

MANUFACTURED BY TROLL SYSTEMS
THE DATA LINK EXPERTS

Directional Sector Antenna Troll's A1

The A1 is a ground sector antenna designed to provide approximately 60° of coverage. The A1 is lightweight and easy to mount on buildings or the sides of towers. The A1 is designed to be installed around a structure to create an overlapping high-gain reception system. Multiple A1s can be used to form a 360° diversity antenna system capable of up to 15dBi of gain in any one direction when positioned correctly.

The A1 can be purchased in either single or multi-band versions. It incorporates a high-performance down-converter that has exceptional selectivity and noise figure characteristics. This enables the A1 provide a UHF output regardless of the input frequency. Power for the A1 is provided through coaxial cable that connects the antenna to the diversity receiver.

The output of each antenna is fed into Troll Systems' DMR receiver capable of selecting the correct antenna for maximum performance. Troll's new DMR series receivers provide from two to eight antenna inputs.

Benefits

- Lower installation costs
- Reception on up to three frequency bands simultaneously
(one set of antennas – separate receiver per band)
- Packet-based IP distribution
- 1.4GHz to 7.1GHz down-converted to UHF Band
- Ethernet backhaul capability (from DMR)



- ▶ 1.4 to 7.1GHz in bands
- ▶ Compact - lightweight
- ▶ Single to tri-band options
- ▶ Internal BDCs and filters as required
- ▶ Multiple pipe mounting options
- ▶ Up to 15dBi gain



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TROLL PRODUCTS ARE
MADE IN USA

A1 Sector Antenna - Single to Tri-Band

Compact, Sector Antennas for High-Gain Diversity Systems

A1 Specifications

System Properties

Connection:	TNC for RG6 Cable
Control:	NA
Input Power:	Power over coax 11-32VDC
Input Current:	3W
Output:	UHF
Control Device:	Troll DMR Series Diversity Receiver

Antenna Characteristics

	Low L Band	High L Band	S Band	Lower C	Upper C
Type:	Dual Can	Dual Slot	Dual Slot	Quad Slot	Quad Slot
Mid-Band:	1.4-1.5 GHz	1.7-1.9 GHz	2-2.5 GHz	4.4-5.0 GHz	6.4-7.1 GHz
Beamwidth:	65° AZ / 35° EL	63° AZ / 33° EL	60° AZ / 30° EL	63° AZ / 14° EL	60° AZ / 12° EL
Antenna Gain:	11 dBi	12 dBi	13 dBi	14 dBi	15 dBi
Polarization:	Vertical	Vertical	Vertical	Vertical	Vertical

Block Down Converters

RF Frequency Bands:	1.2GHz - 7.2 GHz (specify frequency range)
IF Frequency Range:	150 - 900 MHz
Noise Figure:	L-S Bands < 2dB C Bands < 3 dB
Gain:	35dB nominal

Environmental

Operating Temperature:	-15C to + 55C - 40C to + 80C
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Mechanical

Dimensions	8.7" W x 20.7" H x 5.4" D
Weight:	8lbs
Mounting:	2" to 4" pipe mount
Downtilt Bracket:	+ 20° to - 20°

Specifications subject to change without notice.



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