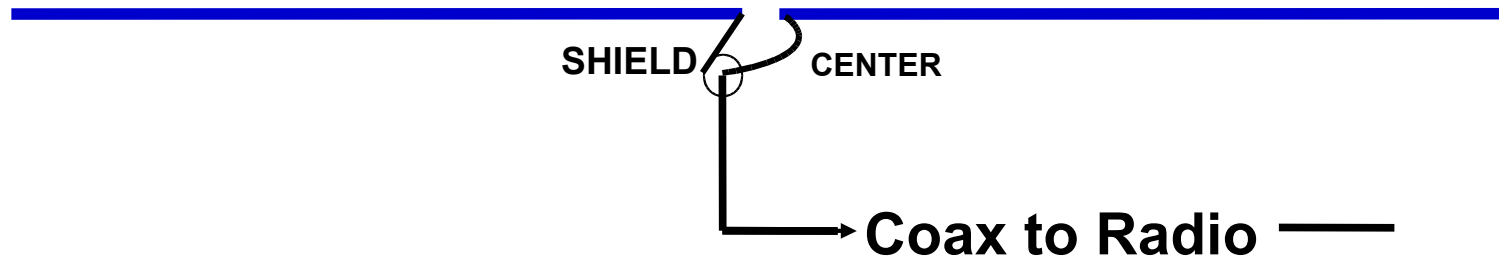


Ye Ol' $\frac{1}{2} \lambda$ Dipole



1λ LENGTH	$\frac{1}{2} \lambda$ LENGTH	RADIO
80 Meters	- 40 Meters Long	= 3.5 (MHz)
40 Meters	- 20 Meters Long	= 7 (MHz)
20 Meters	- 10 Meters Long	= 14 (MHz)



THE GREAT ANTENNA HEIGHT DEBATE!

IT HAS TO BE
**EXACTLY A
HALF WAVE HEIGHT!**

**NO, HIGHER
IS BETTER FOR DX!**

**LOWER IS
BEST FOR
PERFORMANCE!**



1/2 WAVE HEIGHT
SEE? IT'S SIMPLE!

**ANTENNA
HANDBOOK**

A 1/2 Wave Dipole
Starts to be Bi-directional
near 1/2 WAVE above ground

40M



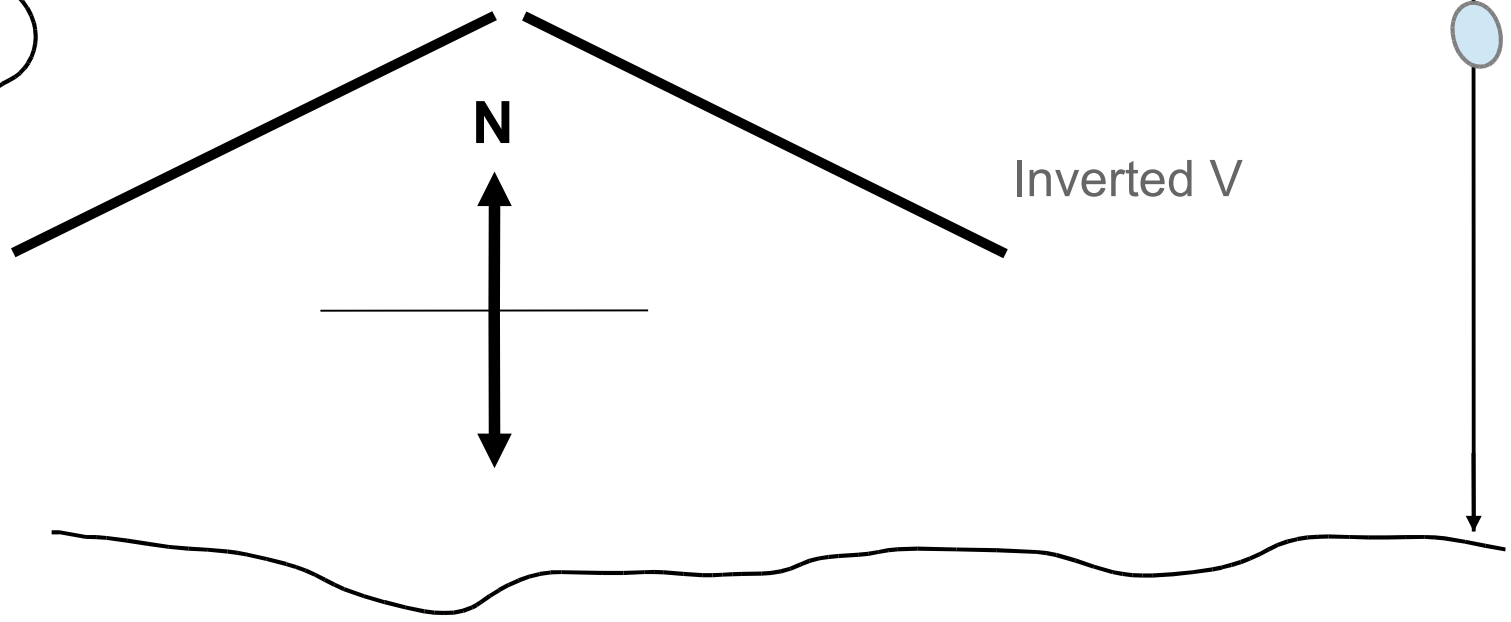
65'

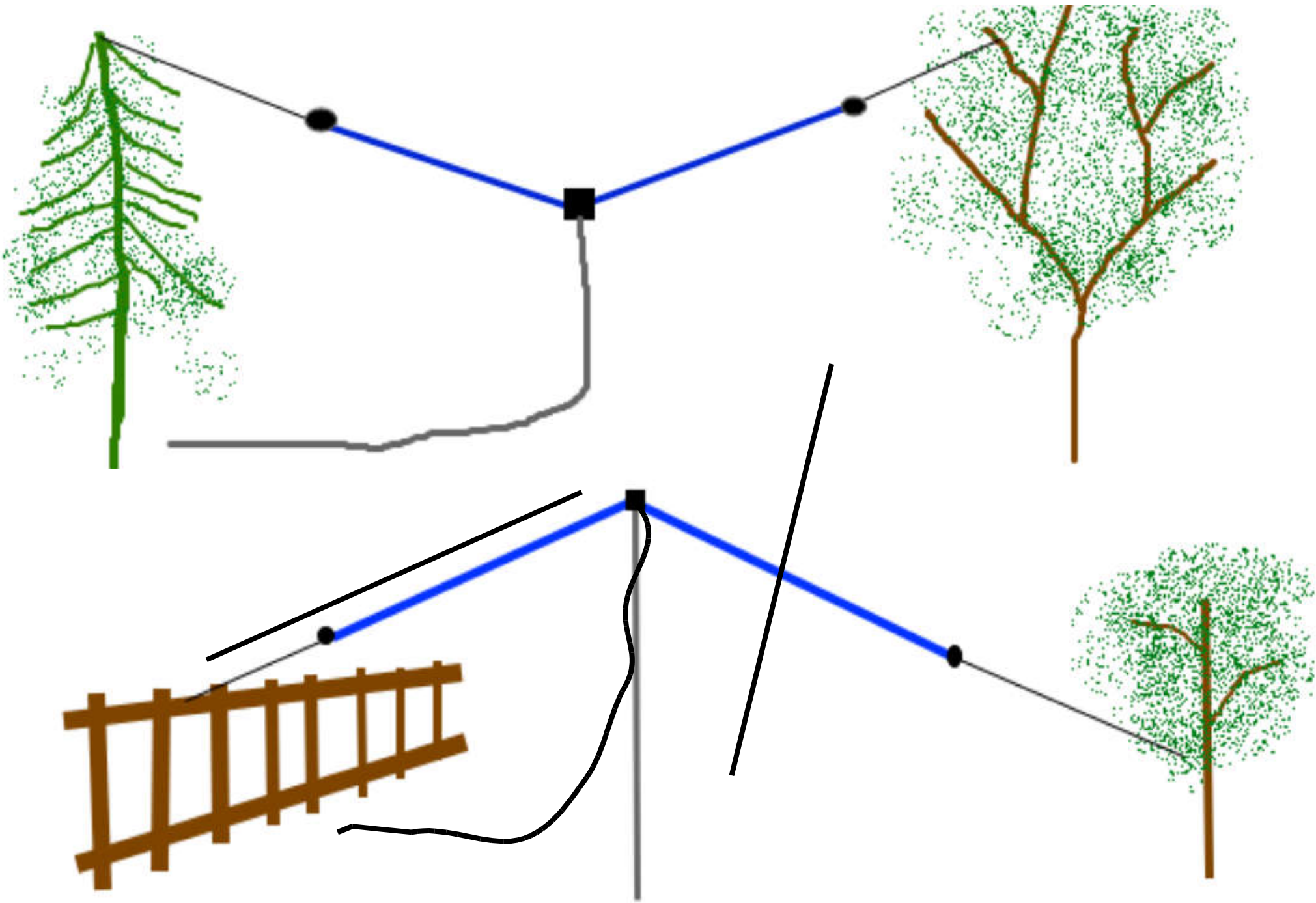
(468 / Freq Mhz)

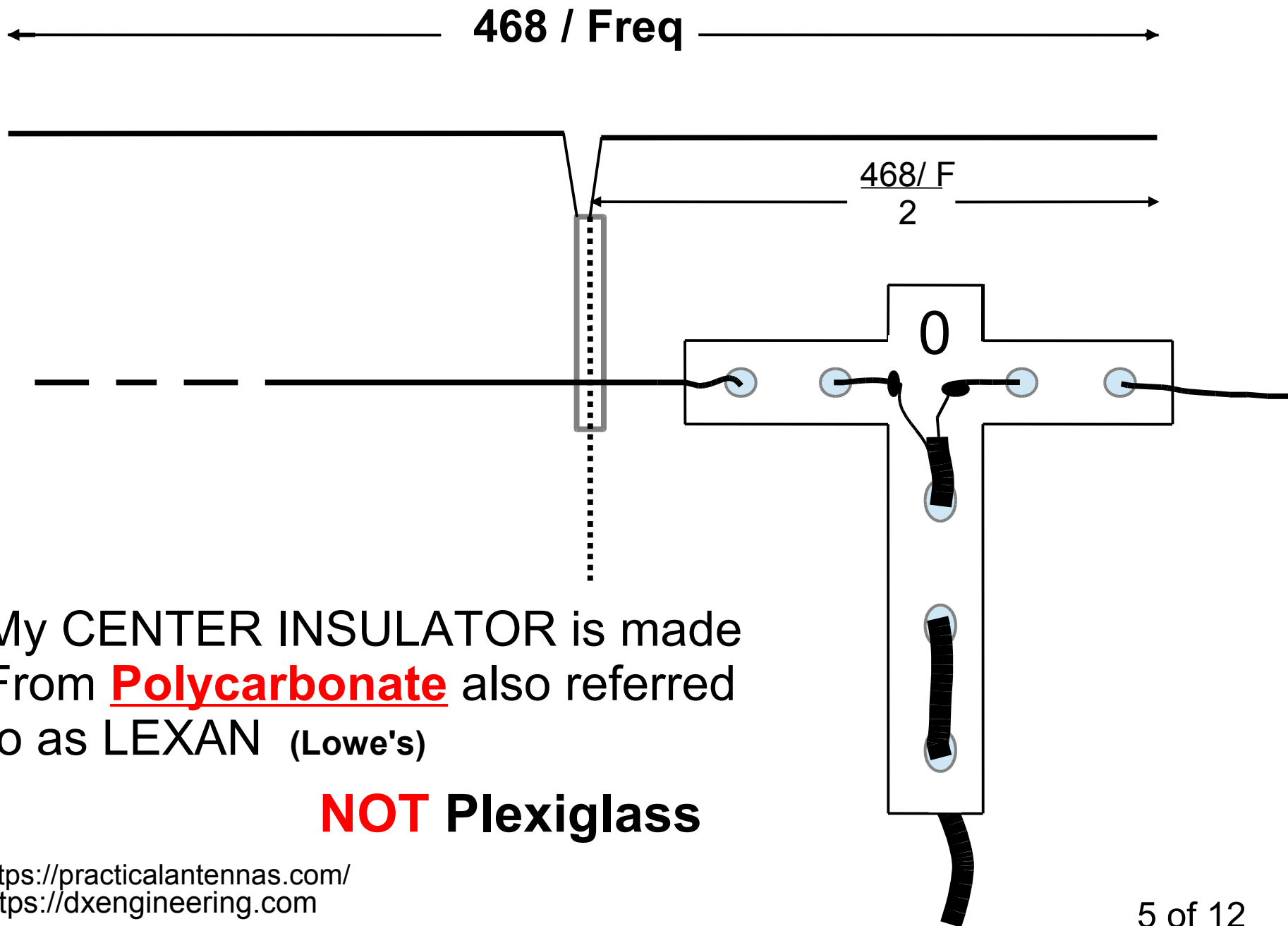
468 divided by **7.225** = **65** feet total length

Is it DIRECTIONAL?

468 ???







My CENTER INSULATOR is made From **Polycarbonate** also referred to as LEXAN (Lowe's)

NOT Plexiglass

Balun or **NO** Balun?

NO Balun on my 80/40 Dipole

I tried one once!

MY DXCC	<u>PHONE ONLY</u>	<u>80M</u>	<u>40M</u>
	Countries Worked	85	77
	Countries Confirmed	60	60

If you have unresolved RF issues,
a Balun MAY help?? NOT guaranteed.

How do you Say **BAL UN** ?

It's a contraction of **Bal**anced (dipole)
and **UN**balanced (coax)



So it is **NOT** “**BAIL**” - UN
Bail is how you get out of Jail !!!

DO I **NEED** A **BALUN**?

Reduces or eliminates radiation from the Coax ???
Supposedly sends more RF to the dipole elements

<https://www.dj0ip.de/balun-stuff/balun-overview/>

To Balun or **NOT** to Balun?

NO Balun on my 80/40 dipole

I tried one once!

**WIRE DIPOLE
MY DXCC**

<u>PHONE ONLY</u>	<u>80M</u>	<u>40M</u>
Countries Worked	85	77
Countries Confirmed	60	60

DXCC **ALL BANDS**
PHONE ONLY

Countries Available = 341

Phone Countries Worked = 303

Phone Countries Confirmed = 256

**ALL MODES
ALL BANDS**

341

326

308

Extended Double Zepp

A **multi-band** wire Dipole

Each Leg - 70' to 90' Works 80 – 10 Meters With a GOOD Tuner

Total Length in feet = $(984/\text{freq.}) \times 1.28$

40M EDZ = 80 - 10M

$984 / 7.225 = 136'$

$136' \times 1.28 = 174' = \text{total length}$

$174' / 2 = 87' \text{ each leg}$

20M EDZ = 40 - 10M

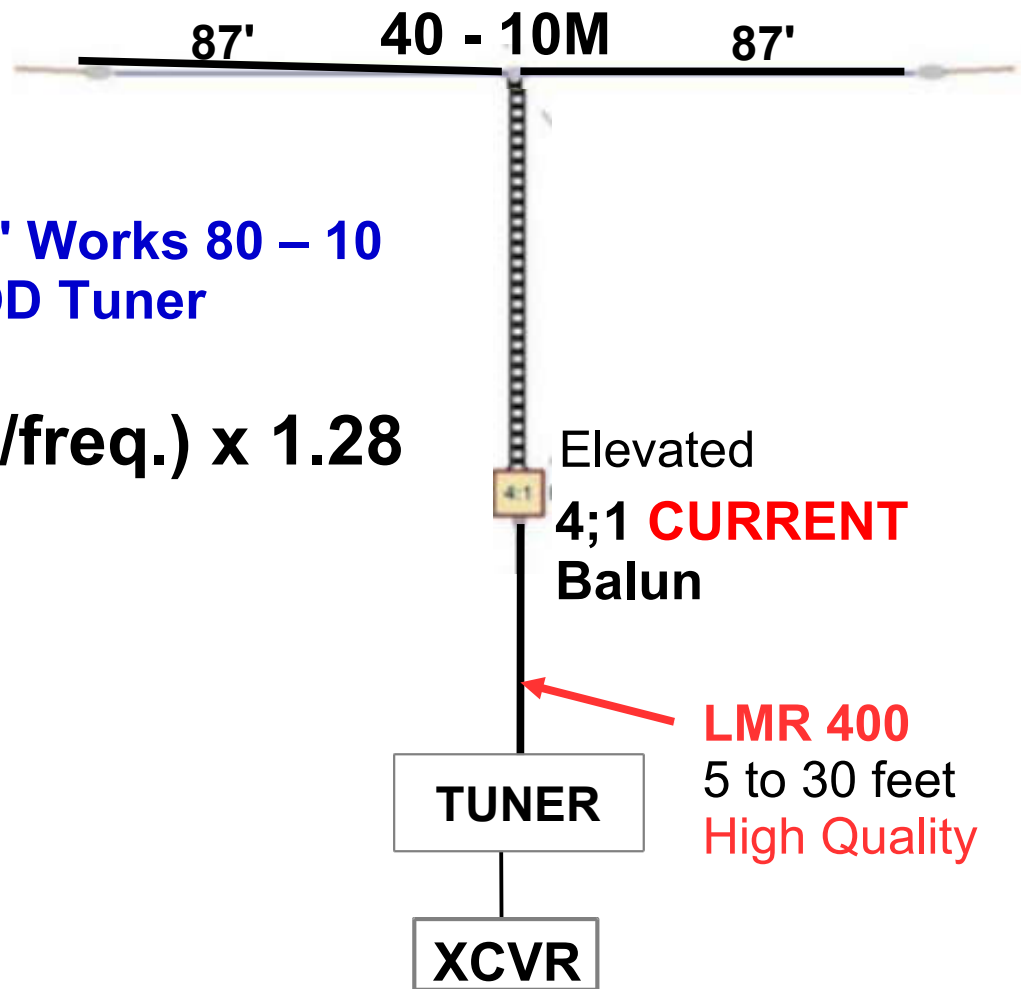
$984 / 14.250 = 69'$

$69' \times 1.28 = 88' = \text{total length}$

$88' / 2 = 44' \text{ each leg}$

1500 Watt

Tuner

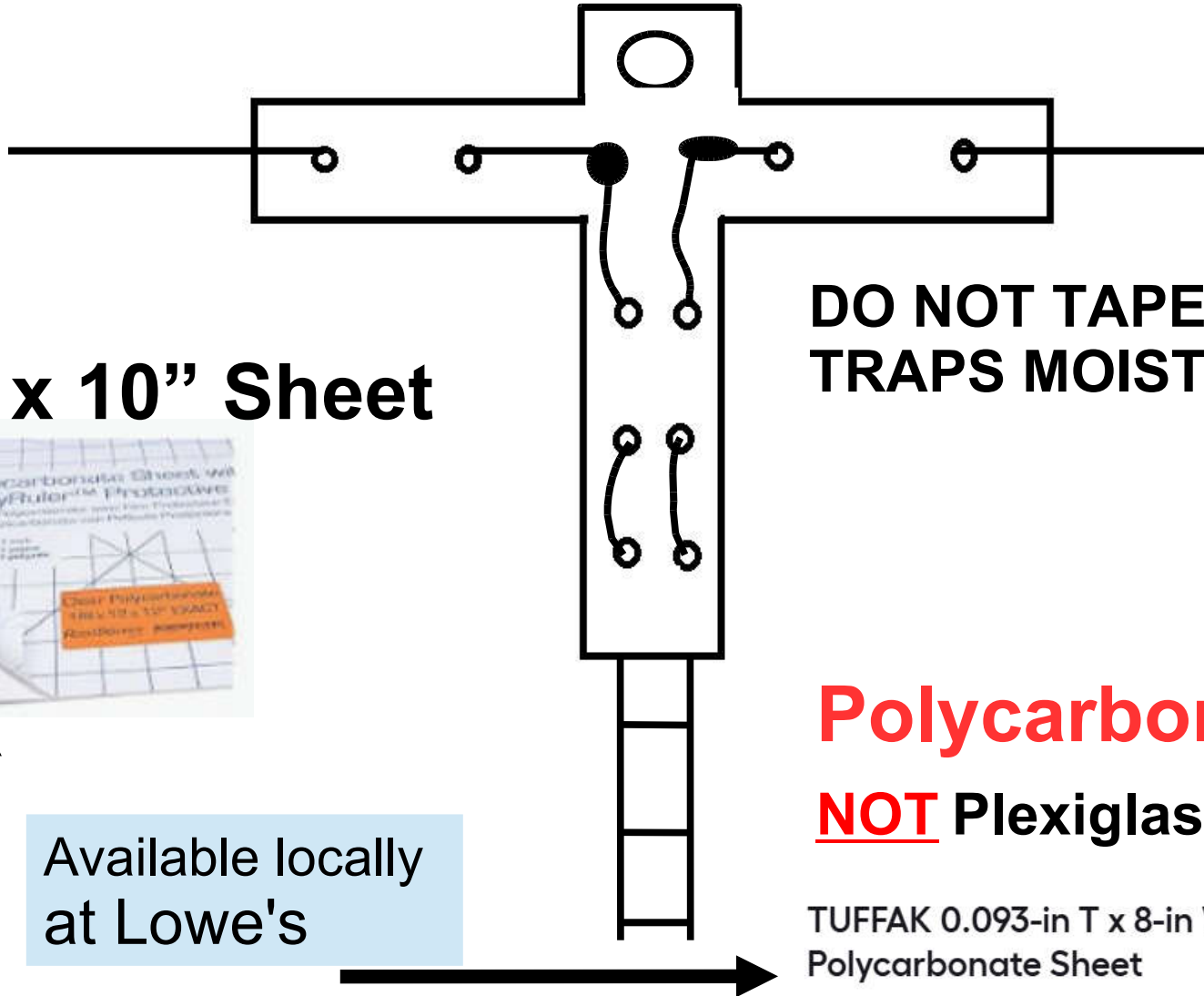


EDZ = about 3dB better than a dipole



Auto Tuner ????????

EXTENDED DOUBLE ZEPP



8" x 10" Sheet



Available locally
at Lowe's

DO NOT TAPE – TAPE
TRAPS MOISTURE

Polycarbonate/Lexan
NOT Plexiglass

TUFFAK 0.093-in T x 8-in W x 10-in L Clear
Polycarbonate Sheet

Item #72055 | Model #1PC0081A

\$7.98

Wire for a Dipole antenna

I use #14 or #16 electrical wire (Lowe's)
Yes it stretches a little over time.

Copperweld at DXEngineering etc. does Not Stretch

**Sun Resistant Rope for permanent
installs** Use ONLY **Polyester Rope**

- available from Lowe's, Home Depot
or DX Engineering etc.



100 ft. 1/4 in. **Polyester**
\$9.97 at Lowe's also at
Home Depot etc.

NEVER the cheaper Polypropylene

<https://www.servicethread.com/blog/the-uv-resistance-of-polypropylene-and-polyester-explained>

4:1 Current Balun



DX Engineering DXE-MC20-C4-1 = \$169.99
(5000 Watts)

GigaParts Intellitron AA-3913 = \$49.95 (300 Watts)



GigaParts LDG RBA-4:1 = \$29.95 (200 Watts)

#16
Stranded



450 OHM 16 AWG 19 Strands 100 FT.

Our price: \$89.36

www.dxhamradiosupply.com

THE END

**THANK
YOU**

QUESTIONS ???