A600 High-Gain Tracking Directional Diversity Antenna System

The A600 is a ground antenna system developed for the digital age. It has been designed to:

- Operate at long distances
- Minimize multi-path problems
- Minimize operator workload
- Lower installation costs
- Set-up and track moving targets automatically
- Be network-managed

Operation
The A600 allows the operator to concentrate on the content, not the capture of the signal. The system is designed to be completely hands-off, once the receive channel has been set. The A600 manages everything from capture via the panel antennas, the automatic peaking of the directional antenna, and the complete optimization of the system. No other antenna system looks like this or performs like this.

Performance
Using Troll’s six-channel diversity receiver technology and a traditional high-gain steerable with five surrounding panels, Troll created a system that is truly unique. It is multi-path immune and capable of long-range operation, all with minimal operator interaction.

Installation
Installation costs are reduced by minimizing the equipment and cables required to configure a system.

Typical applications include
- Electronic News Gathering
- Defense Infrastructure
- Military Surveillance
- Airborne Law Enforcement
- Unmanned Aerial Systems (UAS)

Hybrid Option - Two Receive Systems in One
With the hybrid option installed, the A600 performs like two antennas in one. The high-gain steerable antenna provides a long-range data link, while the panels serve as a medium-range, autonomous, diversity antenna system. In this configuration two or more transmit signals can be received simultaneously.

- Long-Range, High-Gain Receive System
- Medium-Gain Omni-directional Diversity Receive System

Easy-to-Operate and Install
Uni-directional and Bidirectional Systems
ASI Transport Output
Long-Range and Short-Range Operation
Multi-Path Immune
Self-Optimizing/Auto-Tracking
Multiple System Configurations Available:
- Six-Channel Directional Diversity Receive System
- Hybrid Mode - Dual Receiver
  Two Complete TX/RX Systems in One
- FM: High-Gain Directional Receive Only
A600 Directional Diversity L to Ku Band
Six (6) Channel Diversity Receive System

A600 Physical Characteristics

General:
- System Type: High-Gain Cavity Array
- Main Antenna: One (1) High-Gain Offset Fed Truncated Parabolic
- Diversity Antennas: Five (5) Medium-Gain, Slotted Dipole
- Down-Converters: Six (6) UHF Down-converters with LNA.
- Receiver: DVB-T/COFDM
- Multi-Input Maximal-Ratio Combining (MRC) ASI Output

System Interface:
- Connection: Single Control Cable
- Control: Serial RS485
- Power: 28 vdc (3 Amps) or 110 / 220 VAC
- Outputs: 2 ASI, 75 ohm
- Control Device: S-Type Site Controller (S750, X750)

Options:
- Self-enclosed Remote Panel Antennas
- Multi-Bands Available (up to quad band)
- Dual Receiver Mode (High-Gain / Five-Channel Diversity)
- Filtering per System Requirements
- Bidirectional Systems Available

Main Antenna:
- Type: Offset Fed Truncated Parabolic
- Frequency: 1.4 GHz to 15GHz
- Gain: 18 dB to 33 dB (Dependant on Frequency)
- Antenna Polarization: Vertical (Quad Polarization Optional)
- Steering Azimuth: Continuous Rotation, Max Speed 60 Degrees/Second
- Steering Elevation (Optional): Steering + 35 to 5 degrees (Recommended above 3GHz)

Diversity Antennas:
- Type: Cavity Backed Dipole
- Number: Up to Five (5) Evenly Spaced Around the High-Gain Antenna
- Antenna Gain: 12 dBi minimum (Frequency Dependant)
- Antenna Polarization: Vertical (Quad Polarization Optional)
- Antenna Beamwidth: Azimuth 75° / Elevation 38°

Block Down Converter:
- RF Frequency Range: 1.4 GHz to 15GHz
- RF Input VSWR: <1.5:1
- IF Frequency Range: 810 – 300 MHz
- RF Input Impedance: 75 ohms
- Noise Figure: <3.0 dB

Receiver/Demodulator:
- Main:
  - Transport stream: Six (6) Channel UHF COFDM RX
  - Multi-Input Maximal-Ratio Combining (MRC)
  - ASI
  - Serial Control via Troll Control System
  - COFDM num of Carriers: 2K
  - Modulation Types: QPSK, 16-QAM & 64-QAM
  - Forward Error Correction: 1/2, 2/3, 3/4, 5/6, 7/8
  - Guard Intervals: 1/32, 1/16, 1/8, 1/4
  - Input Frequency: 49 - 862 MHz
  - Input Impedance: 75 ohm
  - Bandwidth Selections: 6, 7 or 8 MHz
  - Decryption Options: AES- 128/256

DMR600 - IP Based Receiver for Multi-Channel, Multi-Band Diversity Receive Sites and Distributed Receive Systems

Simple to Install One Fiber Cable to Troll’s S750 or X750 + DMR

Fiber Cable (Power, Control, Video/Data)

Controller

Remote Control

Video/Data Input/Output

Tracking - High-Gain, Panel Diversity System

Troll Systems Corporation  Valencia, California
Phone: 661-702-8900   Fax: 661-702-8901

THE DATA LINK EXPERTS

100% MADE IN USA

www.TROLLSYSTEMS.com

1-800-999-4695

1-800-999-4695

1-800-999-4695