

CAPAS-DR

Dual automatic rotator system
Mission Systems



The Comrod family of CAPAS® Automatic Payload Alignment Systems are designed to meet the challenges faced by public safety, defence and demanding industrial users. CAPAS® systems enables quick and effective deployment of communication or sensor assets in extreme environments without exposing personnel to unnecessary danger.

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

The powerful drive system coupled with the integrated magnetic compass ensures fast and accurate positioning. CAPAS-DR supports both closed loop and open loop alignment, or a combination of both.

In closed loop alignment mode the system is controlled by a radio transceiver to optimise received signal strength and minimise bit error rate. In open loop mode the system can utilise input from the Comrod TCT Planning System for quick initial positioning. Closed loop feedback from the radio can then further optimise the alignment within a fraction of a degree.

CAPAS-DR is fully rugged per MIL-STD-810, and is suitable for a wide range of deployable masts, including Comrod TM, LMT and ULM series.



CAPAS-DR with Comrod band 4 and 3+ antennas mounted on a Comrod TM210 electro-mechanical mast

Features

Power Supply	18 to 52 VDC (MIL-STD 1275E)
Alignment Modes	Closed loop mode with radio transceiver control Open loop mode with built-in magnetic compass Hybrid mode
Planning Tool (Optional)	Comrod TCT Mission Planning System
Pointing Accuracy / Repeatability	~ 0.5 degree relative to base
Rotating Speed*	> 10 degrees per second*
Mechanical Limits	Rotation axis: Infinite. Arbitrary limits can be defined in software
Operating Temperature (Ambient)	- 40°C to + 60°C
Torque*	> 50 Nm Dynamic*, > 250 Nm Static (survival)
Payload Capacity*	2 x 20 kg (maximum in-balance load)*
Dimensions (nominal)	W = 341 mm, H = 772 mm, D = 278 mm
Weight	15.2 kg
Mounting	Lower socket, 50.5 mm Upper payload mounting spigots 50 mm Adaptors are available for a wide range of payloads and masts

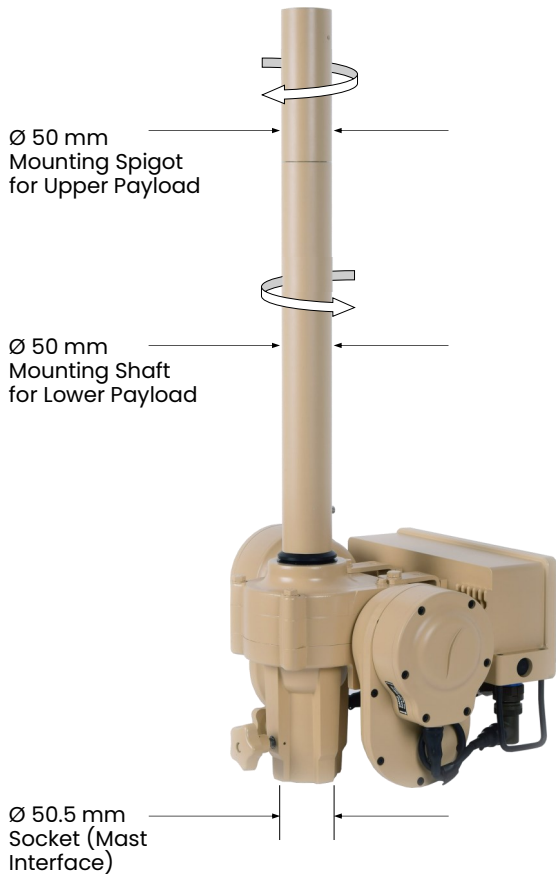
* Dependent on power supply and payload weight/area

Characteristics

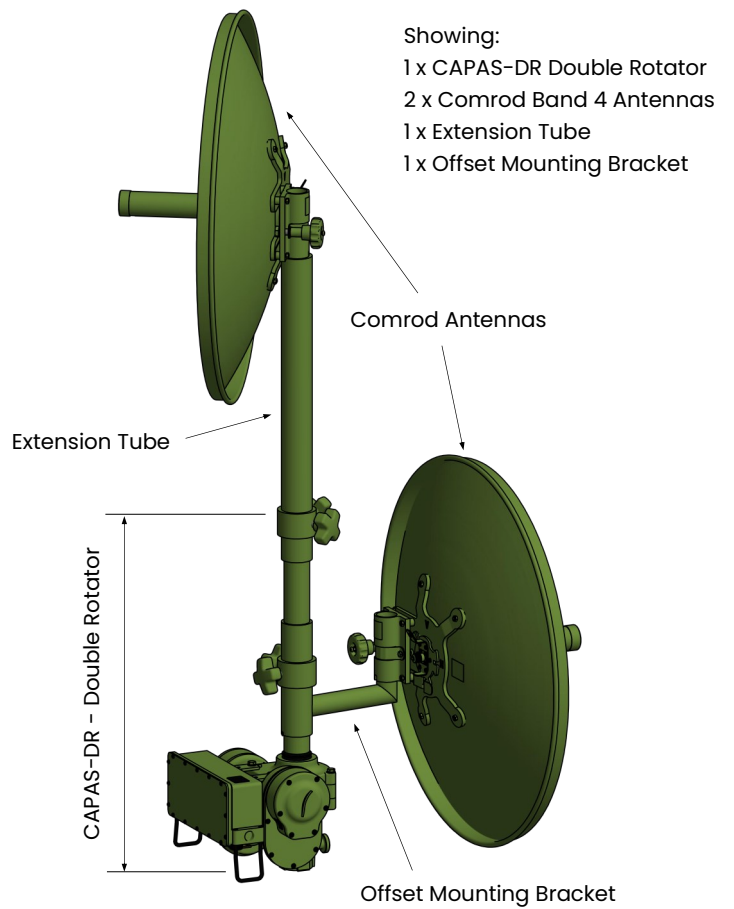
Interfaces	CAN, RS232, RS485, RS422, Ethernet (IEEE 802.3u)
Vehicle Power	MIL-STD 1275E
EMC/EMI	MIL-STD-461F CE102, RE102, RS103, CS101, CS114, CS115 and CS116
Operating Temperature	Ambient: - 40°C to + 60°C
Encapsulation	IP67
Sand and Dust	MIL-STD-810G Method 510.5 Procedure I and II
Altitude	Operational - MIL-STD-810G: Method 500.5, Procedure II, 4572 m (15000 ft) at 57.2 kPa Storage - MIL-STD-810G: Method 500.5, Procedure I, 12192 m (40000 ft) at 18.8 kPa
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-810G, 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

* Unit without payload. Permanent mount required for high shock/vibration environments

Mounting Details



Typical Application



All specifications are subject to change without notice
The information contained herein is for reference only and does not constitute a warranty of performance

Partnered Supplier



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