CAPAS-DR

Automated Payload Alignment System - Dual Rotator

The Comrod family of CAPAS® Automatic Payload Alignment Systems enables quick and effective deployment of communication or sensor assets without exposing personnel to unnecessary danger.

CAPAS-DR Dual Rotator System accomplishes this by enabling independent 360 degree azimuth rotation of two separate payloads. The compact design allows a single mast to be deployed in situations that would previously have required two independent masts.

CAPAS-DR supports both closed loop and open loop alignment, and allows a combination of both. In closed loop alignment mode the system is controlled by a radio transceiver to optimize received signal strength or minimize bit error rate. In open loop alignment mode the system is controlled by the Comrod Integrated Mission Planning System. The powerful drive system coupled with the optional fully integrated GPS compass allows fast and accurate positioning of payloads demanding better than 1.5 degree pointing accuracy. Closed loop feedback from the radio can optimize the alignment within a fraction of a degree.

CAPAS-DR is fully rugged per MIL-STD-810, and is suitable for a wide variety of tactical masts.

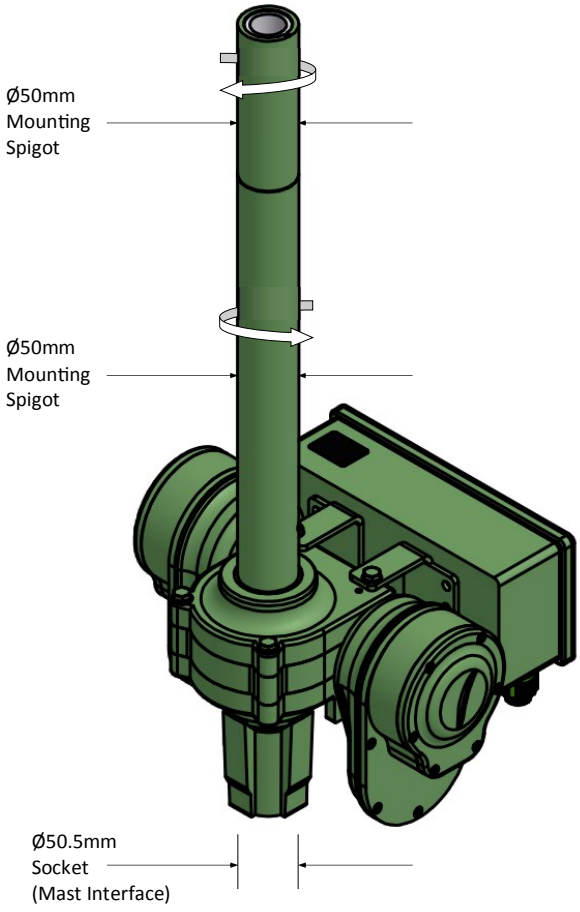
CAPAS-DR with two Comrod band 4 antennas mounted on a Comrod TM210 electro-mechanical mast

Features	
Alignment Modes	Closed loop mode with transceiver control Open loop mode with magnetic or DGPS compass control Hybrid mode
Planning Tool (Optional)	Integrated Mission Planning System
Pointing Accuracy	1.5 degrees
Rotating Speed	> 10 degrees per second
Operating Temperature (Ambient)	-40°C to +60°C (-40°F to 140°F)
Dimensions (nominal)	W = 42cm, H = 80cm, D = 30cm (~16.5 x 31.5 x 12 in)
Weight (approx.)	15kg (~33 lbs)
Mounting	Lower socket, 50.5mm (~2 in) Upper payload mounting spigots 50mm (~2 in) Adaptors are available for a wide range of payloads and masts

* Patent Pending

Characteristic	Standard
Interfaces	CAN, RS232, RS485 and Ethernet
Vehicle Power	MIL-STD 1275E
EMC/EMI	MIL-STD-461F CE102, RE102, RS103, CS101, CS114, CS115 and CS116
Wind Rating (Max)	150 km/h (94 mph), when fitted with typical Comrod Band 4 antennas (see below)
Operating Temperature	Ambient: --40°C to +60°C (-40°F to 140°F)
Encapsulation	IP67
Sand and Dust	MIL-STD-810G METHOD 510.5 Procedure I and II
Altitude	MIL-STD-461F; Ground Army; B9:C15
High temperature	Operation: MIL-STD-810G, Method 501.5, Procedure II , 60°C Storage: MIL-STD-810G, Method 501.5, Procedure I, 71°C
Low temperature	Operation: MIL-STD-810G, Method 502.5, Procedure II, - 40°C Storage: MIL-STD-810G, Method 502.5, Procedure I, -51°C
Humidity	MIL-STD-810G, Method 507.5, Procedure II, Aggravated
Vibration	MIL-STD-810G, Method 514.6C Table 514.6C-VI. Composite wheeled vehicle vibration exposures figure 514.6C-3 . MIL-STD-801G, Method 514.6D, Ground Vehicle Category 20, Wheeled/Tracked/Trailer, Procedure I/III
Shock	MIL-STD-810G, Method 516.6, Procedure I, functional Shock, 12g 11ms

Mounting Details



Typical Installation