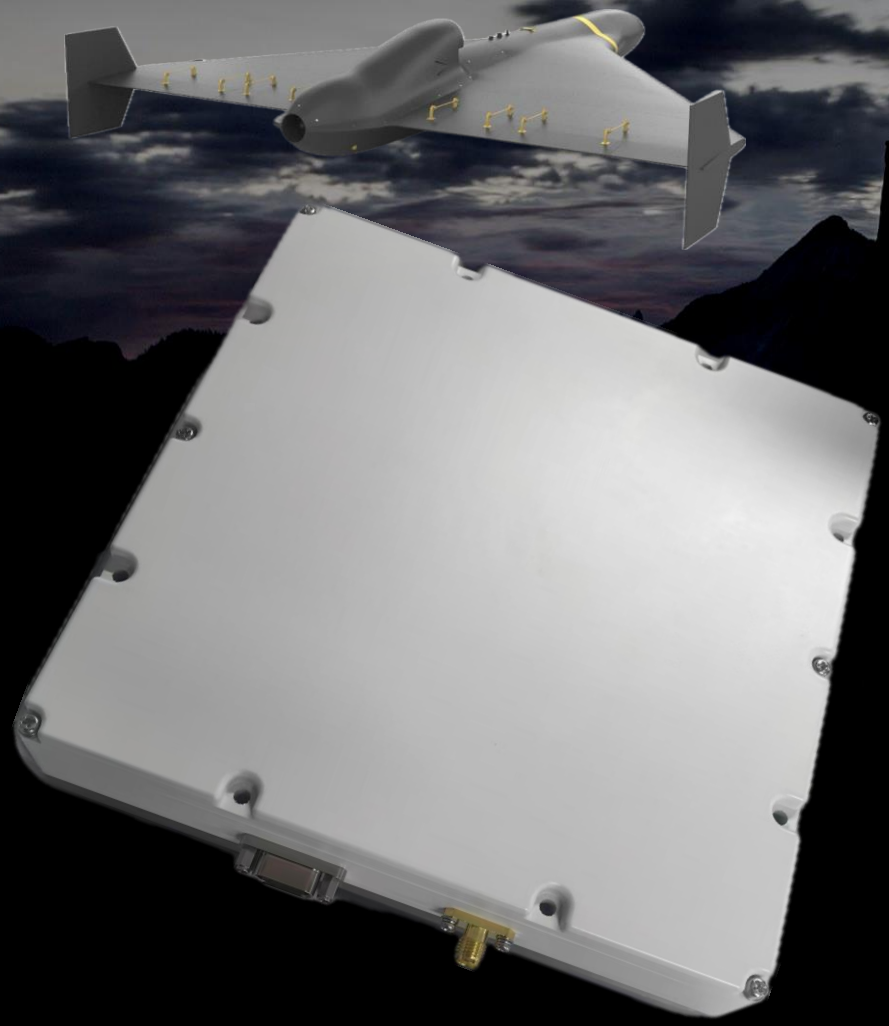
The Wall-E16
16-element CRPA antenna

The purpose of using the Wall-E16 anti-jamming antenna or Controlled Reception Pattern Antenna (CRPA) is to ensure stable reception of the GNSS navigation signal in conditions of CW or AWGN jamming from Electronic Warfare Systems (EWS). The Wall-E16 is connected to the GNSS Receiver (recommended JAVAD TR-2S) via a RF connector. The Wall-E16 CRPA has a embedded GNSS Receiver that can be connected to the UAV's autopilot via the UART interface.



Low power consumption in drones is crucial for extending flight time, typically achieved through CRPA lightweight designs, efficient autopilots, and aerodynamic optimization.

Specification

Receive GNSS:
GLONASS L1 + GALILEO E1 + GPS L1 + BDS B1
Interference Rejection:
GALILEO E1 + GPS L1 + BDS B1
Antenna Array: 16
Nulling Directions: 15
Anti-Jamming:
JSR 110 dB for 1 jammer AWGN with GNSS Receiver
75 dB for 14 jammer AWGN with GNSS Receiver
Data Rate: 38400/1 Hz
Intefaces: UART
Data Output Format: NMEA 0183
Power Supply: 12-24 V
Power Consumption: 20 W
RF Connector: SMA-KF
Power Connector: J30J-9ZKP
Weight: 760 g
Size: 165 x 165 x 35 mm
Temperature: -40°C to +85°C
Reliability: MTBF 20000 h
EMI/EMC: MIL-STD-461F
Environmental Tests: MIL-STD-810G

Weight up to 760 g