

4" VHF COMBINER

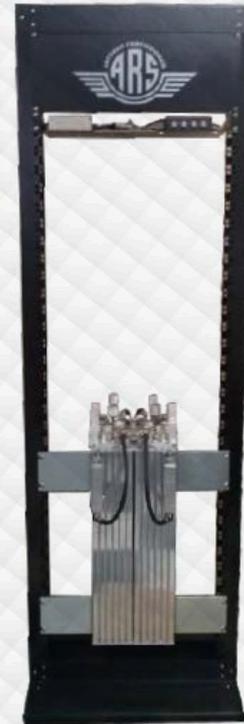
CAVITY COMBINERS SYSTEM

The ARS low-loss 4:1 combiner allows up to four VHF transmitters to be combined on one antenna. The system is supplied with an ARS receiver multi-coupler that allows up to eight VHF receivers to be combined on one antenna and up to twelve on two antennas.

The multicoupler is equipped with a tightly integrated low-noise amplifier with a high-selectivity, low-loss filter, enabling increased sensitivity and attenuation of noise and interfering signals.

The system, used in conjunction with ARS's fixed antennas, reduces the cost of tower space rental, antenna costs, coaxial cables, connectors, and mounts, and reduces the mechanical load on the tower.

Being modular, the system can be expanded with standardized modules, then allowing the inclusion of new repeaters.



Partnumber	Model	Range
525010	4:1 TX AND RX COMBINER 4"	148 / 174 MHz
525015	6:1 TX AND RX COMBINER 4"	148 / 174 MHz

ELECTRICAL SPECIFICATIONS	
Input power per channel	150 Watts
Nominal impedance	50 Ω
VSWR	≤ 1,5:1 (4:1 spacing ≥ 300 KHz)
Maximum insertion loss	Maximum 4,5 dB / typical 3,5 dB (4:1 spacing ≥ 300 KHz)
Cavity	High selectivity cavity per channel
Combiner connectors	N female (input and output)
Insulation	Two-stage, low-loss ferrite circulators
TX / TX isolation	≥ 60 dB
Minimum spacing	≥ 300 KHz (smaller values on request)
Multi-coupler connectors	BNC female (output) / N female (input)

MECHANICAL SPECIFICATIONS	
Weight of the set	35 Kg (approx. for 4:1 systems)
Installation pattern	19" rack
Frame dimensions (optional) (height x width x length)	1750 x 560 x 440 mm
Dimensions (height x width x length)	770 x 440 x 220 mm
Temperature of operation	0~60°C

