



917ISPCX2 2-STACK COMBINER KIT



DESCRIPTION:

The **917ISPCX2** is a 2-Way Combiner for stacking two of the **917-ISP** antennas. When stacked at 27 inches apart in a vertical polarization, the stacking kit will increase the forward gain by 3.0 dB, netting a total forward gain of 20 dBi. Note— the beamwidth is about 1/2 the width of a single **917-ISP**. When using the kit, pointing accuracy becomes very important for best usage.

This kit also can be used for vertical stacking when Horizontal Polarization is desired. When Vertically stacked the Azimuth beamwidth is the same as one **917ISP**. It is very important to use the same polarization at each antenna point.



917ISPCX2 ASSEMBLY MANUAL

Tools needed for the assembly: 7/16 socket or wrench



Attach the mounting plate to your vertical mast using (2) U-bolts, Uni-Cradles, nuts and lock washers. Attach the main 30" cross boom to the mounting plate using the same hardware making sure to the center of the boom. The total distance between the two antennas will be 27"



Attach your pre-assembled 917-ISP antenna to the left side of the 30" cross boom. Attach a phasing cable to the antenna and route over the cross boom and underneath.



Attach the other pre-assembled 917-ISP to the right side of the 30" cross boom. Now attach the other phasing cable to the antenna and route to the right of the cross boom and underneath. Note- Both dipoles must be on the same side of the boom for proper phasing. **DO NOT MIRROR**



Attach the 915 2 port power divider to the vertical mast using the supplied 14" nylon tie. Route each phasing line to the power divider and weather proof as needed. Now attach your main feed line to the power divider.

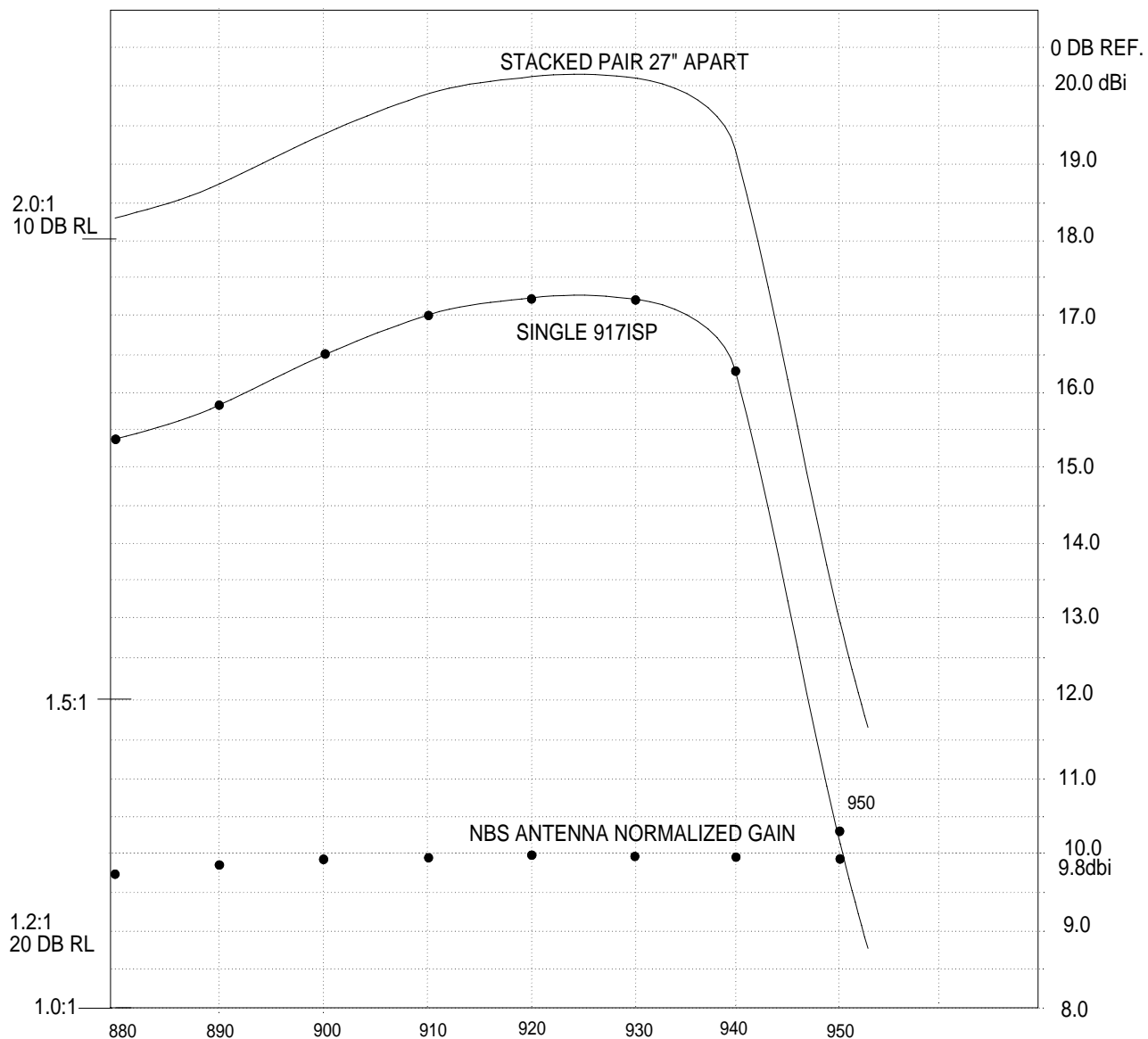
THIS COMPLETES THE ASSEMBLY



917ISPCX2 GAIN CURVE SPECIFICATION

ANTENNA RANGE VSWR / GAIN PLOT

DATE: MAR. 13-2004
ANTENNA UNDER TEST: 917ISP
EQUIPMENT USED:
WAVETEK SWEEPER, MODEL #2001
WAVETEK 15" OSCILLOSCOPE
HP 415E SWR METER.
TELONIC RHOTECTOR AND TELONIC CALIBRATED MISMATCHES
WEINCHEL AND HP 50 OHM TERMINATIONS AND PADS.
REFERENCE ANTENNAS NBS REFERENCE STANDARD GAIN DUAL DIPOLES OVER A
1 LAMBDA REFLECTOR (NOMINAL 7.7 DBD*) DBI = DBD + 2.14 DB.



These are the actual gain curves taken using a pair of identical NBS reference standard antennas which were built to NBS dimensions for use at 840-950 MHz.
The curve above shows the normalized curve of one NBS as the source and one as the AUT (Antenna Under Test). Normalized means the gain curve is just 1/2 of the actual difference between the two standards as measured on the range.
The nominal gain of the NBS reference standard is 9.84 dBi but actually peaks above 9.84 dBi by a few tenths of a dB.



DESCRIPTION	QTY
CROSS BOOM, 2.0" X .065 X 30" ALUMINUM	1
U-BOLT, 2" SS	4
UNI-CRADLE	4
MOUNTING PLATE, 4 X 6 ALUMINUM	1
915 2 PORT POWER DIVIDER	1
UHF-50 PHASING CABLE	2
ASSEMBLY MANUAL	1
IN HARDWARE BAG:	
NUT, 1/4-20 SS	8
LOCKWASHER, 1/4" SPLIT RING SS	8
NYLON TIE, 14"	2

FOR BOXING USE 40" X 4" X 4"

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