



Antenna Multi-Combiner

30-88 MHz / 225-450 MHz / 225-512 MHz / 700-2700 MHz

Features

- Antenna multi-combiner technology to reduce the number of antennas required to operate multiple transceivers.
- Solution for limited platform space or where a reduced visual signature is required.
- VHF, UHF, L-S Band.
- Antenna Ports: 2 x 30-512 MHz, 2 x 30-2700 MHz.
- Radio Ports: 4 x 30-88 MHz, 2 x 225-450 MHz, 2 x 225-512 MHz, 2 x 700-2700 MHz.
- Simultaneous transmission on all ports.
- High isolation between ports.
- Designed to fit standard 19 inch rack. 1U tall, half-rack width.
- Highly configurable to meet specific customer platform and frequency requirements.

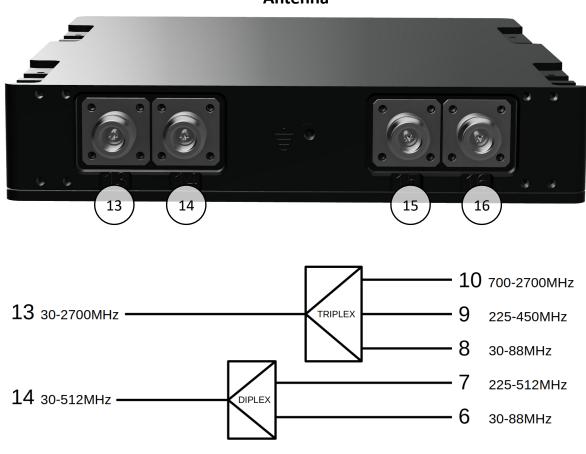


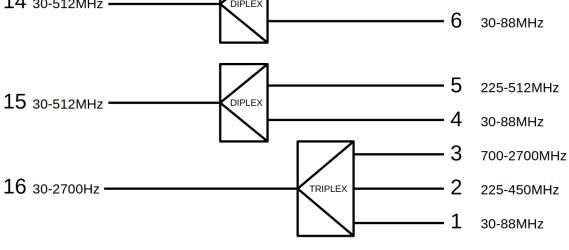


Electrical specification

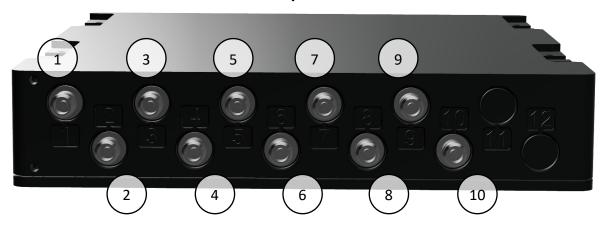
Frequency range	30-88 MHz 225-450 MHz			
	225-512 MHz 700-2700 MHz			
VSWR	30-88 MHz 225-450 MHz	< 1.5:1 < 2:1		
	225-512 MHz	< 1.5:1		
Nominal impedance	700-2700 MHz 50 Ohm	< 2:1		
Power rating	30-88 MHz	75 W, 30 mins		
(simultaneous transmission on all ports)	225-450 MHz 225-512 MHz	75 W, 30 mins 75 W, 30 mins		
	700-2700 MHz	50 W, 30 mins		
Diplexer / Triplexer Loss	30-88 MHz Diplexer	Port 15 to Port 4 Port 14 to Port 6	≤ -0.4 dB ≤ -0.4 dB	
	30-88 MHz Triplexer	Port 16 to Port 1 Port 13 to Port 8	≤ -0.6 dB ≤ -0.6 dB	
	225-512 MHz, Diplexer	Port 15 to Port 5 Port 14 to Port 7	≤ -0.4 dB ≤ -0.4 dB	
	225-450 MHz Triplexer	Port 16 to Port 2 Port 13 to Port 9	≤ -1 dB ≤ -1 dB	
	700-2700 MHz Triplexer	Port 16 to Port 3 Port 13 to Port 10	≤ -1.6 dB ≤ -1.6 dB	
Isolation Triplexer	30-88 MHz 225-450 MHz 225-450 MHz	Port 1/8 to Port 2/9 Port 1/8 to Port 2/9 Port 2/9 to Port 3/10	< -55 dB, typically -65 dB < -65 dB, typically -70 dB < -45 dB, typically -65 dB	
	700-2700 MHz	Port 2/9 to Port 3/10	< -35 dB, typically -50 dB	
Isolation Diplexer	30-88 MHz 225-512 MHz	Port 4/6 to Port 5/7 Port 4/6 to Port 5/7	< -60 dB, typically -70 dB < -65 dB, typically -70 dB	
HF Protect Filter	Triplexers are equipped with additional filtering to protect VHF inputs from HF interference. Port 1 and Port 8 -5 dB @ 20 MHz, -29 dB @ 15 Mhz			
Connectors	Tx/Rx:	Port 1 - 30-88 MHz, TNC Female Port 2 - 225-450 MHz, TNC Female		
		Port 3 - 700-2700 MHz, TNC Female		
		Port 4 - 30-88 MHz, TNC Female		
		•	t 5 - 225-512 MHz, TNC Female	
		Port 6 - 30-88 MHz, TNC Port 7 - 225-512 MHz, T		
		Port 8 - 30-88 MHz, TNC Female		
		Port 9 - 225-450 MHz, TNC Female		
		Port 10 - 700-2700 MHz	, TNC Female	
	Antenna:	Port 13 - 30-2700 MHz, N Type Female		
		Port 14 - 30-512 MHz, N Type Female Port 15 - 30-512 MHz, N Type Female		
		Port 15 - 30-512 MHz, N Port 16 - 30-2700 MHz,	• •	
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Antenna



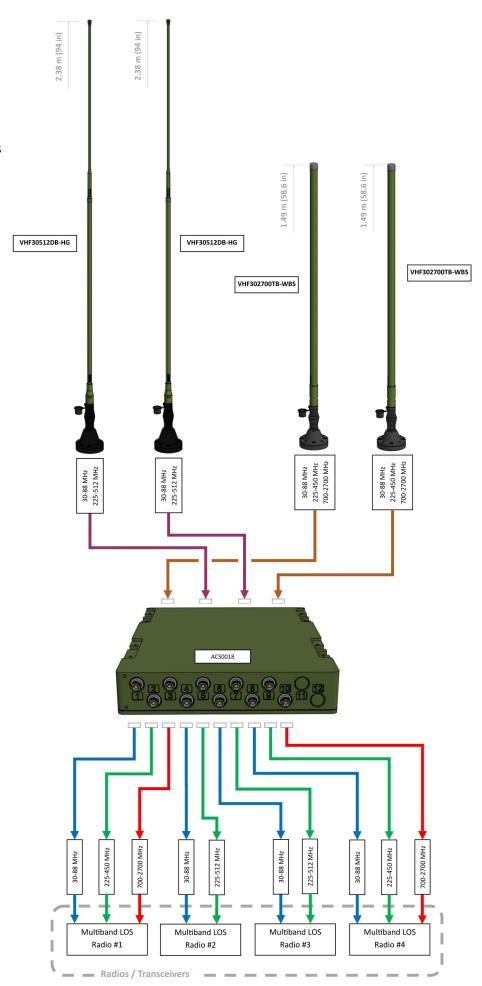


Tx/Rx



Typical System Configuration

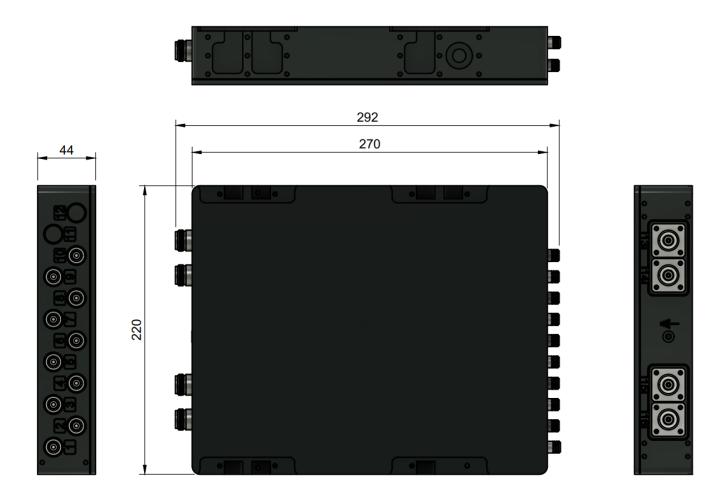
- 1 x ACS018
- 2 x VHF302700TB-WBS Antennas 30-2700 MHz
- 2 x VHF30512DB-HG Antennas 30-512 MHz
- 4 Antenna Ports / 10 Transceiver Ports



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Mechanical specification

Design	Aluminum housing, 1U tall, half-rack (19 in) width	
Dimensions - housing	W 220 x D 270 x T 44 mm (8.7 x 10.6 x 1.7 in)	
Dimensions - overall	W 220 x D 292 x T 44 mm (8.7 x 11.6 x 1.7 in)	
Weight	3.1 kg (6.8 lb)	
Temperature range	-55°C to +71°C, -67°F to +160°F	
Environmental	IP67	

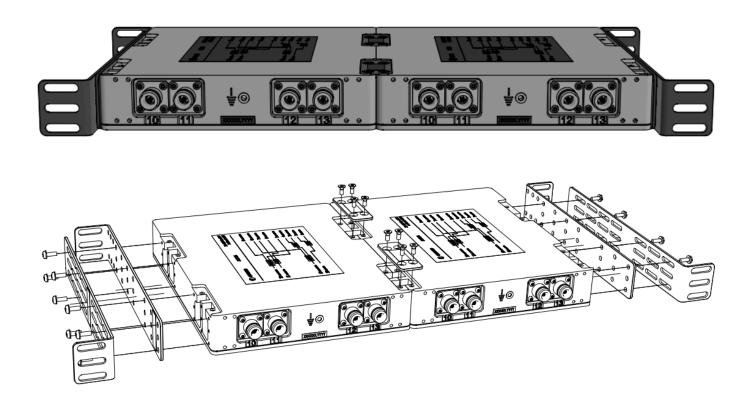


Mounting Accessories

Comrod has a large range of bracket accessories for mounting ACS series products. The standard ACS enclosure is 1U tall x half 19" rack width (44mm tall x 220mm wide x 270mm deep). Two ACS combiners can be joined side-by-side to fit into a 19" rack as shown below. Extension brackets are also available for mounting a single ACS combiner into a 19" rack.

19" Rack Mounting

2 x ACS combiners with joining brackets and 19" rack mounting brackets



Bulkhead Mounting

Single ACS combiner with bulkhead mounting brackets

