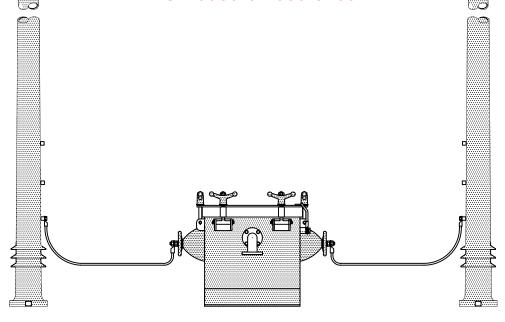


# SPECIALISTS FOR HIGH FREQUENCY

# HF Twin 18Ft Whip Antenna System OE-418A(V)1/SRC

NSN 5985-01-383-8463



### FFATURES.

- POWER HANDLING TO 10KW
- MINIMUM MAINTENANCE
- MEETS MIL-A-29518(EC)
- HIGH RELIABILITY
- SHIPBOARD APPLICATIONS
- BROADBAND
- WEATHERPROOF

# OE-418A(V)1/SRC

THE OE-418A(V)1/SRC ANTENNA GROUP IS A TWIN WHIP ANTENNA SYSTEM WHICH PROVIDES BROADBAND COVERAGE IN THE 10-30 MHz FREQUENCY RANGE FOR SHIPBOARD TRANSMITTING AND RECEIVING SYSTEMS.

THE ANTENNA SYSTEM CONSISTS OF TWO 18 FOOT SPUN ALUMINUM ANTENNAS, AN IMPEDANCE MATCHING NETWORK AND AN INTERCONNECTING WIRE-ROPE FEED ASSEMBLY. THE SYSTEM IS INTENDED FOR USE ON EITHER THE CG OR DDG CLASS NAVAL VESSELS. FOR THE CG CLASS VESSELS, THE IMPEDANCE MATCHING NETWORK WOULD BE THE CU-2241C/SRC AND THE ANTENNA IS AN AS-3770B/U. FOR THE DDG CLASS VESSEL THE MATCHING NETWORK WOULD BE THE CU-2416A/SRC WITH THE ANTENA AS-3773B/U. THE ANTENNAS USED IN THE SYSTEM ARE SELF SUPPORTING TAPERED ALUMINUM TUBES WITH A FIBREGLASS INSULATOR AND MOUNTING BASE.

THE IMPEDANCE MATCHING NETWORK CONTAINS VARIABLE INDUCTOR/CAPACITOR TO ENABLE OPTIMAL VSWR CHARACTERISTICS OVER THE ENTIRE 10-30 MHz BAND. A VSWR OF 3:1 OR LESS ON 50 OHMS CAN BE ACHIEVED OVER THE ENTIRE FREQUENCY BAND. THE SYSTEM HAS BEEN QUALIFIED TO MIL-S-901C FOR SHOCK, MIL-STD-167 FOR TYPE 1 VIBRATION AND ALL THE SERVICE CONDITIONS OF MIL-E-16400.

# QUICK REFERENCE DATA

# **ELECTRICAL CHARACTERISTICS**

FREQUENCY	10-30 MHz
IMPEDANCE	50 OHMS
INPUT CONNECTOR	1-5/8 EIA FLANGE (OR CUSTOMER ORDER)
OUTPUT	BOWL INSULATOR WITH 1/2-13 UNC-2A THREADED ROD
POLARIZATION	VERTICAL
VSWR	3:1 MAXIMUM FOR TYPICAL INSTALLATIONS
POWER HANDLING	10KW AVERAGE
AZIMUTH COVERAGE	OMNIDIRECTIONAL

## MECHANICAL CHARACTERISTICS

ANTENNA OVERALL LENGTH	AS-3773B/U- 218 IN ± 1 IN (554 CM ± 2.5 CM) AS-3770B/U- 218 IN ± 1 IN (554 CM ± 2.5 CM)
ANTENNA WEIGHT	AS-3773B/U - 140 LBS EA (63.5 KG) AS-3770B/U- 78 LBS EA (31.5 KG)
MATCHING NETWORK ENCLOSURE	CG CLASS SHIP ENCLOSURE- 28 IN (71.1 CM) LG 20 IN (50.8 CM) HIGH, 28 IN (71.1 CM) WIDE 110 LBS (49.8 KG) DDG CLASS SHIP ENCLOSURE-30 IN (76.2 CM) LG 13 IN (33 CM) HIGH, 13 IN (33 CM) WD 80 LBS (36.2 KG)
MOUNTING (EACH ANTENNA)	AS-3773B/U - BASE FLANGE WITH 8 HOLES .690 IN (1.75 CM) DIAMETER EQUALLY SPACED ON A 10.750 IN (27.30 CM) DIA BOLT CIRCLE AS-3770B/U - BASE FLANGE WITH 8 HOLES .530 IN (1.34 CM) DIAMETER EQUALLY SPACED ON A 7.25 IN (18.4 CM) DIA BOLT CIRCLE
MOUNTING (MATCHING NETWORK)	CG CLASS SHIP ENCLOSURE- TOP FLANGE WELDED TO TOPSIDE OF CUSTOMER FURNISHED PLATFORM DDG CLASS SHIP ENCLOSURE- 6 MOUNTING HOLES .53 IN (1.34 CM) DIAMETER
SYSTEM CONFIGURATION	CG SHIP- ANTENNAS SPACED 96 IN (243.8 CM) APART DDG SHIP- ANTENNAS SPACED 10 FT (3.04 M) APART

