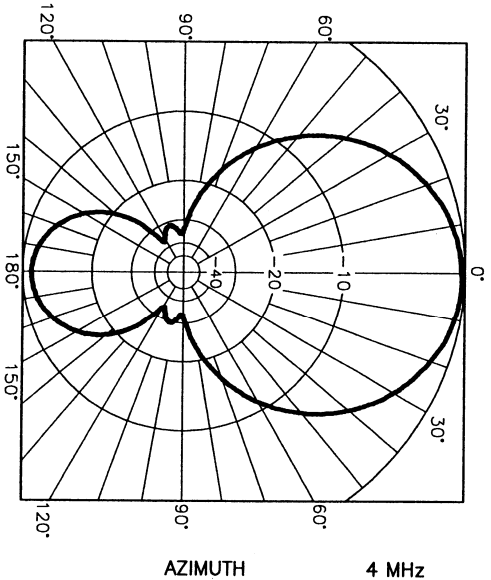
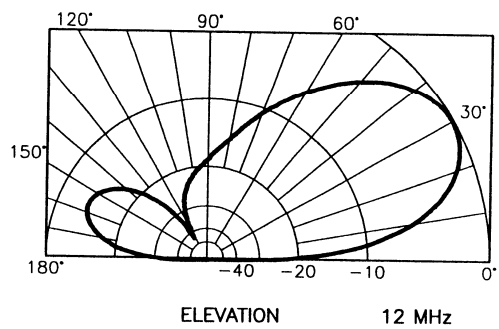
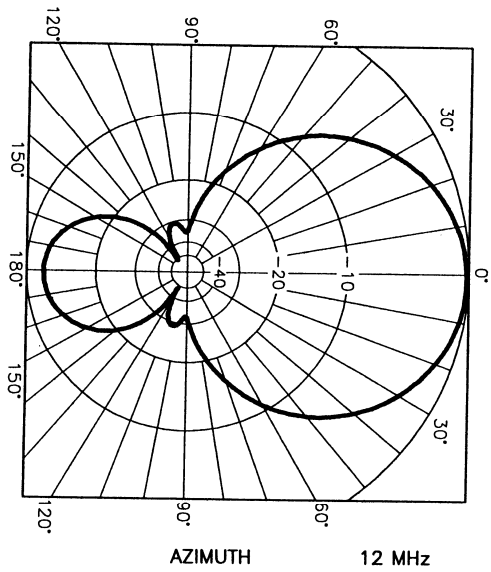
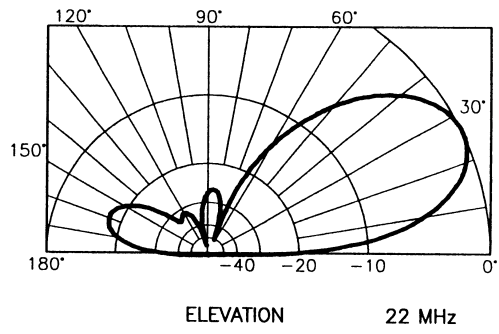
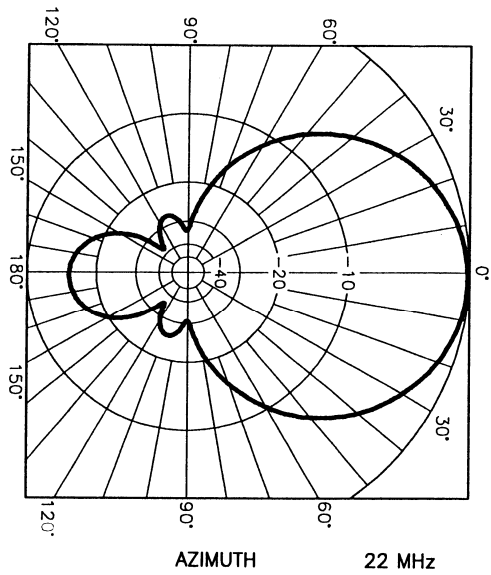
The catenary section and the radiation element curtain section are prefabricated in order to keep the configuration of a group of the radiation elements. The tower units of 258F is provided in the kit form unless otherwise in a special contract requirement. The high frequency power withstand of the 258F is 10kW average and 20kW PEP. The balun in the input section is prepared in compliance with the necessary power. The main specifications for the antenna are as follows.

SPECIFICATION

Model No.	258F-1	258F-2	258F-3
Frequency Range	3~30 MHz	4~30 MHz	6~30 MHz
Forward Gain	11 ~12 dBi	11 ~12 dBi	11 ~12 dBi
Azimuth Half Power Beam Width	65~75°	65~75°	65~75°
Front to Back Ratio, Nominal	14 dB	14 dB	14 dB
VSWR, Maximum	2:1	2:1	2:1
Tower Height	42 m	32 m	22 m
Dimensions Length x Width	110 x 125 m	85 x 95 m	61 x 70 m
Wind Loading Capability	45 m/s	45 m/s	45 m/s
System Net Weight	2600 kg	1950 kg	1650 kg

Note: Use an appropriate sub-model number when specifying or ordering a system.

258F-x-1. Receive or 100W Transmit	Type -N- Female
258F-x-2. Transmit, 1 kW Ave./2 kW PEP	Type -N- Female
258F-x-3. Transmit, 5 kW Ave./10 kW PEP	Type 7/8" EIA. Female or LC
258F-x-4. Transmit, 10 kW Ave./20 kW PEP	Type 1-5/8" EIA. Female



Note: Azimuth Patterns at elevation angle of beam maximum.

Radiation Patterns: Uni-Directional Log-Periodic Antenna, 258F-2

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