

EVLA Front-End CDR

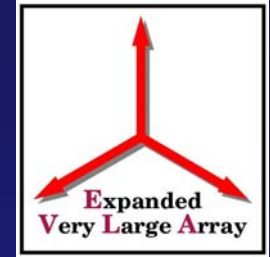
EVLA Receiver

Monitor & Control

F317 and F320 Modules



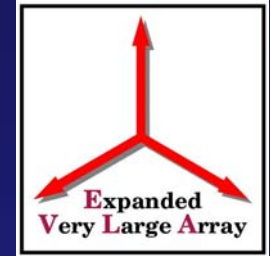
Antenna Front Ends



- Two Types of Front End Styles
 - VLA Style Card Cage System
 - ◆ EVLA Interface to F14's Required
 - ◆ This EVLA Interface is Called the F320
 - EVLA Style Card Cage System
 - ◆ This EVLA Interface is Called the F317



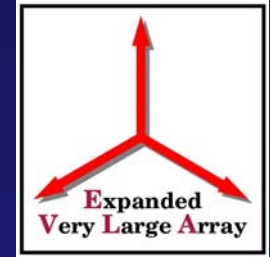
F320 & F14



- F320
 - Incorporates a MIB and Analog Card
 - Two New Regulator Card Supplies +5V, +15V, -15V, & 28V to F320, F14's, and Front Ends
 - New Interface Card Manages F14 Logic Functions using MIB Features SPI and GPIO



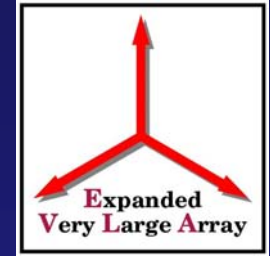
F320 & F14



- Front End to F14 (Manages Three)
 - Two DB25 Cables
 - ◆ Carries Power, 11 Analog Signals, Solar or Normal Cals, 21 Digital Bits, and 3 bits of Cryogenics Control
 - All Logic Switching, Sampling, etc. is Internal to the F14.



F317

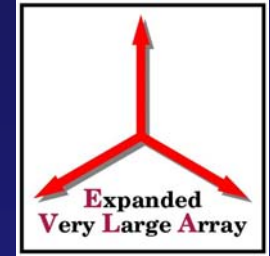


- Design – We Want More, But We Want Less
 - Card Cage Allows for 96 Analog Monitor Points
 - Card Cage Allows for 128 Bits Digital Monitor Points
 - Card Cage Allows for 128 Bits Digital Control Points
 - During Astronomy We Want Only These Defaults
 - ◆ 3 Analogs, 4 Bits Digital Monitors, No Commands
 - ◆ Analogs – 15°K, RCP & LCP Gate Voltage

Summation



F317



- Front End to F317 (Manages Five)
 - One DB50 Cable
 - ◆ 3 Analog Channels, Solar or Normal Cals, 4 Bit Digital Monitor Bus, 4 Bits Digital Command Bus, 5 Bit Address Bus, and a SPI Port
 - ◆ All Signals are Differential
 - All Logic Switching, Analog Switching, etc. is Internal to the Card Cage.
 - Each Front End Receiver is Individualized