



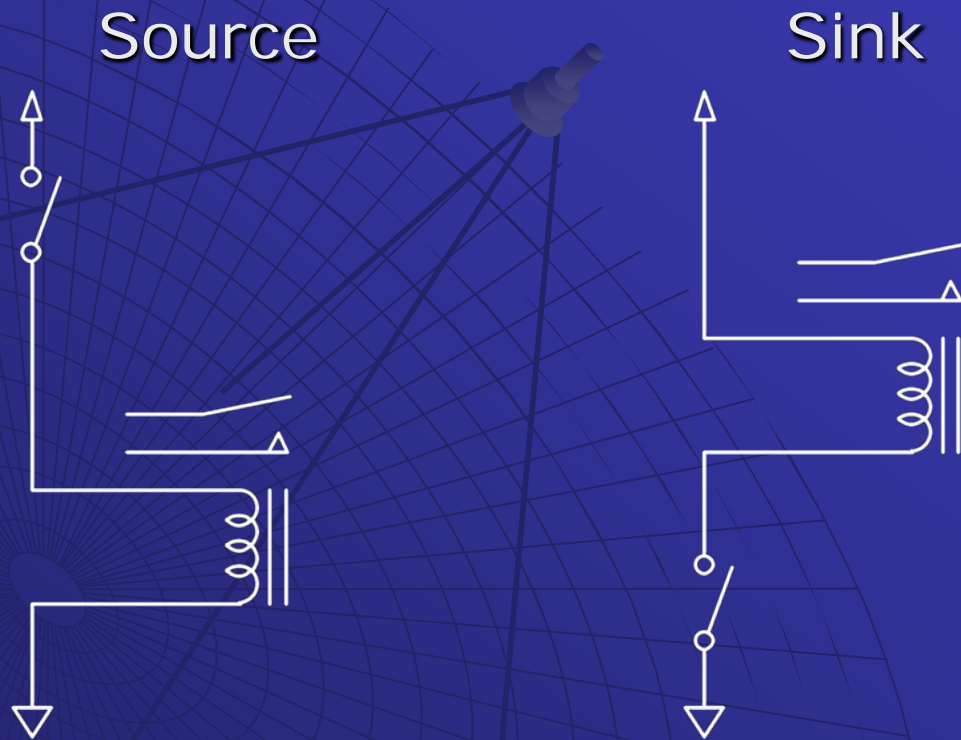
Antenna Switch Box

The new project

What is it?

- ◆ It is a box that connects to a PC and controls antenna switching relays.

Source and Sink



Features



I asked YCCC

I got answers...

Outputs

- ◆ All source
- ◆ All sink
- ◆ All relays
- ◆ 12, 24, 28 volt relays
- ◆ Fast relays
- ◆ Slow relays
- ◆ "I don't know" relays

Computer Interface

- ◆ USB
- ◆ Ethernet
- ◆ Works with DOS
- ◆ Works with external control box

Connectors

- ◆ RJ-45 connectors
- ◆ Not RJ-45 connectors
- ◆ DB-9
- ◆ Terminal strips
- ◆ Pluggable terminal blocks

Compatibility

- ◆ Works with QSK
- ◆ Works with Logging programs
- ◆ Works with parallel port programs
- ◆ Set up with jumpers

And more

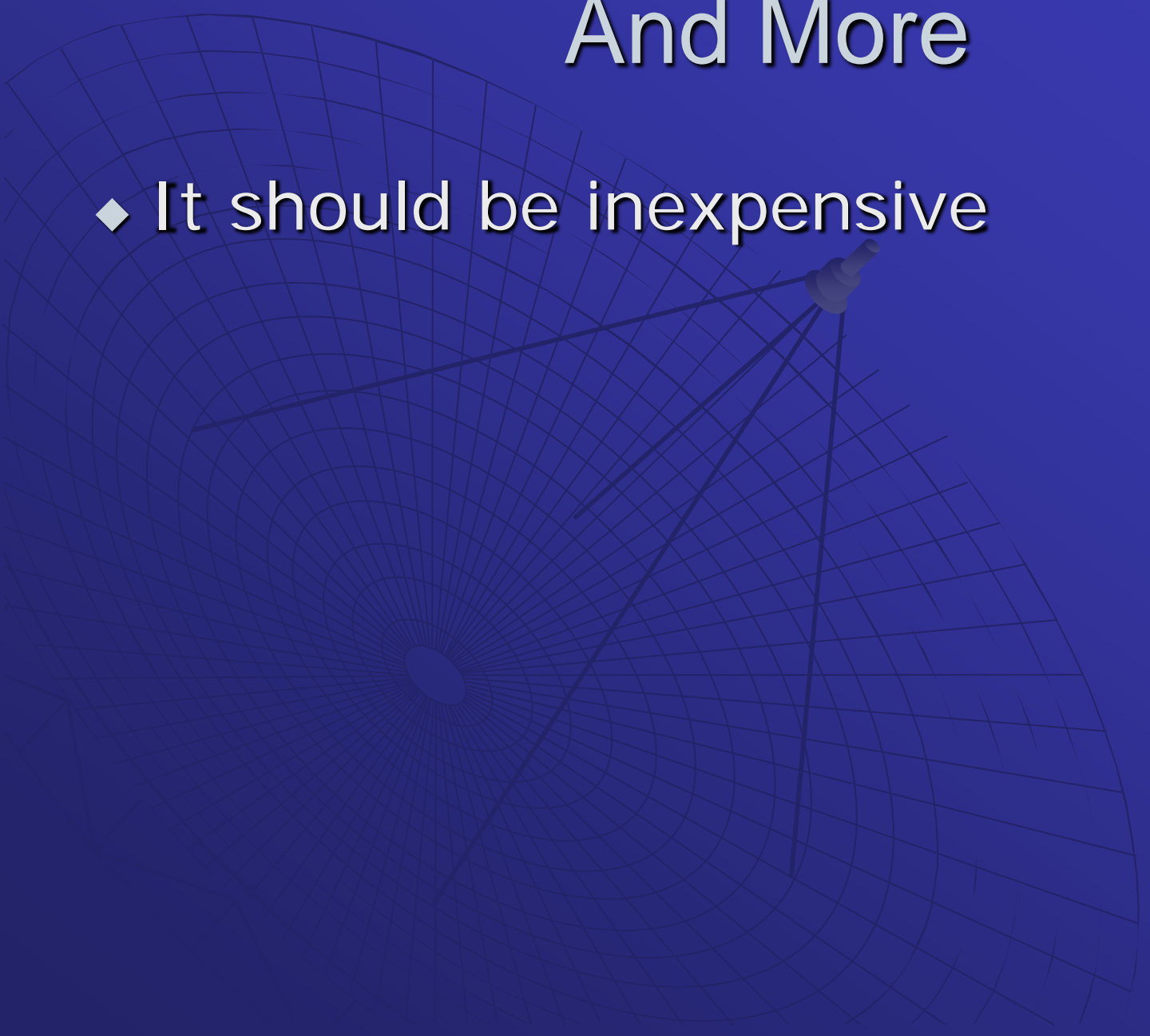
- ◆ Eight outputs is plenty
- ◆ More than 100 relays
- ◆ SO2R
- ◆ Three stations maximum
- ◆ Handle a small multi-multi
- ◆ Two boxes connected by a cable
- ◆ Wireless

And more

- ◆ Hot switch protection
- ◆ Separate transmit and receive antennas
- ◆ Sequencer
- ◆ LEDs
- ◆ Two radios on a band
- ◆ Shared amplifier

And More

- ◆ It should be inexpensive



Current Plans

- ◆ Big capabilities
 - Adds a bit to board and box cost
 - Can be partially populated
- ◆ 64 outputs
- ◆ 6 stations

Current Plans

- ◆ Source and Sink
 - Selectable in groups of 8
 - Decision made at build time
- ◆ No Relays
 - Outboard relay box as a separate project
- ◆ Supports 12 volt relays
 - May support 24/28 volt sink only

Current Plans

- ◆ USB Computer connection
 - Ethernet adds cost but not much value
 - RS-232 is so 20th century

Current Plans

- ◆ Hot-switching protection
 - Amplifier key lines
 - ◆ Monitored by antenna box
 - Transmit inhibit
 - ◆ Set by antenna box
 - Adjustable switch delays
 - ◆ Handles slow relays
 - ◆ Works with QSK
- ◆ Separate RX and TX antennas

Current Plans

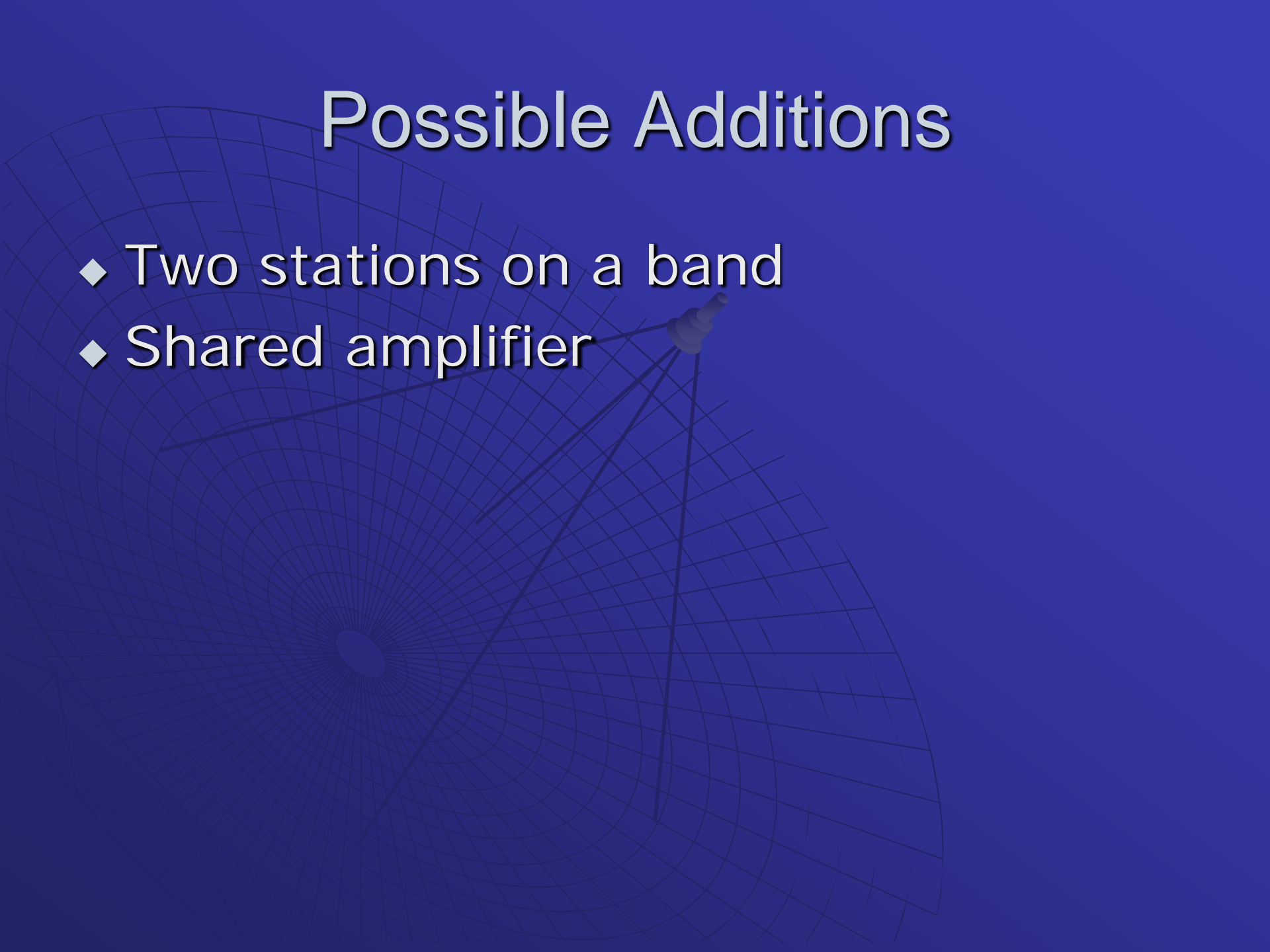
- ◆ PowerPole for 12 volt power
- ◆ RCA for amp key and inhibit
- ◆ Pluggable terminal block for outputs
 - Outputs are on top of the box

Current Plans

- ◆ Control program will interface with logging programs
 - N1MM Logger, Win-Test, WriteLog
- ◆ Multi-op client-server control program
- ◆ Possible hook for LPT band info

Possible Additions

- ◆ Two stations on a band
- ◆ Shared amplifier



Probably Not

- ◆ Sequencer
 - Most VHFers won't trust it
- ◆ LEDs
 - Expensive

Definitely Not

- ◆ DOS Compatible
 - Box could be modified for RS-232
- ◆ Two Boxes
 - Two units could be modified for this
- ◆ More than 100 relays
 - Use more than one unit

Definitely Not

- ◆ Works with external control box
 - Connect control box to computer
- ◆ Set up with jumpers
 - Set up with computer program

Construction

- ◆ All on one PC board
- ◆ No Wires
- ◆ Two surface mount parts
 - Pre-installed
- ◆ Pre-drilled box

Project Status

- ◆ Preliminary schematic
- ◆ Prototype code
- ◆ Starting to assemble development team
 - K1EP, WW1M, W1UE have volunteered
 - WC1M plans PC software work

The End

- ◆ I'm Outta Here
- ◆ See you on the bands
 - Work Me
 - Spot Me
- ◆ And thanks for your support