

Radio-Antenna

MX-1287/GRN

ANTENNA KIT

FUNCTIONAL DESCRIPTION

The MX-1287/GRN comb antenna is a special type of linear end-fire antenna array, employing vertical elements which are connected and phased by means of a non-resonant transmission line. This type array is used at loran shore transmitting installations to improve reception of the ground wave signal from the paired loran transmitter. Such improvement is effected by materially narrowing the directivity pattern of reception, resulting in a considerable improvement in antenna signal to noise ratio. Reliable loran synchronization can often be insured between master and slave stations where ground wave synchronization is impossible or extremely difficult with a single vertical antenna. The antenna is intended for use with the loran frequencies of 1750, 1850, and 1950 kilocycle (kc).

No field changes in effect at time of preparation (26 June 1959).

EQUIPMENT REQUIRED BUT NOT SUPPLIED

(18) Antenna Support Poles, complete w/ hardware insulators and posts, (1) Ground System, (19) Unit Mounting Posts, (1) Connecting Cable and Fittings.

ELECTRICAL AND MECHANICAL CHARACTERISTICS

INPUT IMPEDANCE: 52 ohms.
OPERATING FREQUENCY RANGE: 1.75 mc to 1.95 mc.

MANUFACTURER'S OR CONTRACTOR'S DATA

Maryland Electronic Mfg Corp., College Park, Maryland.
Contract Tcg-38120, dated 5 June 1950.
Contract Tcg-38317, dated 28 December 1950.

TUBE AND/OR CRYSTAL COMPLEMENT

No Electron Tubes or Crystals used.

REFERENCE DATA AND LITERATURE

U.S. COAST GUARD: Technical Manual for Loran Comb Antenna Array MX-1287/GRN.

TYPE CLASSIFICATION
DESIGN COGNIZANCE U.S. COAST GUARD
PROCUREMENT COGNIZANCE NO. 364 (Coast Guard)
STOCK NO.

SHIPPING DATA

NUMBER OF BOXES	CONTENTS AND IDENTIFICATION	VOLUME (Cu.Ft.)	OVERALL DIMENSIONS (inches)	WEIGHT PACKED (lbs.)
1	Technical Box J-466/GRN Including:	2.8	11 X 19 X 22-3/4	60
3	Technical Manual			
36	Watertight Connectors (for 35 & 65 ft Cable)			
1	Watertight Connector (Spare)	9.9	21-3/4 X 26 X 30	175
1	Plug N.T. 49195 (Spare)			
18	Antenna Couplers CU-287/GRN			
*6	Armored Cable w/Connectors Assembled RG-8/U (65' 1g)	18.4	21-1/2 X 37-1/2 X 39	340
**6	Armored cable w/Connectors Assembled RG-8/U (65' 1g)	18.4	21-1/2 X 37-1/2 X 39	340
***5	Armored cable w/Connectors Assembled RG-8/U (65' 1g) and one (35, 1g)	18.4	21-1/2 X 37-1/2 X 39	323

*NOTE: The connectors are shipped in Box No. 3.

**Connectors are shipped in Box No. 4.

***Connectors are shipped in Box No. 5.

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EQUIPMENT SUPPLIED DATA

QUANTITY PER EQUIPT	NAME AND NOMENCLATURE	OVERALL DIMENSIONS (inches)	WEIGHT (lbs.)
18	Antenna coupler CU-287/GRN	6-3/8 X 7-1/8 X 8-1/2	4
1	Terminal Box J-466/GRN	3-13/32 X 7-1/8 X 8-1/2	3-1/2
17	Interconnecting Cable	1-3/4 dia X 720 lg	33
1	Interconnecting Cable	1-3/4 dia X 420 lg	18
1	Plug N.T. 49195	3/4 dia X 30 lg	3 oz
1	Watertight Connector Crouse-Hinds Type OGB-297	1-5/8 dia X 2-1/4	10 oz

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1.1 MX-1287/GRN: 3