

GCA-11

Solid State Directional Antenna

> Applications

- Airborne News Gathering
- ISR Surveillance
- Law Enforcement
- Ground Vehicle Operations

> Features

- 11dBi Gain
- Models Available from 1.7 to 7.1 GHz
- No Moving Parts
- Small and Lightweight
- Transmission of SD or HD Video
- Integral Processor and Compass
- Low Maintenance
- High Speed Transmit Tracking
- 28V for Use in Aircraft
- Data Input for Receive Tracking
- Automatic, Manual, and Omni-Directional Modes
- GPS Receiver/Controller Required

> Options

- Aircraft Mounting Frame
- Aircraft or Vehicle wiring harness
- Complete Microwave Transmit or Receive System



> Performance

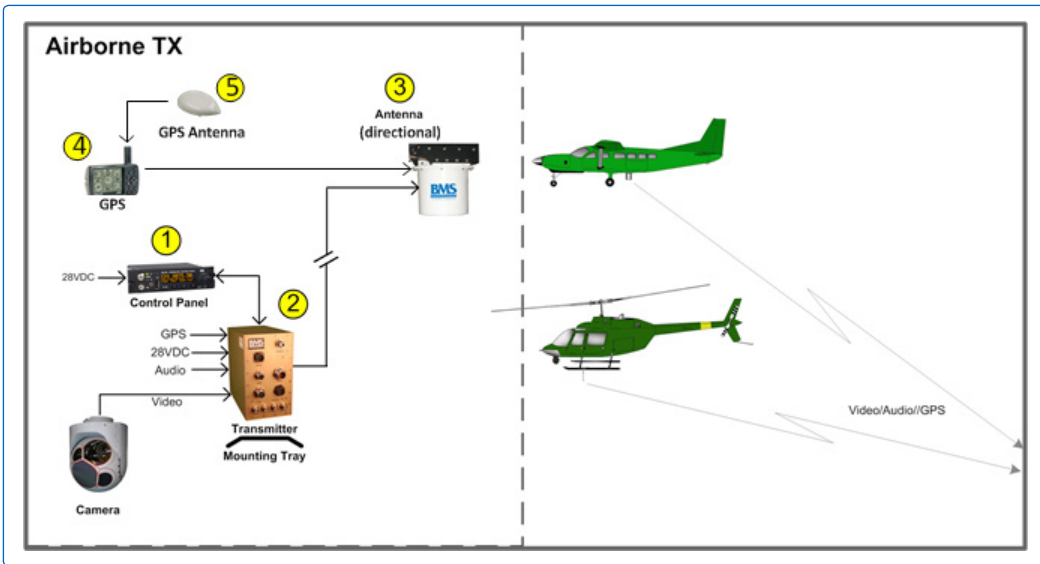
This lightweight microwave antenna is fully automatic, requires no operator intervention during normal operation, has no moving parts for low maintenance costs, and incorporates a solid state switchable antenna array.

The pod is self-contained with integral electronics employing a high performance embedded processor which handles all control, supervision, and high speed streaming communication protocols, together with a solid state compass and modular I/O system.

The GPS receiver/controller may be pre-configured with up to 20 receive site waypoints. Directing the antenna is a simple matter of selecting the correct waypoint. The antenna automatically switches antenna sectors to continuously illuminate the selected receive site. When operating close to the receive site, or when transmitting to multiple dismounted ground units, an omni-directional mode is selected.

The GCA-11 may be used on rotary or fixed wing aircraft, or ground vehicle or fixed tower mounted. Both transmit and receive modes are supported.

> HC4 High Power Transmitter



Description

- 1 DLC50 Control Panel
- 2 Heli-Coder III or HC4 Transmitter
- 3 GCA-11 Directional Antenna
- 4 Antenna Controller (GPSMap 196)
- 5 GPS Antenna

> Connectors

RF In or Out	N(f), 50 ohm
Power and Control	ITT-Cannon KPT07A14-19P Mating connector KPSE06F14-19S

> Required Accessories

GPS Receiver/Controller	GPSMap 196
GPS Antenna and cable	GA-56

> Optional Accessories

Mounting Frame	Varies by aircraft Consult factory for options
Wiring Harness	Varies by aircraft and equipment list Consult factory for options
Microwave transmitter system	Consult factory for details

> Ordering Information

GCA-11-225	2.0-2.5 GHz
GCA-11-250	2.3-2.7 GHz
GCA-11-350	3.3-3.7 GHz
GCA-11-495	4.7-5.2 GHz
GCA-11-580	5.7-5.9 GHz
GCA-11-675	6.4-7.1 GHz

> Technical Characteristics

Frequency	1.7 to 7.1 GHz in bands (up to 500 MHz bandwidth)
Number of panels	8
Gain	11 dBi nominal in directional mode 2dBi in omni mode
Antenna Polarity	Vertical/Linear, RHCP, LHCP (specify at time of order)
Azimuth Beamwidth	45 degrees in directional mode 360 degrees in omni mode
Elevation Beamwidth	35 degrees
Return Loss	>14dB
Maximum RF Input	30W CW
Operating Temperature	-20 to +55 degrees C
Humidity	0-95% RH, Non-Condensing
Dimensions	12" diameter x 9" high (30.48 x 22.86 cm)
Weight	9 lbs. (4kg)
Power Input	8-30 VDC, 30 VA
Windspeed	Survive and operate up to 300 kts.



GCA-11 on a fixed wing aircraft