LOS Antenna Applications

No matter what the operation, manpack ... fixed site ... mobile, General Dynamics offers an impressive array of Line-of-Sight (LOS) Transceiver Antennas and Accessories that fully support our URC-200 Transceiver in virtually every application. Put another way, our transceiver systems are as complete as they are reliable.

Our family of URC LOS Antennas and Accessories include whips ... dual-band ... tri-band ... and spring loaded designs.

At General Dynamics, we make it our mission to provide you with the tools, the flexibility and the dependability you need for your mission...no matter where it might be.

- UVU-100 — Manpack antenna for backpack configuration
- UVU-100S — Spring-loaded mobile antenna
- UVU-115 — Mobile or base station whip antenna and mount
- UVU-130 — Mobile or base station whip antenna and mount
- UVU-200 — Dual-band base station antenna
- UVU-300 — Tri-band base station antenna
- UVL-100 — Manpack antenna for 30 to 90 MHz backpack configuration
- UVL-150 — Vehicle mounted, 30 to 90 MHz spring-loaded antenna
UVU-100 manpack antenna for backpack configuration

- Part Number: 85-P35988M001
- Frequency: VHF BAND: 115 to 174 MHz
- UHF BAND: 225 to 400 MHz
- Gain: 2.5 dBi @ 250 MHz
- VSWR: 2.5:1 or less
- Power: 30 Watts maximum
- Impedance: 50 (nominal)
- Polarization: Vertical
- Pattern: Omni-directional
- Height: 14 inches (overall)
- Weight: One pound maximum
- Connector: VHF/UHF Bands, One BNC male
- Mounting: A threaded sleeve on the connector secures the antenna to a URC-200, URC-500, or PET-2000
- Construction Features:
  - Radiator covering is dull black insulation tubing
  - Antenna base has a lockable swivel to maintain an optimum vertical polarization
- Optional Accessories:
  - UVU-110 Vehicular Mounting Kit, which includes a UVU-100 antenna, vehicle mount and 20 feet of antenna cable; part number 85-P36002M001

UVU-100S spring-loaded mobile antenna

- Part Number: 85-P39217N001
- Frequency: VHF BAND: 115 to 174 MHz
- UHF BAND: 225 to 400 MHz
- Gain: Unity
- VSWR: 2.5:1 or less
- Power: 30 Watts maximum
- Impedance: 50 (nominal)
- Polarization: Vertical
- Pattern: Omni-directional
- Height: 14 inches
- Weight: One pound maximum
- Connector: VHF/UHF Bands, One BNC male
- Mounting: A threaded sleeve on the connector secures the antenna to a URC-200, URC-500, or PET-2000
- Construction Features:
  - Radiator is aluminum tubing with black epoxy finish
  - Antenna base has a self-righting break-away joint to prevent damage when struck by moving objects
- Optional Accessories:
  - UVU-110S Light Duty Vehicular Mounting Kit, which includes a UVU-100S antenna, vehicle mount and 18 feet of antenna cable; part number 85-P39221N001

UVU-115 mobile or base station whip antenna and mount

- Part Number: 01-P35859M001
- Frequency: VHF BAND: 115 to 174 MHz
- UHF BAND: 225 to 400 MHz
- Gain: Unity (compared to co-located 1/4 wave monopole)
- VSWR: 2.5:1 or less
- Power: 50 Watts CW and PEP
- Impedance: 50 (nominal)
- Polarization: Vertical
- Pattern: Omni-directional
- Height: 22.5 inches (Low Profile)
- Weight: 4 pounds
- Connector: VHF/UHF Bands, One Type N female
- Mounting: Universal adjustable flange mount
- Optional Accessories:
  - For Base Station Applications: URF-B61-LLL Heliax Antenna Cable Set, part number 30-P37421K011LLL
  - (Note: “LLL” = length of cable in feet)
  - For Vehicular Applications: URF-V61-LLL Heliax Antenna Cable Set, part number 30P37421K021LLL
  - (Note: “LLL” = length of cable in feet)
**URC Line-of-Sight Antennas**

**UVU-130 mobile or base station whip antenna and mount**
- **Part Number:** 01-P35858M001
- **Frequency:** VHF BAND: 115 to 174 MHz  
  UHF BAND: 225 to 400 MHz
- **Gain:** 2.5 dBi (compared to a 1/4 wave monopole) – High Gain
- **VSWR:** 2.5:1 or less
- **Power:** 50 Watts CW and PEP
- **Impedance:** 50 (nominal)
- **Polarization:** Vertical
- **Pattern:** Omni-directional
- **Height:** 39 inches
- **Weight:** 7 pounds, 14 ounces
- **Connector:** VHF/UHF Bands, One Type N female
- **Mounting:** Universal adjustable flange mount
- **Optional Accessories:**  
  For Base Station Applications: URF-B61-LLL Heliax Antenna Cable Set, part number 30P37421K011LLL (Note: “LLL” = length of cable in feet)  
  For Vehicular Applications: URF-V61-LLL Heliax Antenna Cable Set, part number 30P37421K021LLL (Note: “LLL” = length of cable in feet)

**UVU-200 dual-band base station antenna**
- **Part Number:** 85-P35990M001
- **Frequency:** VHF BAND: 113 to 174 MHz  
  UHF BAND: 225 to 420 MHz
- **Gain:** Unity to +2.5 dBi (nominal)
- **VSWR:** 2.5:1 or less
- **Power:** 250 Watts CW and PEP
- **Impedance:** 50 (nominal)
- **Polarization:** Vertical
- **Pattern:** Omni-directional
- **Height:** 54 inches (cone diameter: 36 inches)
- **Weight:** 7 pounds
- **Connector:** VHF/UHF Bands, One Type N female
- **Mounting:** Antenna mast diameter = 1.25 inches
- **Construction Features:**  
  6061-T6 aluminum; coated clear alodine
- **Wind load:** 115 mph; with 1/2” radial ice: 80 mph
- **Optional Accessories:**  
  For Base Station Applications: URF-B61-LLL Heliax Antenna Cable Set, part number 30P37421K011LLL (Note: “LLL” = length of cable in feet)

**UVU-300 tri-band base station antenna**
- **Part Number:** 85-P35637J
- **Frequency:** LVHF BAND: 30 to 90 MHz  
  VHF BAND: 110 to 174 MHz  
  UHF BAND: 225 to 400 MHz
- **Gain:** -6 dBi @ 30 to 88 MHz  
  +1 dBi @ 110 to 174 MHz  
  0 dBi @ 225 to 400 MHz
- **VSWR:** 2.5:1 or less
- **Power:** 50 Watts
- **Impedance:** 50 (nominal)
- **Polarization:** Vertical
- **Pattern:** Omni-directional
- **Height:** 121.6 inches
- **Weight:** 11 pounds
- **Connector:** LVHF Band, One BNC female • VHF/UHF Bands, One Type N female
- **Mounting:** Antenna mast diameter = 1.125 inches
- **Construction Features:**  
  Finish: Chem Film per MIL-C-5541 Black top coat  
  Wind load: 130 mph
- **Optional Accessories:**  
  For Base Station Applications: URF-B63-LLL Heliax Antenna Cable Set, part number 30P37421K013LLL (Note: “LLL” = length of cable in feet)
**URC Line-of-Sight Antennas**

**UVL-100 Manpack antenna for backpack configuration**

- **Part Number:** 85-P53505R001
- **Frequency:** LVHF BAND: 30 to 90 MHz
- **Gain:** 0 dBi maximum
- **VSWR:** 3.0:1
- **Power:** 24 Watts maximum
- **Impedance:** 50 Ω (nominal)
- **Polarization:** Vertical
- **Pattern:** Omni-directional
- **Height:** 40 inches (overall) maximum
- **Weight:** 0.7 pounds maximum
- **Connector:** LVHF Band, One Type N male
- **Mounting:** Type N connector threads
- **Construction Features:**
  - Finish: Black mat. Radiator is flexible, allowing fold-up storage with (hock & loop tie-up strap attached) spring back return action. Antenna base is attached to the antenna with a goose neck section to maintain an optimum vertical polarization

**UVL-150 vehicle mounted, spring loaded antenna**

- **Part Number:** 85-P35638J001
- **Frequency:** LVHF BAND: 30 to 90 MHz
- **Gain:** Not less than -3.0 dBi
- **VSWR:** 3.0:1
- **Power:** 50 Watts maximum
- **Impedance:** 50 (nominal)
- **Polarization:** Vertical
- **Pattern:** Omni-directional
- **Height:** 78 inches
- **Weight:** 5 pounds
- **Connector:** LVHF Band, One BNC female
- **Mounting:** Flange mount (requires a 3.25" diameter hole)
- **Construction Features:**
  - Finish: Epoxy paint per MIL-C-22750, color #24087, Olive drab per FED-STD-595 Requires no external matching or coupling device
- **Optional Accessories:**
  - For Base Station Applications: URF-V61-LLL Heliax Antenna Cable Set, part number 30P37421K021LLL(Note: “LLL” = length of cable in feet) For Vehicular Applications: URF-V61-LLL Heliax Antenna Cable Set, part number 30P37421K021LLL (Note: “LLL” = length of cable in feet)