

21cm Hydrogen
1 meter
Umbrella Radio Telescope

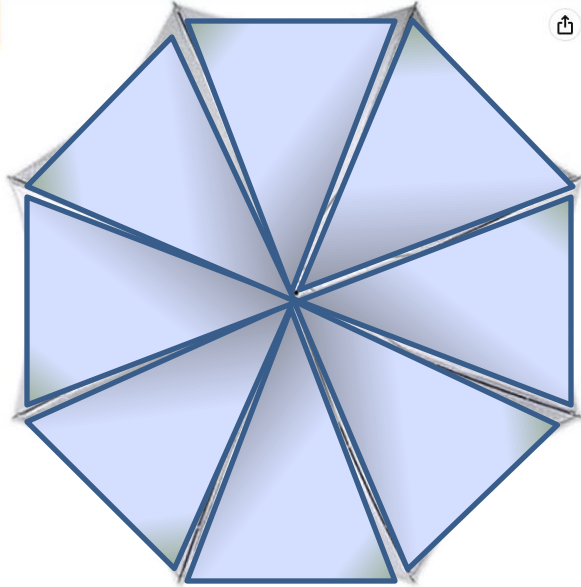
Design Goal :
balance

Cost Complexity Portability Performance



<https://www.youtube.com/watch?v=ymclkNnCeCc>

White Photo Umbrella at 21 cm



Westcott 2006 45-Inch

Brand: Westcott

★★★★★ 22 ratings

\$21⁹⁰

✓prime

FREE Returns

Get a \$100 Gift Card: Pay \$0.00 \$24
Prime Rewards Visa Card. No annual

Color Black

Brand Westcott

Style Umbrella

Item Dimensions 1 x 1 x 1 inches
LxWxH

Material Silver

About this item

- Easy to use and easy to carry when
- Reflects more light
- Easy to assemble/disassemble, cor

Additional Details

Small Business



This product is from a small bu
[Learn more](#)

This particular umbrella was selected as its spreaders arms and ribs are Fiberglass ..



Nickel Copper Faraday Fabric



rejopfad Faraday Fabric Nickel Copper Faraday Cloth 1 Yards(44 x 39inch) Conductive Material + Faraday Tape(65FT x 0.5inch), Shielding Fabric Cloth

Brand: rejopfad

New to Amazon

\$19⁹⁹

✓prime

FREE Returns

With Amazon Business, you would have saved \$156.94 in the last year. [Create a free account](#) and save up to 9% today.

Brand Rejopfad

Color Gray

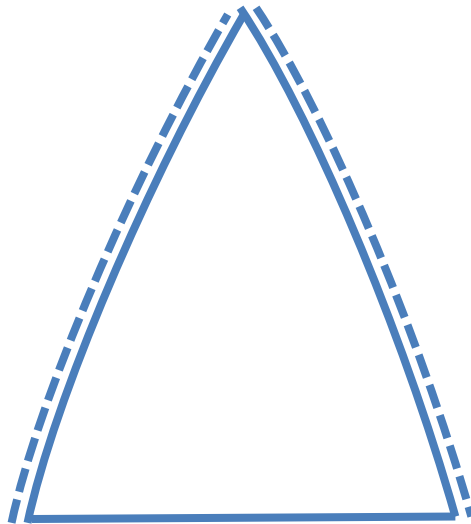
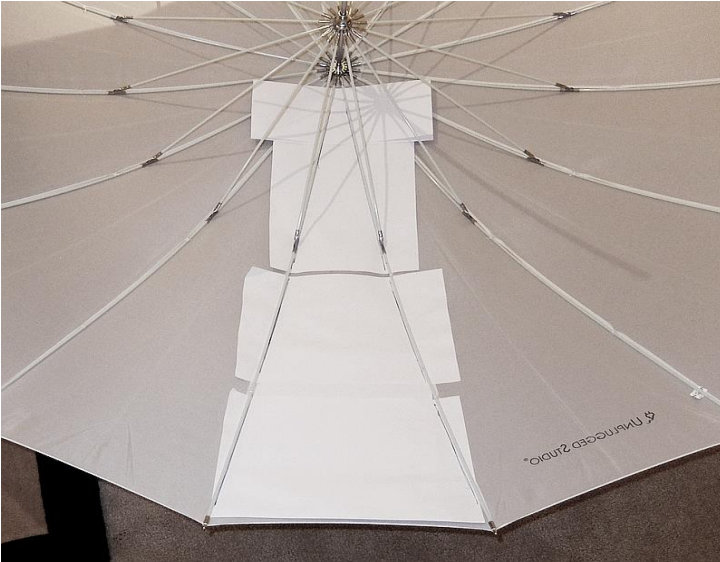
Material Copper

Number of Items 2

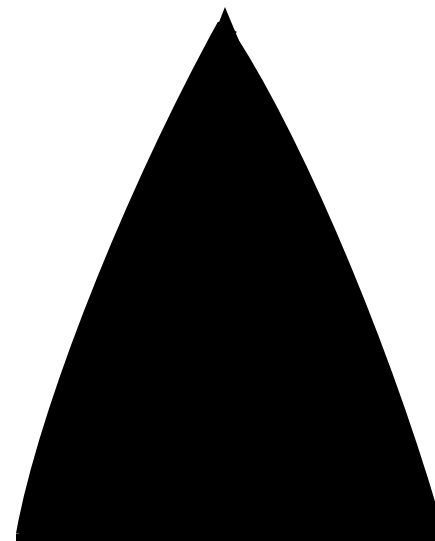
Water Resistance Level Waterproof

About this item

**Trace Shape on Paper & make a
Cardboard Template**

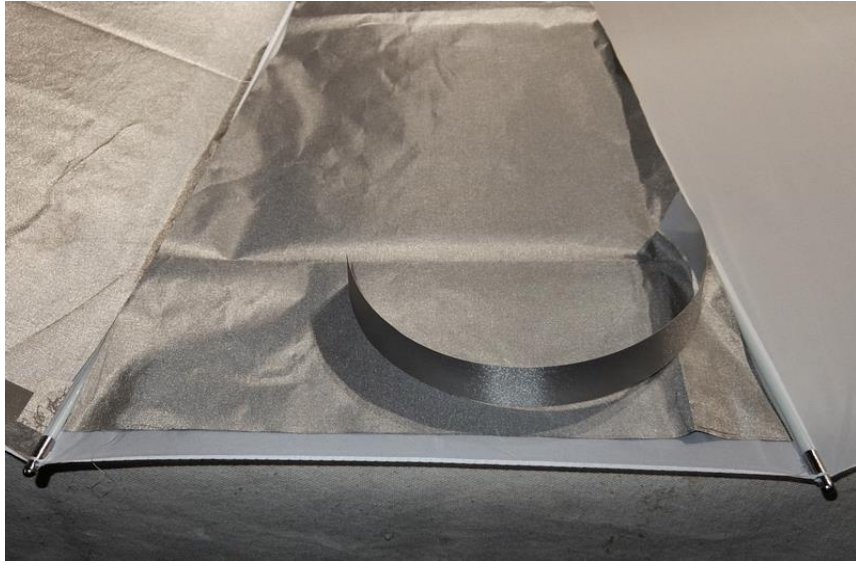


**Cut width 1/4" - 3/8" oversized to
Extend Under Ribs**



**Make a Cardboard or Foam Core Board
Template**

Align panel with ribs and attach with 1" tape at outer edge
Make small cutouts for rib <> umbrella tie strings



Spray umbrella then segment with contact cement
Protect previously installed panels



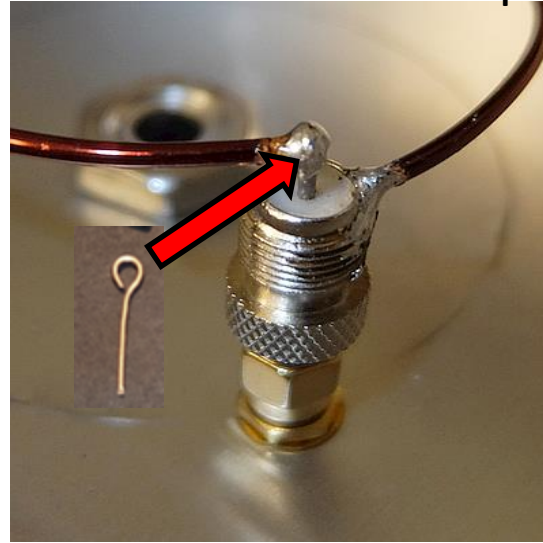
Use dry brush to install
Push edges of panel segment under ribs to overlap



1.42 GHz Loop Feed Antenna Fabrication

adapted from OM6AA design
http://om6aa.eu/Loop_Feed_with_enhanced_performance.pdf

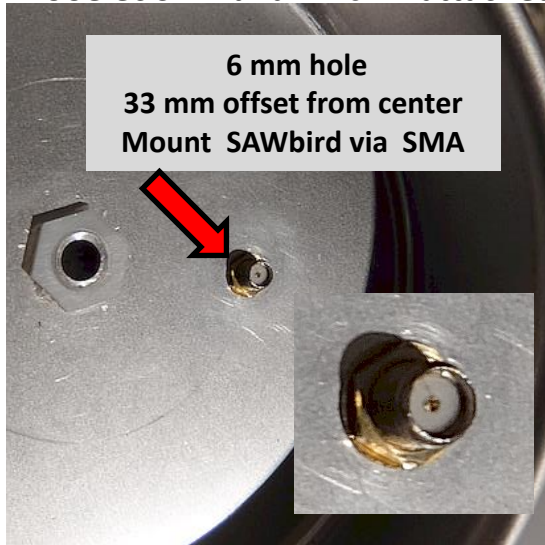
F-type <> SMA Adapter soldered to 21cm circumference wire loop



Completed Loop



nooelec SAWbird H1 SMA attached to 6" dia x 2" deep Cake Pan



Complete Loop Feed Assembly



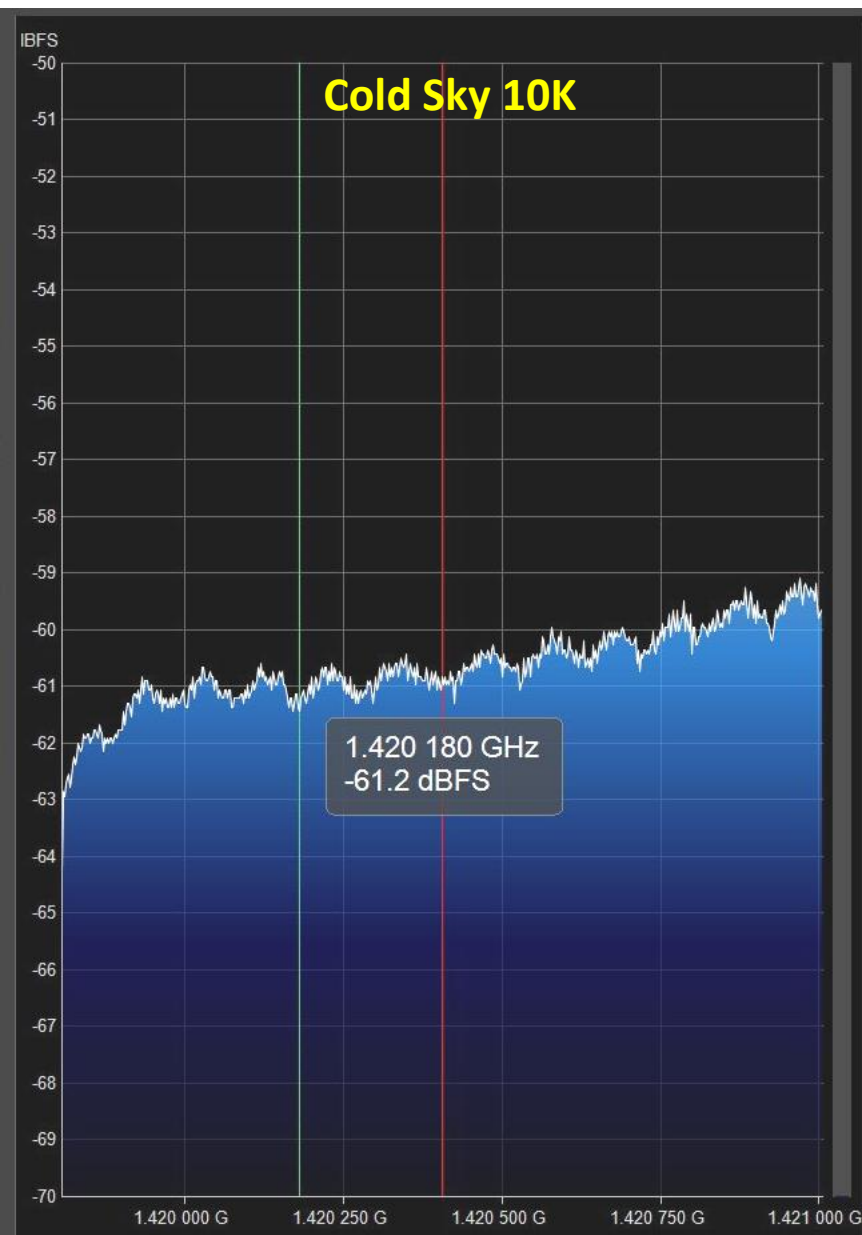
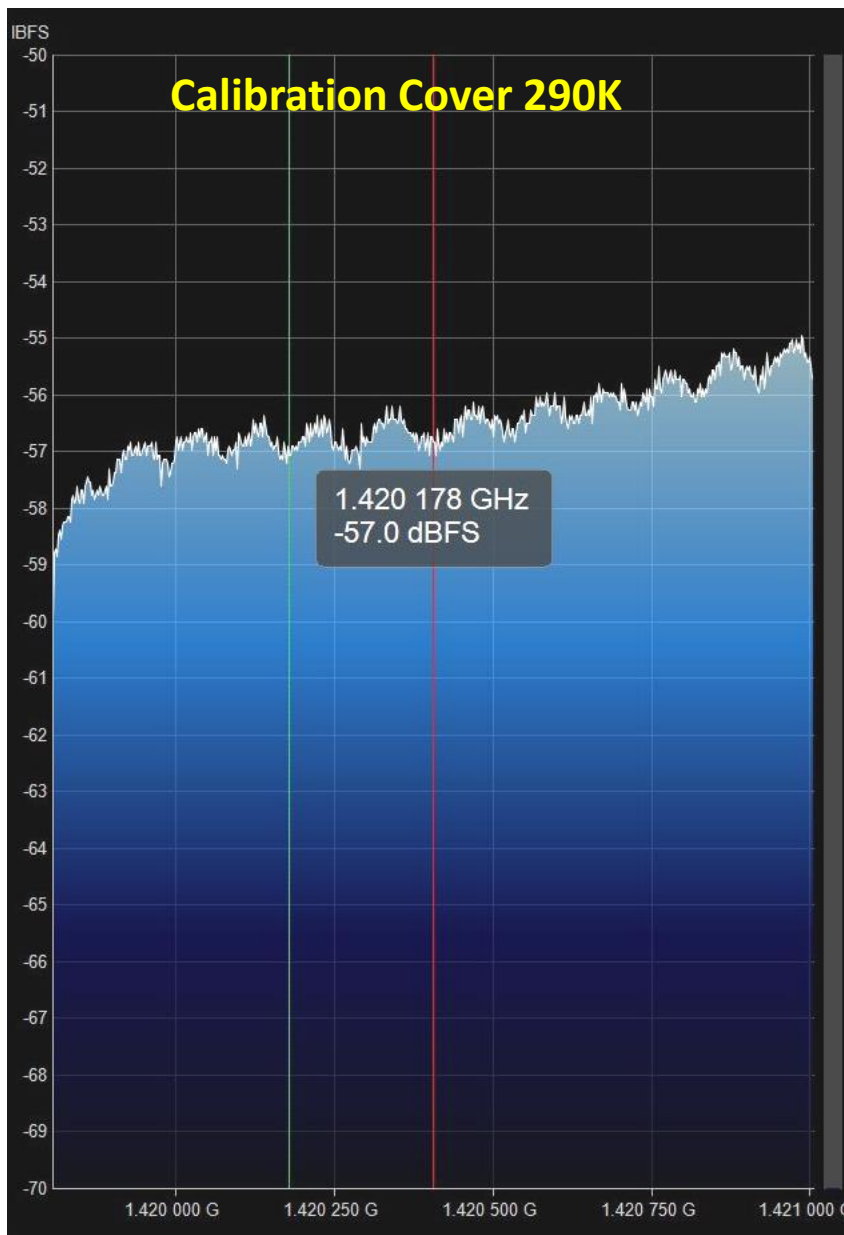




-57 dB

< Delta 4.2 dB >

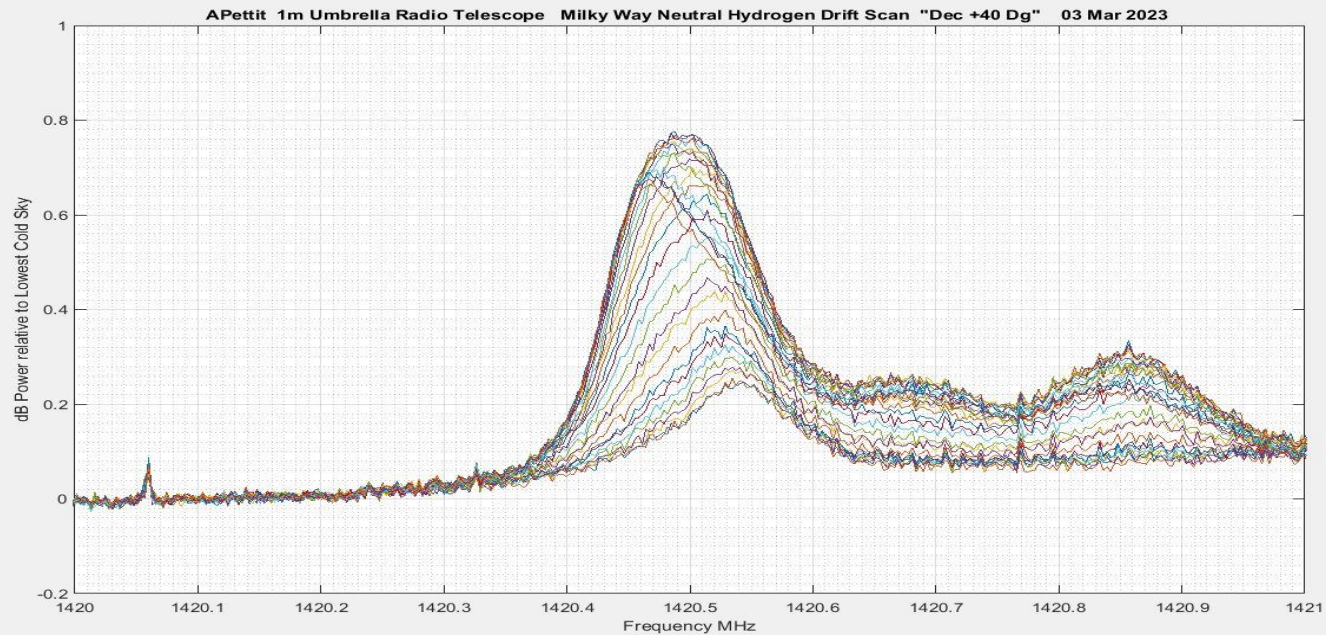
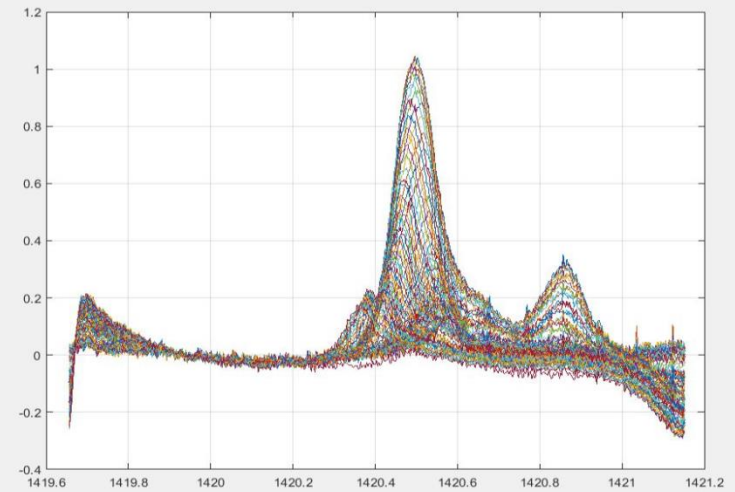
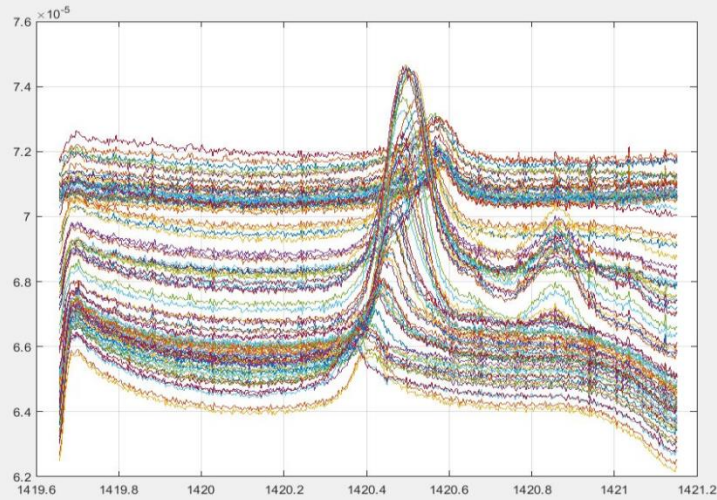
-61.2 dB



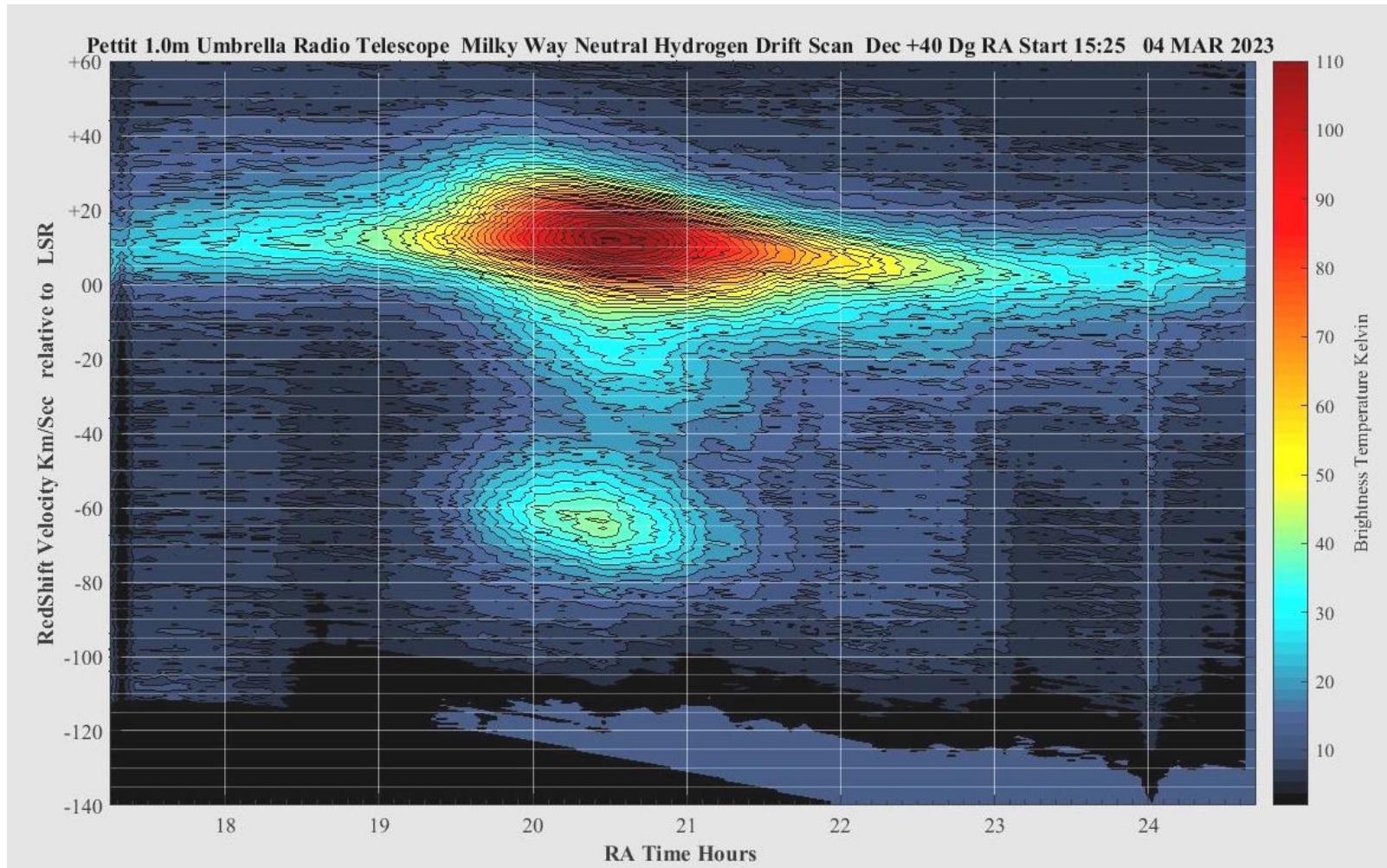
Declination + 40 Deg RA 20:30 Hrs



Pettit 1m Photo Umbrella Antenna 105 ea 5 minute / sample Scans



Declination + 40 Deg RA 20:30 Hrs





Parrish's Magic Line Round Cake Pan, 6 x 2

Brand: Parrish Magic Line

★★★★★ 243 ratings

\$9⁹⁹

✓prime One-Day

FREE Returns

Get a \$100 Gift Card: Pay **\$0.00** ~~\$9.99~~ upon approval for the Amazon Prime Card. No annual fee.

Size: **6 x 2 Inch**

6 x 1 Inch

--

6 x 2 Inch

\$9.99

✓prime

8 x 1 Inch

--



Boobrie SMA Coaxial Cable Connector SMA to F Coax Connector F Female to SMA Male Adapter for LAN / LMR Wireless Antenna Devices / RF Coaxial Cable / WiFi Radios External Antenna Pack of 2

Visit the Boobrie Store

★★★★★ 106 ratings

\$6¹⁹ (\$3.10 / Count)

✓prime One-Day

FREE Returns

With **Amazon Business**, you would have **saved \$156.94** in the last year. [Create a free account](#) and **save up to 5%** today.

Compatible Devices	Scanner
Connector Type	Coaxial
Connector Gender	SMA Male, Male-to-Female, F type Female
Brand	Boobrie
Number of Ports	1

Click image to open expanded view

Click image to open expanded view



MOOKEERF SMA Male to SMA Male Coaxial Cable 50 ohm KMR240 Coax Cable Ultra Low Loss Antenna Extension Cable with SMA Connector for 3G/4G/5G/LTE Network Equipment, GPS, RF Radio to Antenna

Visit the [MOOKEERF Store](#)
★★★★★ 30 ratings

\$19⁹⁹

✓prime One-Day

FREE Returns

With **Amazon Business**, you would have **saved \$156.94** in the last year.

[Create a free account](#) and **save up to 5%** today.

Size: **15 FT**

Roll over image to zoom in

2FT-2PCS

3 FT

3FT-2PCS

6 FT

10 FT

15 FT

KMR240 Cable Signal Loss and VSWR

Frequency	3FT	6FT	10FT	15FT	20FT	25FT	35FT	50FT	VSWR
1500MHz	0.29	0.58	0.96	1.44	1.92	2.4	3.36	4.80	≤1.15



Eowpower 270Pcs 8 Sizes Nylon Metric Sealing Washers Assortment Set

\$8.98

In Stock

✓prime & FREE Returns

☐ This is a gift [Learn more](#)

Style: Nylon

Qty: 1

Delete

Save for later

Add to list

[Compare with similar items](#)

[Share](#)

PMMA tube

The round pipe is made of PMMA material, with strong impact resistance and easy processing; Good insulation; Durable and long service life



MECCANIXITY Acrylic Pipe Rigid Round Tube Clear 8mm ID 12mm OD 305mm(12") for Lamps and Lanterns, Water Cooling System

Brand: MECCANIXITY

★★★★★ 86 ratings

\$6⁹⁹

✓prime
FREE Returns

Size: 8mm x 12mm

8mm x 12mm

9mm x 12mm

A Pettit 1m Photo Umbrella Antenna Dec +40 RA 20:30 Hrs @ 21 cm

