

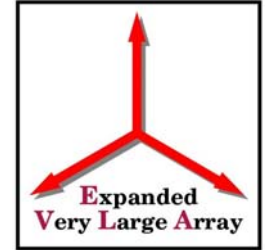
---

# Front End Issues

Paul Lilie



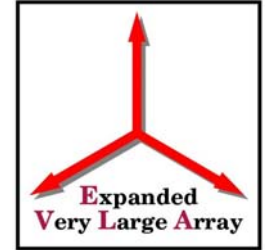
# Front End Issues



- 
- Ortho-Mode Transducers (“OMTs”)
  - Solar Observing
  - Receiver Schedule



# Front End Issues: OMTs



---

Octave Bandwidth Quad-Ridge OMT & 90° Hybrid  
for L, S, and C-bands

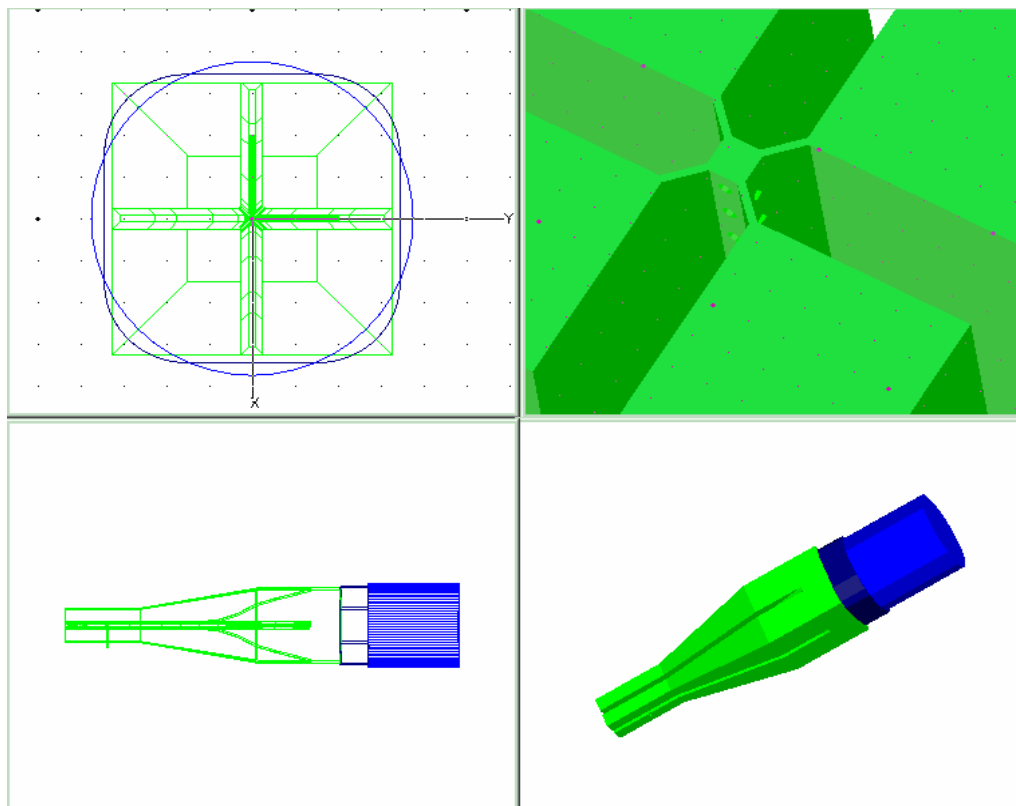
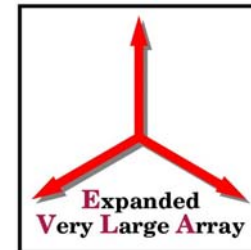
Four-Probe Design for X-band

Boiföt OMT & Phase Shifter for Ku, K, Ka-bands

Sloping Septum for Q-band

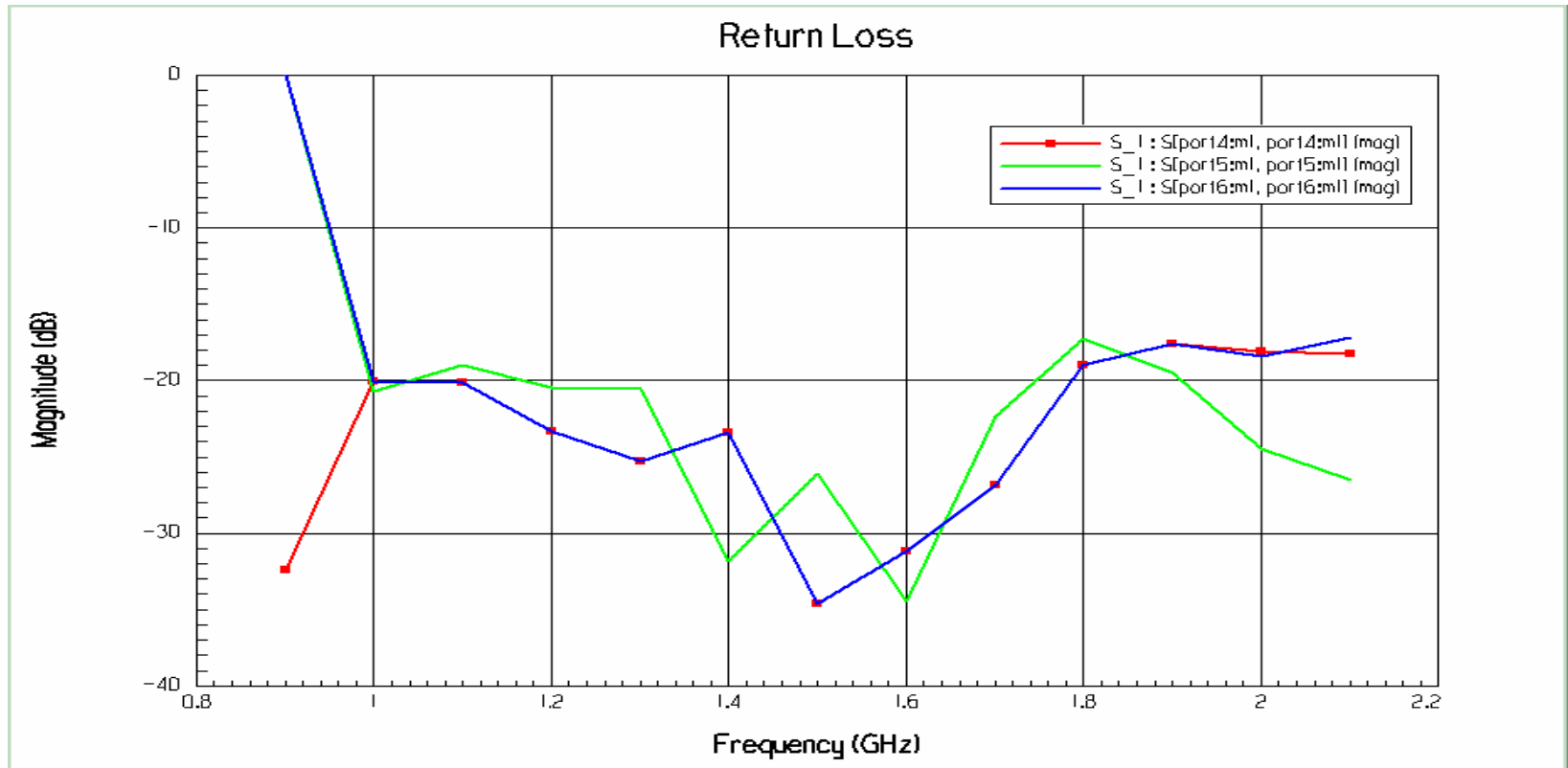
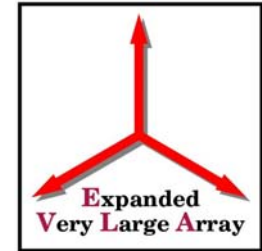


# Quad-Ridge OMT HFSS Model



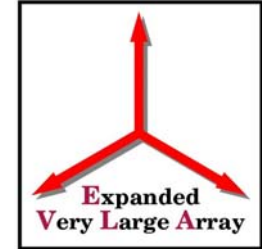


# Quad-Ridge OMT Simulation

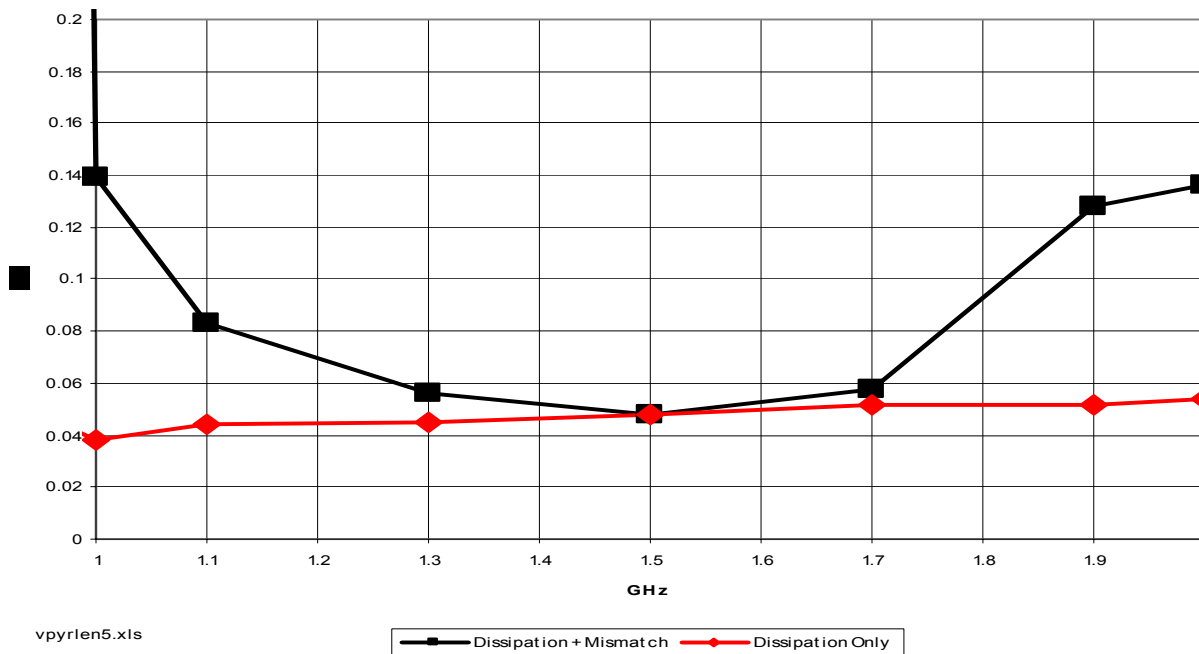




# Quad-Ridge OMT Simulation

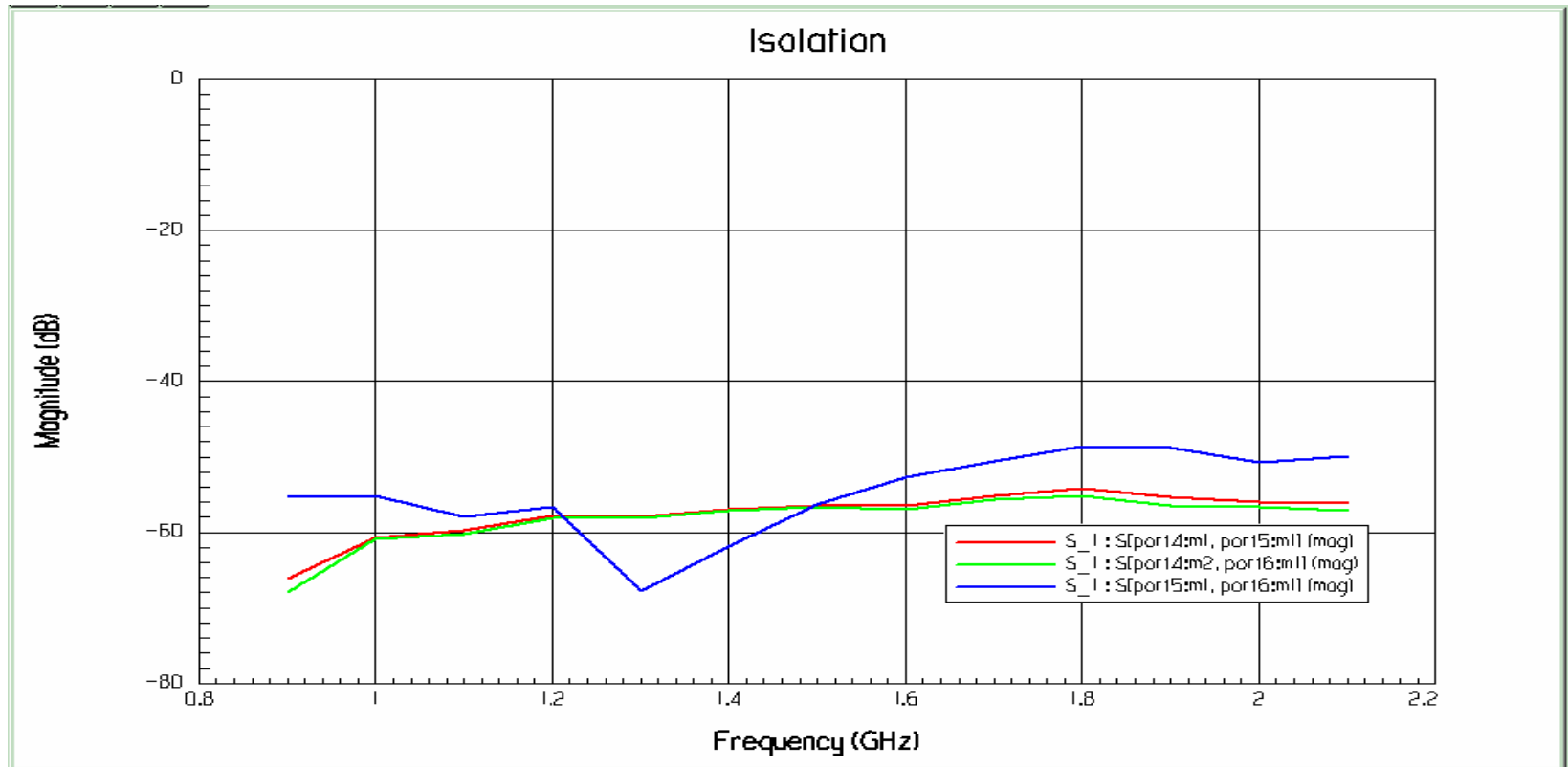
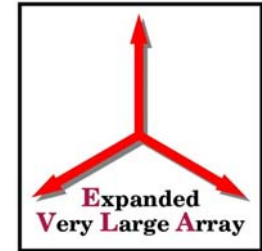


L-Band OMT Loss (HFSS Simulation)  
Room-Temperature Copper



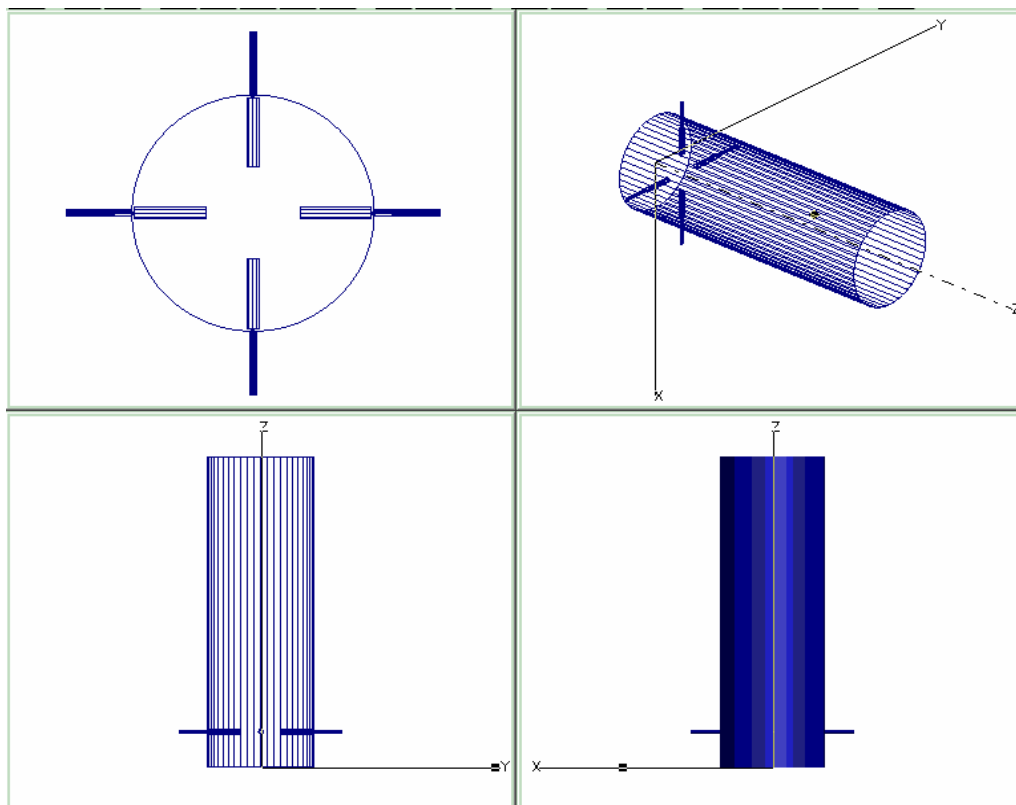
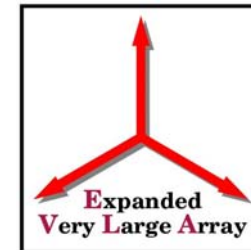


# Quad-Ridge OMT Simulation





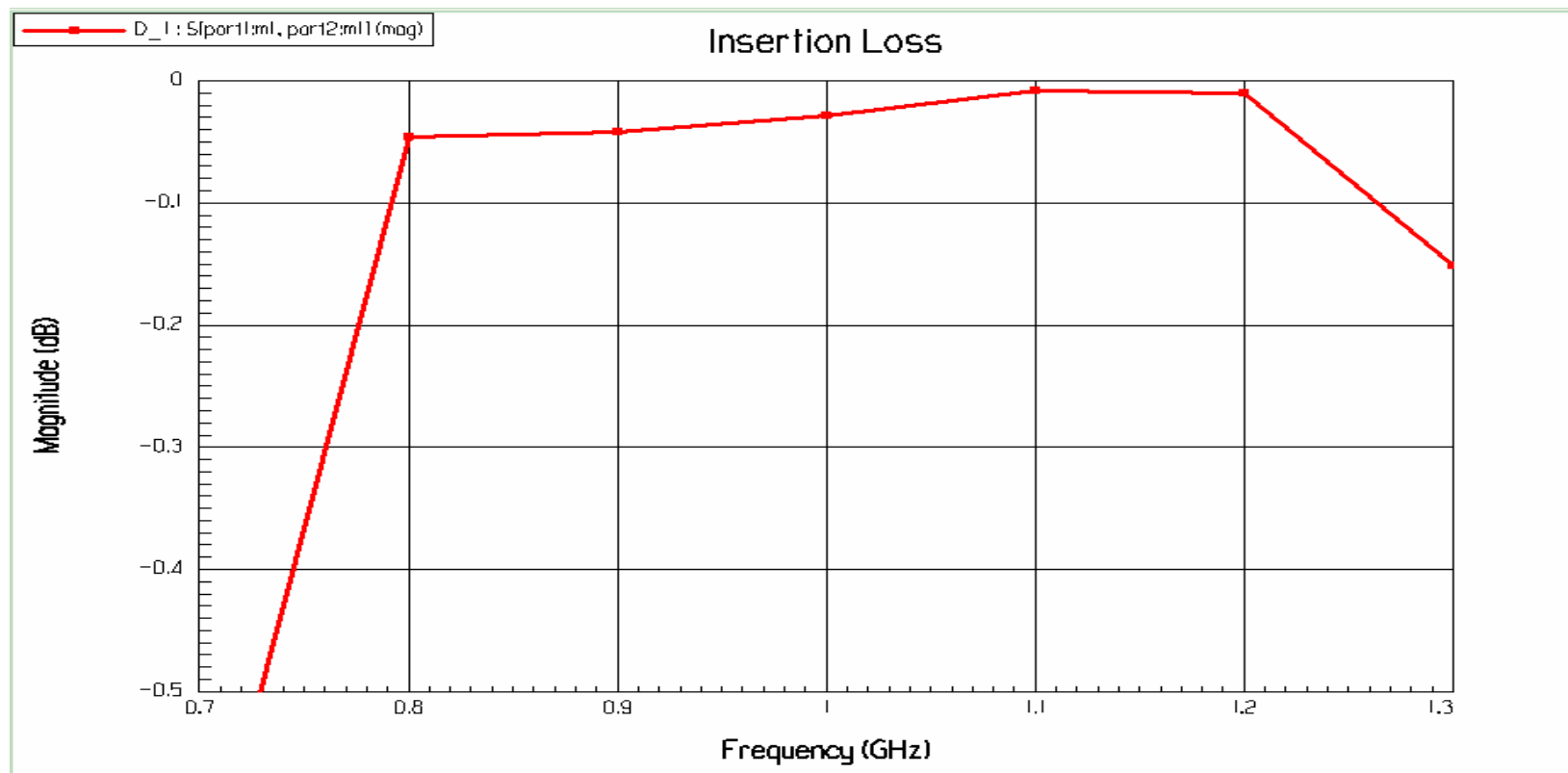
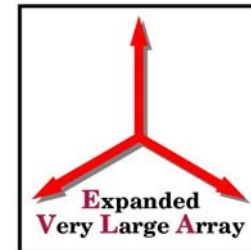
# 4-Probe OMT HFSS Model





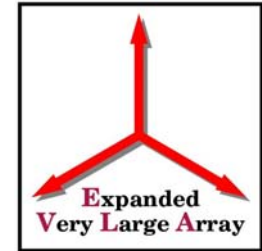


# 4-Probe OMT Simulation



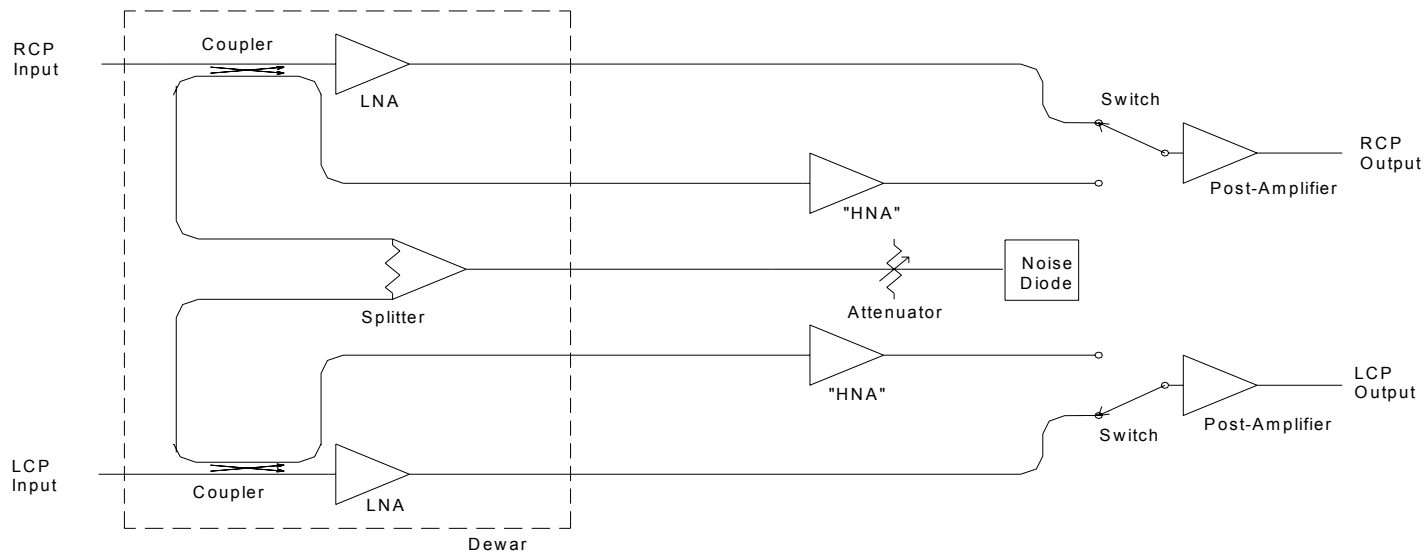
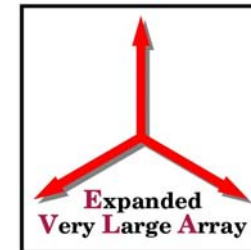


# 4-Probe OMT Simulation



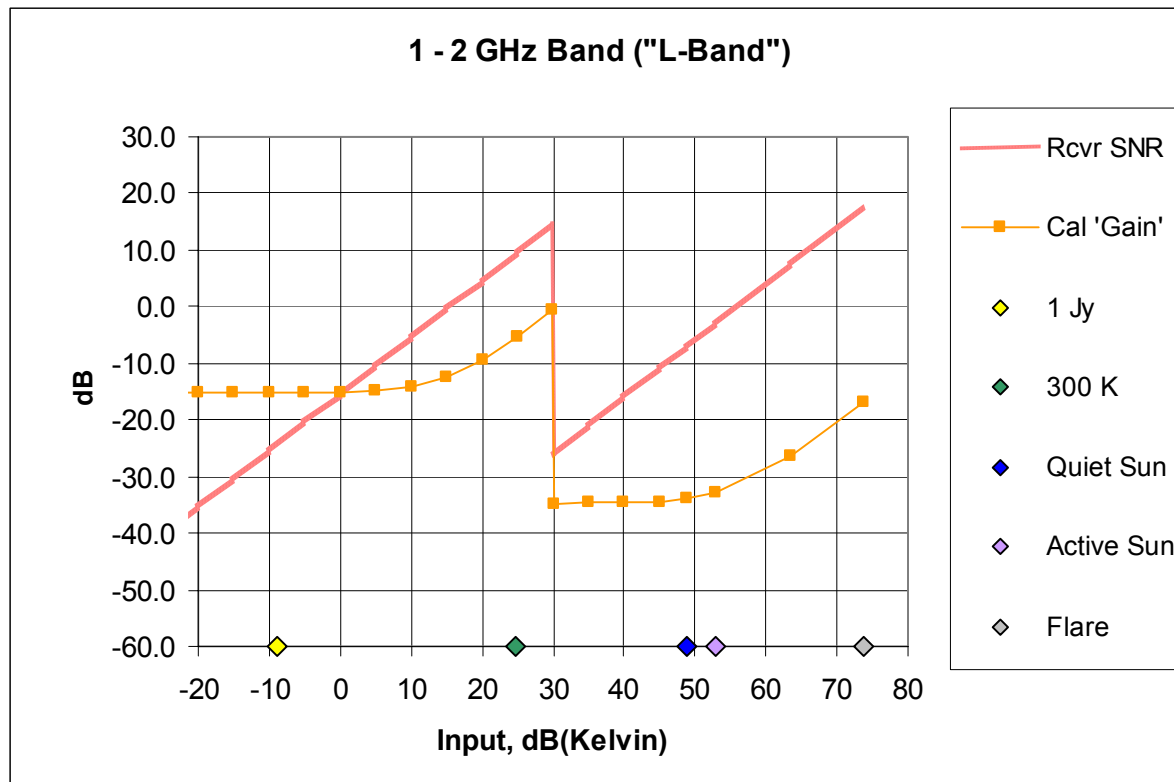
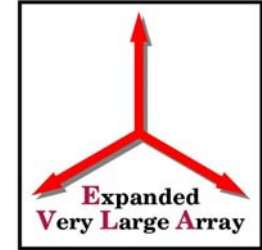


# Solar Observing “Coupler-Fed”



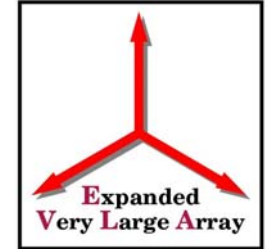


# Solar Observing Signal/Noise Ratio

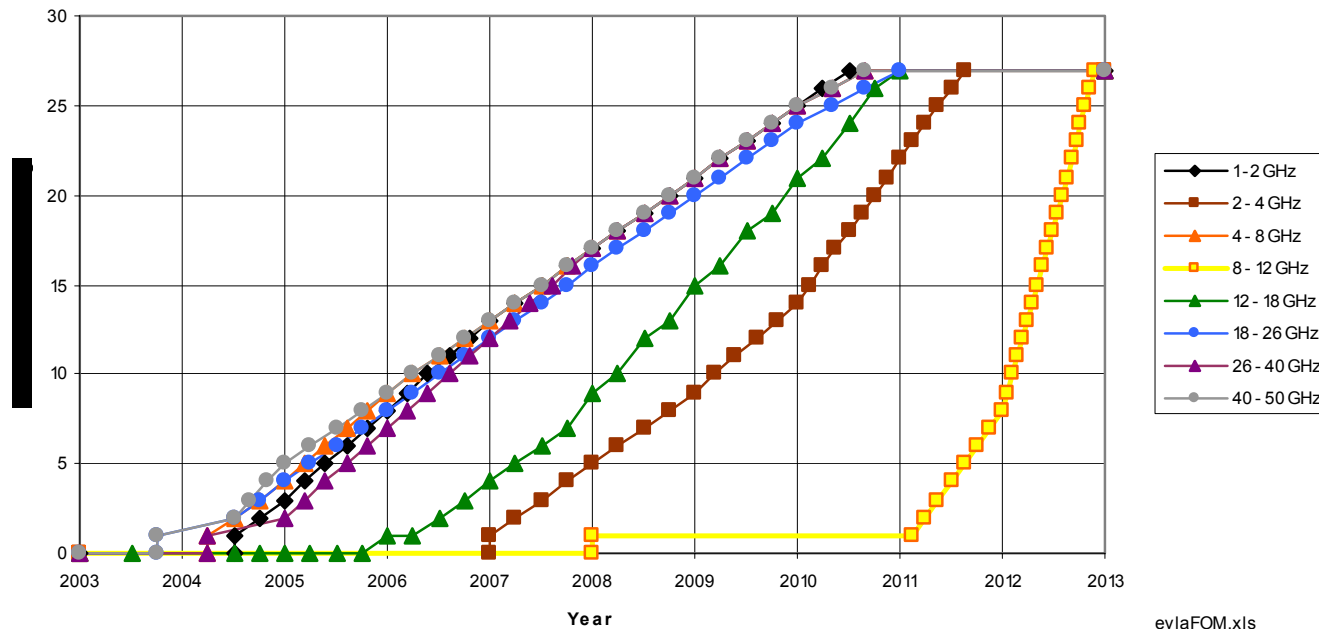




# Receiver Schedule

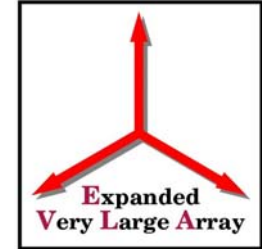


New Receiver Build Plan

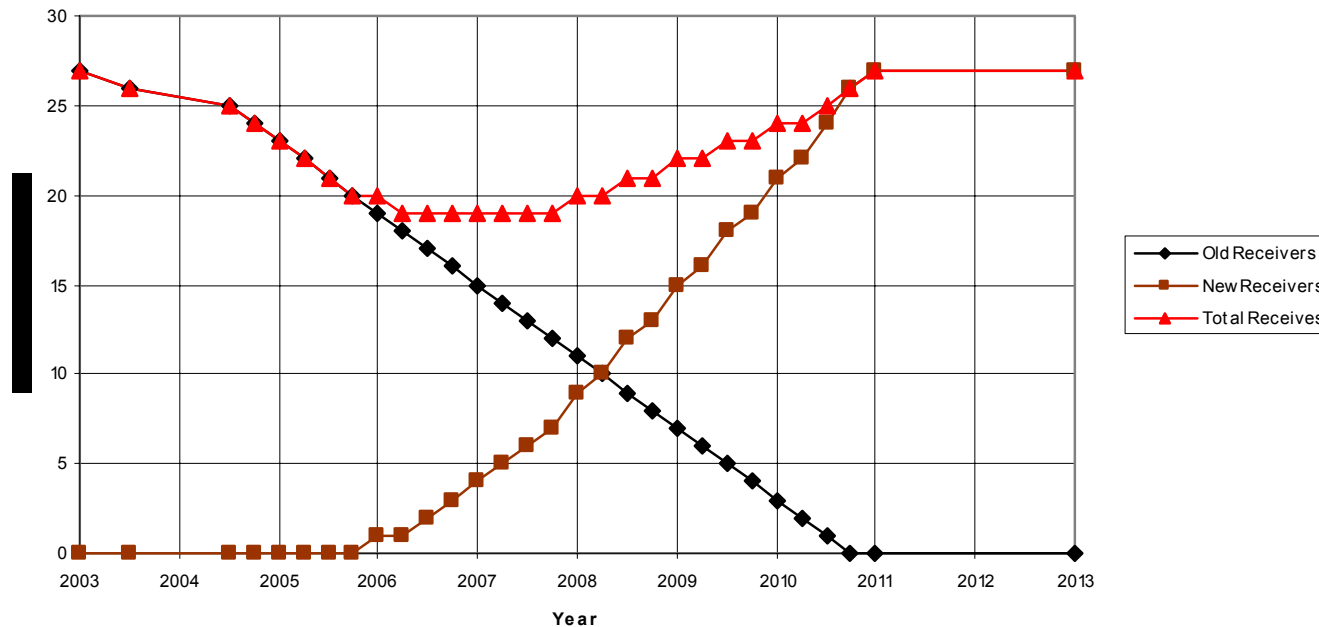




# Receiver Schedule Ku-Band

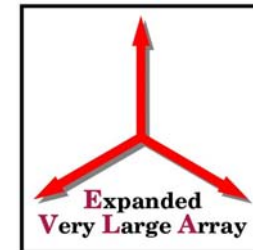


12 - 18 GHz Receiver Plan





# Receiver Schedule



## EVLA Antenna and Receiver Availability on NSF Plan

Black = Old, Red = Transition, Green = New, Blue = Total

