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**Made in the United States of America
Performance Tested in Partnership with NASA**

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Paradigm Shift Technologies Group Presents **Target: Sat** A Global Satellite Antenna Positioning Instrument



Target: Sat received a United States Patent March, 2003 and is used by professionals around the world to determine satellite antenna placement for maximum transmit/receive abilities before undertaking the physical satellite antenna placement. Target: Sat determines the best line of sight to the satellite spacecraft to insure positive results or preview negative results that could be encountered after the permanent Antenna placement is completed. The instrument mounts upon a standard camera tripod or can be used commercially using a commercial grade tripod and an optional cradle attachment for survey daily of multiple site locations. Furnished along with the Instrument is a specifically designed Global Targeting website program, designed To access all corners of the world and provide targeting information to Target:Sat for the placement of any satellite antenna. Constants updates are provided to this website for those who demand instant location information on a daily basis and are up graded every evening at 5 pm EST. The construction of Target: Sat uses environmentally safe and resistant space age materials to ensure maximum multi-year use in all environments. The unit is shipped in a special thermo plastic shockproof case to allow transport to any location and back safely.

Testimonial



Product Evaluation

Description of Product: Target-Sat is an instrument and a web site used to access satellite coordinates around the world:

A purchaser will enter the website, www.paradigmshifttechnologiesgroup.com, enter their user name and password and register their unit and then proceed to access the coordinates for any satellite spacecraft they wish to view in their region of the world and is available by entering the satellite spacecraft orbit slot, and the latitude and longitude of their location, by GPS or if U.S. residents, the satellite orbit slot and their mailing zip code.”

With the data received from the web site introduced into Target:Sat, it will provide the user the location to place their prospective antenna system.

Evaluation opinion: One of the first steps of the instructions is to call your local airport and request the magnetic variation of true north and the latitude and longitude of your location. There is also a link on their website that will calculate this information.

The user must refer to a chart printed in the manual for declination degrees to adjust the instrument. The user must have access to Internet to obtain needed information to use this device.

I found the instruction manual to be very concise and easy to use for persons familiar with this technology.

It seems to me this product would be well suited for professional installers, site surveyors and technicians. This device is an invaluable aid for the professional installer, taking all the guesswork out of the equation, therefore greatly reducing the chances of improper antenna placement. A prime example would be a deciduous tree that would allow signal to pass in the winter, and possibly result in a relocation of antenna in the spring.

Their product support web site is informative and easy to use. It provides a spacecraft-targeting platform that offers a global solution for aiming the instrument by allowing the user to input latitude and longitude data. The U.S., by simply entering a zip code along with the desired satellite orbit slot. Links are provided that will calculate magnetic variation for compass correction to true heading. Everything needed to use this instrument can be found on this site.

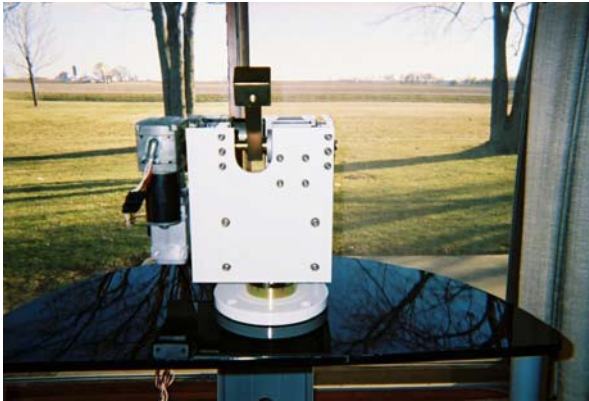
Donny Claypool, Winegard Company Product Coordinator

First Responder Trailer



- 20' length Heavy Duty Dual Axle Trailer with motorized Multi -Frequency Flat Satellite Antenna Array and motorized sun tracking Solar Array
- Electric Brakes
- 1 Kw Solar Power Panel system with accompanying advance battery design, eliminating the need for additional batteries
- 5 all Terrain Radial tire equipped

Dual Axis Motor Drive for the Multi-Frequency Antenna Array



The Dual Axis Motorized Drive system was filed for U.S. Patent in January 2011 and is patent pending at this time. The Dual Axis Drive serves two applications currently, one is for a sophisticated drive system as an option for the Multi

Frequency Antenna Array and the other to allow the Solar Wind product to track the sun, focusing the panels on the Sun's rays. Both applications use the same control electronics with only the program software different. The electronic control system allows the control to be shipped generically. When the unit is ready for operation, the program is downloaded by either the distributor or the consumer from www.paradigmshifttechnologiesgroup.com web site. Both programs can be downloaded for either product's use. The make up of the external drive outdoor components hardware allow easy field replacement due to simplistic design.

Removal of the drive from the location to repair is not needed. Cone drive Gear* and Thomson* actuators back all module drives. Gear module cost replacement is held down due to the Simplistic design. The units are installed with ease using simple hand tools and are environmentally resistant to corrosion. * Registered names of Thomson Linear LLC and Cone Drive Gear Inc.

Solar Wind Photovoltaic Array



The Solar Wind solar photovoltaic mount with Universal Solar panel aperture received a U.S. Patent May 20, 2008. The patent addresses a dual application by providing a simplistic application in which to contain solar panels of various sizes with in it along with quick assembly and mounting and with the added attributes of utilizing the newer thin film technology of future solar panel adaptations. It also doubles for a mounting System to carry the Multi-Frequency Satellite Antenna

Array. The novelty of this design is the simplicity of removing time consuming assembly and installation procedures and allow placement of solar panels without placement upon the Roofs of dwellings. The unit comes in environmental colors that do not detract from the residence and provides a more modern approach to alternative energy use. All materials used are environmentally safe and environmentally Resistant to decay and degradation. The use of marine grade fiberglass construction along with ductile iron casting and salt spray painting prevent corrosion from the environment. The unit can be additionally upgraded to accept higher panel voltages when the need arises in the future. The limited number of individual pieces required for the complete assembly accomplishes ease of shipping anywhere in the world.

Target:Sat Commercial Accessories



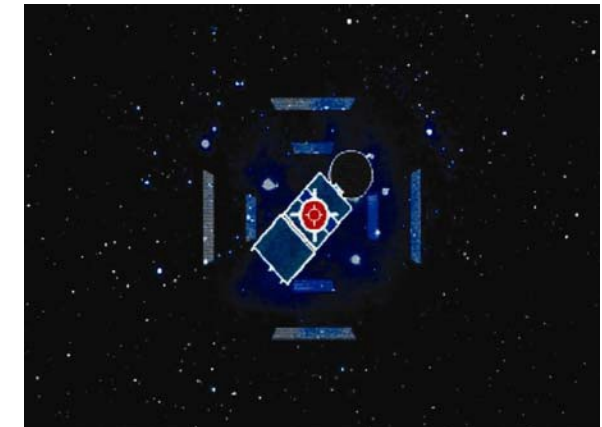
Commercial Tripod with Cradle



Laser Ground Positioner



Carrying Case



Web Based Global Spacecraft Targeting Platform Program

Techsupport@paradigmshifttechnologiesgroup.com

Other Satellite Products Available

Multi-Frequency Antenna Array

1.5 m
2.4 m



Global Multi-Frequency Flat Satellite Antenna Replacement for Parabolic Dish Designs

Turret Feed



The Multi Frequency Satellite antenna received a United States Patent April, 1996 and is used by professionals and consumers alike around the world to replace Parabolic satellite antennas for maximum receive abilities. The antenna provides a more aesthetic product that can easily be installed using simple tools with the added advantage of providing multiple frequency reception from Satellites around the world. Benefits are marine grade fiberglass construction, simple replacement of electronics and quick and environment resistant installation. Easily shipped anywhere in the world, it can be acquired in complimenting colors for scenery matching applications. The antenna was performance tested in partnership with NASA for professional and consumer applications.

Added advantages are compact size without loss of performance and comparable to much larger dish antennas in performance specifications. The product

is offered both in motorized or fixed single satellite reception applications. A performance sheet is enclosed with each antenna shipped.

Paradigm Shift Technologies Group Presents Summations and attributes from NASA/Glenn Test Completion of the ZPA

The two ZPA systems furnished to the antenna test range facility at NASA/Glenn in 2007 were the two sizes of 1.5m and 2.4m. Tests conducted there at the antenna range facility were Cross polarization, Co-Polarization, gain and noise temperature measurements of the two antennas. The Unique design of ZPA antennas permits an alternative design for replacement of the age-old current parabolic design used for satellite communications today. This antenna design allows manufacturing of antennas capable of meeting specific individual frequency requirements and permits an easy method of change out to meet other additional frequency needs as well by change out of the frequency insert. This specific frequency design allows a method for the ZPA to change frequency by changing inserts, replacing the existing frequency insert with one that is designed for that specific frequency needed. This quick and inexpensive method provides maximum performance results from the antenna for each individual frequency desired and permits a bandwidth over that specific frequency to accomplish these exacting specifications. This antenna system provides high performance reception over multiple frequencies and an over all reduction of antenna size, width and weight as well as ease of shipping and quick setup while maintaining these performance aspects for each individual frequency desired. The harsh environments of ocean, arctic, desert heat and high wind and sand climates; make the ZPA an ideal replacement to the age old dish antenna system on a global basis now.



Zone Plate Antenna (ZPA)

The Unique antenna design allows manufacturing of antennas capable of meeting specific individual frequency requirements and permits an easy method of change out to meet other additional frequency needs as well by change out of the frequency insert. This specific frequency design allows a method for the ZPA to change frequency by changing inserts, replacing the existing frequency insert with one that is designed for that specific frequency needed. This quick and inexpensive method provides maximum performance results from the antenna for each individual frequency desired and permits a bandwidth over that specific frequency to accomplish these exacting specifications. This antenna system provides high performance reception over multiple frequencies and an over-all reduction of antenna size, width and weight as well as ease of shipping and quick setup while maintaining these performance aspects for each individual frequency desired. Individual novelties of this antenna system make it an ideal replacement now for the current age-old parabolic design and its inherent drawbacks in parabolic antenna systems today. The novel ability to provide multi frequency use and specific frequency design along with the simplicity of inexpensive specific frequency replaceable inserts, provide current and future parabolic antenna users an alternative to the parabolic design. The ZPA is able to withstand the harsh environments of ocean, arctic, desert heat and high wind and sand climates; the ZPA is an ideal replacement to the age old dish antenna system on a global basis now.

The current available frequencies are C, X, S, X, Ku and Ka-band.

Specifications

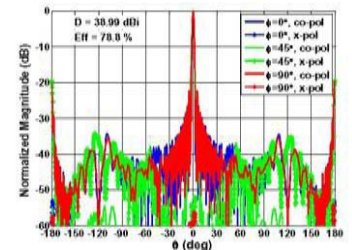
- Apertures from 1.4 meters to 2.4 meters.
- Optional multi feed with c / ku / dbs / ka frequencies offered, circular or linear formats
- Multi-Frequency design allows reception of 4 frequencies; C, Ku, Dbs and Ka frequencies
- Standard unit comes with polarotor 1 and 20 K Degree, Inb
- The 2.4 m antenna calculated gain is 38.99 db @ 3.9 GHz; the 1.5m antenna calculated gain is 35.5 db @ 3.9 GHz
- The measured gain @ 11.7 GHz is 44.2 db
- The antenna beam width is 1.5 degrees
- The antenna half-power beam width is 0.75 degrees

Features

- Modular Design allows for quick installation
- Turret feed design allows quick changes between C band and higher frequencies.
- Options are fixed or motorized applications
- Performance comparable with much larger parabolic systems
- Global applications for parabolic replacement
- Wind Tunnel Tested for high wind environments
- Maintenance free structure requires only occasional cleaning
- Design allows for easy global shipping
- 5 year warranty of all system components from defects in manufacturing and materials.
- Available in colors to match decor of installation environment.
- U.S. patent granted (U.S. Patent 5,512,913)

Theoretical Calculated Gain

Of 2.4m antenna @ 3.9 Ghz



Actual measured gain, 35.7 db @ 3.9 GHz.

Paradigm Shift Technologies Group
“Making the world a better place
through “Change” Man must advance,
evolution commands It “