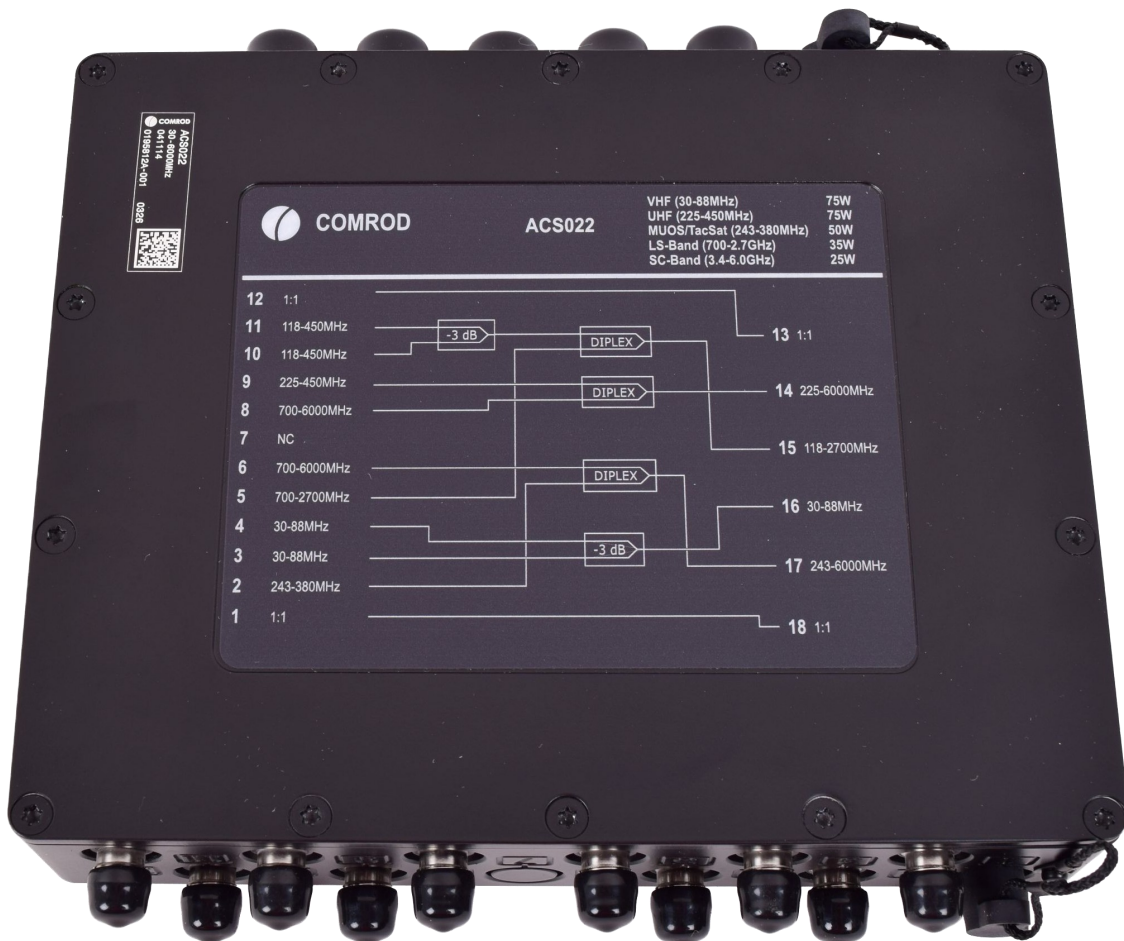


Features

- Antenna multi-combiner reduces the number of antennas required to operate multiple transceivers.
- Solution for limited platform space or where a reduced visual signature is required.
- VHF, UHF, MUOS-TacSat, L-S-C Band
- Antenna Ports: 2 x VHF, 1 x UHF + L-S-C Band, 1 x UHF MUOS + L-S-C-Band, 2 x Pass through ports
- Radio Ports: 11 x frequency specific ports (see table)
- Simultaneous transmission on all ports.
- High isolation between ports.
- Designed to fit standard 19 inch rack. 1U tall, half-rack width.



Electrical specification

Frequency range (Antenna ports)	30-88 MHz 118-2700 MHz 225-6000 MHz 243-6000 MHz				
Nominal impedance	50 Ohm				
VSWR / Power ¹	VSWR				Power (PEP)
	Feed through	Port 1	< 1.1:1 typ.	< 1.4:1 max.	Feed through
	243-380 MHz	Port 2	< 1.2:1 typ.	< 1.4:1 max.	50 W
	30-88 MHz	Port 3	< 1.3:1 typ.	< 1.4:1 max.	75 W
	30-88 MHz	Port 4	< 1.2:1 typ.	< 1.4:1 max.	75 W
	700-2700 MHz	Port 5	< 1.5:1 typ.	< 2:1 max.	35 W
	700-6000 MHz	Port 6	< 1.5:1 typ.	< 2:1 max.	35 W (25 W 3200-6000 MHz)
		Port 7 - Not used			
	700-6000 MHz	Port 8	< 1.5:1 typ.	< 2:1 max.	35 W (25 W 3200-6000 MHz)
	225-450 MHz	Port 9	< 1.1:1 typ.	< 1.3:1 max.	75 W
	118-450 MHz	Port 10	< 1.1:1 typ.	< 1.3:1 max.	75 W
	118-450 MHz	Port 11	< 1.1:1 typ.	< 1.3:1 max.	75 W
	Feed through	Port 12	< 1.1:1 typ.	< 1.4:1 max.	Feed through
Insertion Loss ² (Including combiner losses)	Feed through	Port 1 to Port 18	< 0.1 dB typ.	< 0.3 dB max.	
	243-380 MHz	Port 2 to Port 17	< 0.3 dB typ.	< 0.4 dB max.	
	30-88 MHz	Port 3 to Port 16	< 3.1 dB typ.	< 3.2 dB max.	
	30-88 MHz	Port 4 to Port 16	< 3.1 dB typ.	< 3.2 dB max.	
	700-2700 MHz	Port 5 to Port 15	< 0.5 dB typ.	< 0.9 dB max.	
	700-6000 MHz	Port 6 to Port 17	< 0.5 dB typ.	< 2.4 dB max.	
		Port 7 - Not used			
	700-6000 MHz	Port 8 to Port 14	< 0.5 dB typ.	< 2.4 dB max.	
	225-450 MHz	Port 9 to Port 14	< 0.3 dB typ.	< 0.5 dB max.	
	118-450 MHz	Port 10 to Port 15	< 3.5 dB typ.	< 4.0 dB max.	
	118-450 MHz	Port 11 to Port 15	< 3.7 dB typ.	< 4.0 dB max.	
	Feed through	Port 12 to Port 13	< 0.1 dB typ.	< 0.3 dB max.	
Isolation		Port 2 to Port 6	> 47 dB typ.	35 dB max.	
		Port 3 to Port 4	> 27 dB typ.	26 dB max.	
		Port 8 to Port 9	> 50 dB typ.	38 dB max.	
		Port 10 to Port 5	> 45 dB typ.	43 dB max.	
		Port 10 to Port 11	> 23 dB typ.	23 dB max.	
		Port 11 to Port 5	> 45 dB typ.	43 dB max.	
Connectors	Radio:	Port 1 - Feed through		TNC Female	
		Port 2 - 243-380 MHz		TNC Female	
		Port 3 - 30-88 MHz		TNC Female	
		Port 4 - 30-88 MHz		TNC Female	
		Port 5 - 700-2700 MHz		TNC Female	
		Port 6 - 700-6000 MHz		TNC Female	
		Port 7 - Not used			
		Port 8 - 700-6000 MHz		TNC Female	
		Port 10 - 118-450 MHz		TNC Female	
		Port 11 - 118-450 MHz		TNC Female	
		Port 12 - Feed through		TNC Female	
	Antenna:	Port 13 - Feed through		N Type Female	
		Port 14 - 225-6000 MHz		N Type Female	
		Port 15 - 118-2700 MHz		N Type Female	
		Port 16 - 30-88 MHz		N Type Female	
		Port 17 - 243-6000 MHz		N Type Female	
		Port 18 - Feed through		N Type Female	

1 - Optimized frequency bands (MHz) 700-960 / 1350-1440 / 1710-2700 / 3200-6000

2 - All values are measured with unused ports terminated with a 50-ohm load.

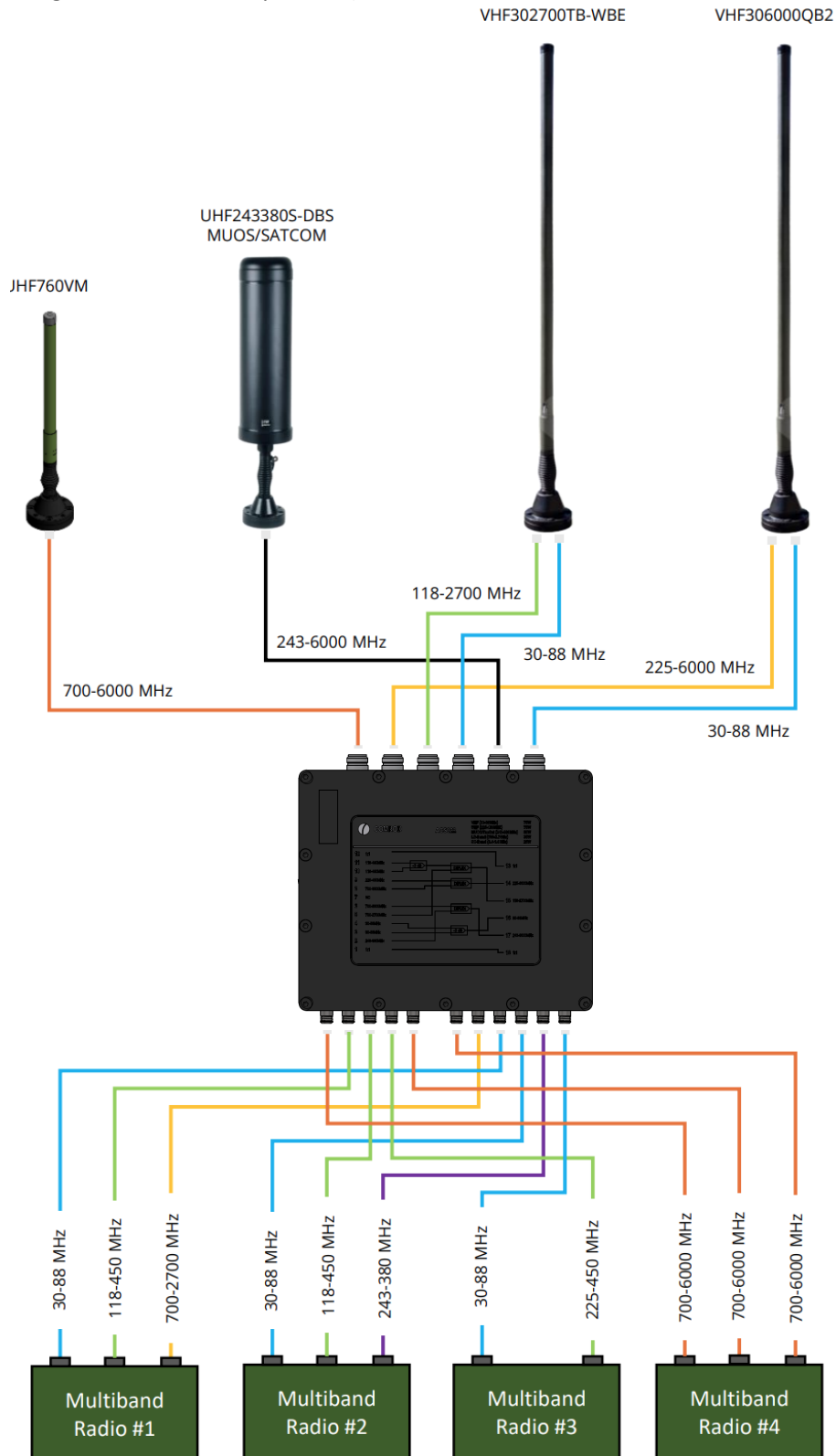
Antenna Connections - N Type Female



Radio Connections - TNC Female

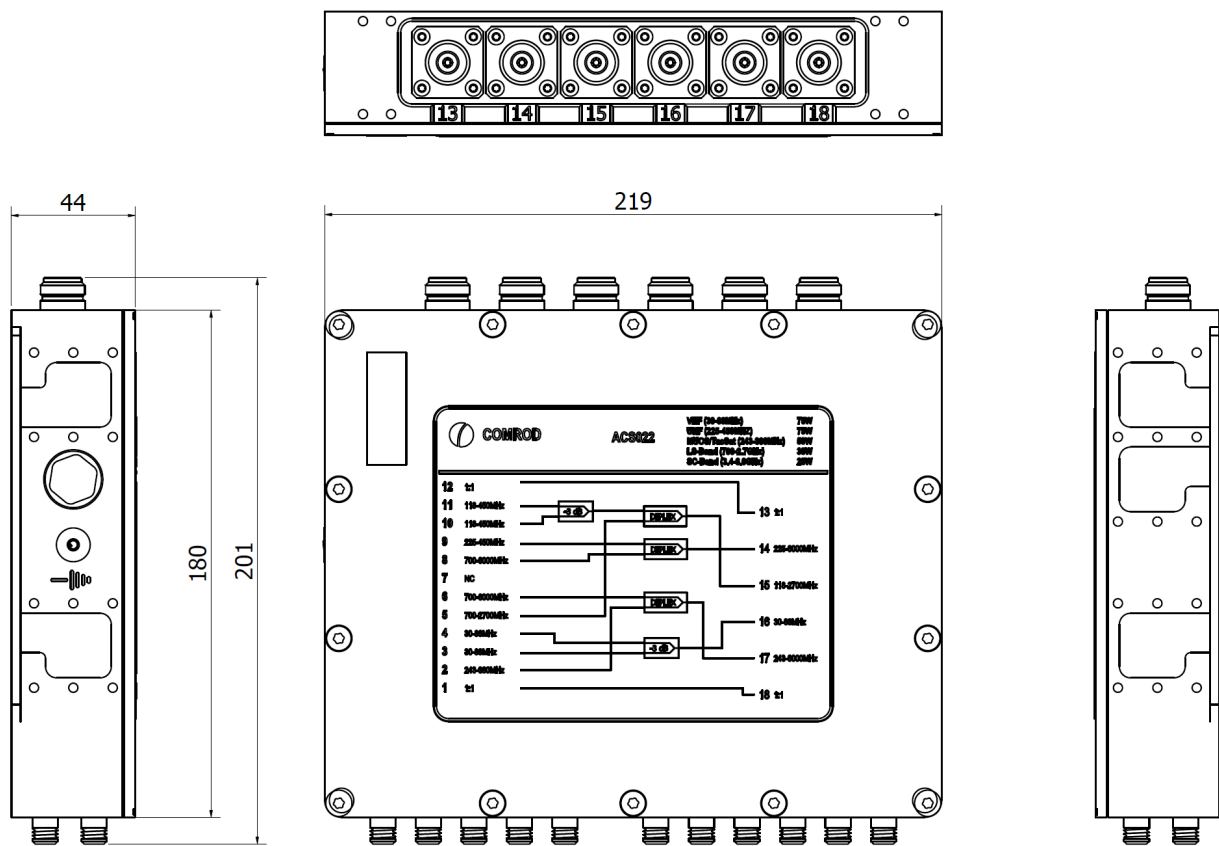
Typical System Configuration

- 1 x ACS022
- 1 x UHF760VM (700-6000 MHz)
- 1 x UHF243380S-DBS MUOS/TacSat/L-S-C Band Antenna (243-6000 MHz)
- 1 x VHF302700TB-WBE (30-88 MHz / 118-2700 MHz)
- 1 x VHF306000QB2 (30-88 MHz / 225-6000 MHz)
- 11 Radio Ports (see diagram below for frequencies)



Mechanical specification

Design	Aluminum housing, 1U tall, half-rack (19 in) width
Dimensions - housing	W 220 x D 180 x T 44 mm (8.7 x 7.1 x 1.7 in)
Dimensions - overall	W 220 x D 201 x T 44 mm (8.7 x 7.9 x 1.7 in)
Weight	2.4 kg (5.3 lb)
Temperature range	-55°C to +71°C, -67°F to +160°F
Environmental	IP67 (mated)

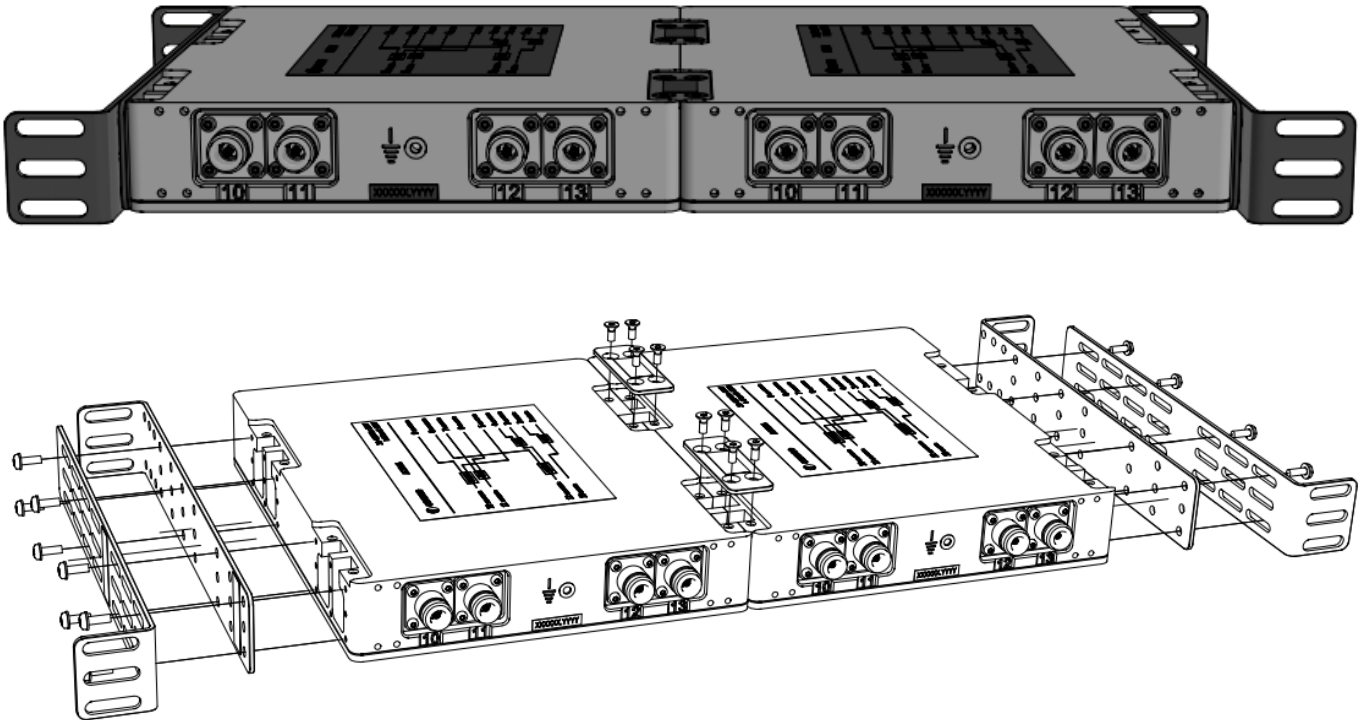


Mounting Accessories

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

