

GROUND-BASED PRODUCTS

A600 Directional Diversity Receive System

The A600 is a brand new antenna/receive system developed for the digital diversity age. Troll's all-in-one package addresses the complex requirements of the receive network from installation to operation. It has been designed to:

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

Installation

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

Performance

Using six (6) 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 links, all with the minimum of operator interaction.

Operation

The A600 allows you to **concentrate on the content, not 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 initial capture via the panel antennas, the automatic peaking of the directional antenna, and the complete optimization of the system. No antenna system looks like this or performs like this.

Typical applications include

- Electronic News Gathering
- Defense Infrastructure
- Military Surveillance
- Airborne Law Enforcement

Hybrid Option- Two Receive Systems in One

Dual receiver (single high-gain, five channel diversity).

Other Options include multi-bands, external panel antenna, customized filtering.



XNG™ A600 Directional Diversity HD/SD Receive System

- ▶ Easy to Operate and Install
- ▶ Fully Self Contained
 - ▶ Antenna
 - ▶ Receiver
 - ▶ Control
- ▶ ASI Transport Output
- ▶ Long and Short Range Operation
- ▶ Multi-Path Immune
- ▶ Self Optimizing/Auto Tracking



XNG™ Directional Diversity Receive System

A600 SYSTEM SPECIFICATIONS

Antenna / Receive System Configuration

General

System Type	XNG™ DiversaTroll High Gain/Cavity Array
Main Antenna	One (1) High Gain, Parabolic Type
Diversity Antennas	Five (5) Medium Gain, Slotted Dipole Type
SHF Down-Converters	Six (6) 2G to UHF Down-converters with LNA. (4.9 and 7 GHz options)
Receiver	Six (6) UHF COFDM Multi-Input Maximal-Ratio Combining ASI Output

System Interface

Connection	Single Control Cable
Control	Serially RS485
Power	28 vdc (3 Amps) or 110 / 220 VAC
Outputs	2 ASI, 75 ohm
Control Device	S Type Site Controller (S750/S850/30)
Options	Remote Panel Antennas Multi-Bands Available Dual Receiver Mode (High Gain / Five Channel Diversity) Filtering per System Requirements

Main Antenna

Type	Parabolic
Frequency	1.9 - 2.5 / 4.9 / 6.5 - 7.2 GHz
Gain	20 dBi / 22 dBi / 26 dBi
Antenna Polarization	Vertical (Quad Pole Optional)
Steering (Az)	Continuous. Max Speed 60 Degrees/Second

Diversity Antennas

Type	Cavity Backed Dipole Array
Number	Five (5) located equally around the High Gain Antenna
Antenna Gain	12 dBi minimum (Frequency Dependant)
Antenna Polarization	Vertical (Quad Pole Optional)
Antenna Beamwidth (Az)	75 degrees AZ and 38 EL

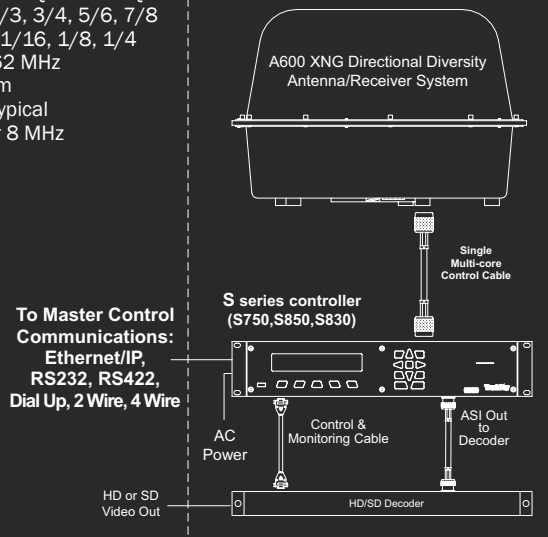
Block Down Converter

Type	Single Down-Conversion with Inversion
RF Frequency Range	1.9 - 2.5 GHz / 4.9 / 6.5 - 7.2 GHz
RF Input Impedance	50 ohms
RF Input VSWR	<1.5:1
RF P1dB (in)	-22 dBm
IF Frequency Range	810 - 300 MHz
RF Input Impedance	75 ohms
RF Input VSWR	2:1 minimum
Noise Figure	<3.0 dB

Receiver/Demodulator

Main	Six (6) Channel UHF COFDM Rx, Multi-Input Maximal-Ratio Combining
Transport stream	ASI
Control	Serial through Troll Control System
COFDM num of Carriers	2K or 8K
Modulation Types	QPSK, 16-QAM & 64-QAM
FEC	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
Noise Figure	7 db Typical
Bandwidth Selections	6, 7 or 8 MHz

Typical Set-Up Receive Site



Visit us at our web site for a product and corporate information session. See video imagery from this system.

www.trollsystems.com

Troll Systems has a policy of continuous product improvement. Specifications are, therefore, subject to change without notice.

Local Control



Troll's S750 Controller

Airborne Video Downlink - TX/RX



Troll's Master Controller

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