(50A + A**2) X BANDWIDTH X # SPECTRAL POINT
= (50X64 + 64X64) X 16 GHz X 128 = 15,000,000 = $8 MEG

ARRAY 1

40 ANTENNAS
30 MHz TO 300 MHz
0.1 % SPECTRAL ACCURACY (1024 POINT SPECTRUM)
2 IF PAIRS
1 TO 10 MSEC TIME RESOLUTION
SPECTRUM OF 100 MHz PER IF PAIR AT A TIME 0.1 ALMAs

ARRAY 2

60 ANTENNAS
0.3 GHz TO 3 GHz
0.1 % SPECTRAL ACCURACY (1024 POINT SPECTRUM)
2 IF PAIRS
1 TO 10 MSEC TIME RESOLUTION
SPECTRUM OF 500 MHz PER IF PAIR AT A TIME 0.90 ALMAs
SPECTRUM OF 100 MHz PER IF PAIR AT A TIME 0.18 ALMAs

ARRAY 3

100 ANTENNAS
3 GHz TO 30 GHz
3 % SPECTRAL ACCURACY (32 POINT SPECTRUM)
4 IF PAIRS
10 TO 100 MSEC TIME RESOLUTION
SPECTRUM OF 2 GHz PER IF PAIR AT A TIME 0.51 ALMAs
SPECTRUM OF 500 MHz PER IF PAIR AT A TIME 0.13 ALMAs

Viewgraph 2
FULL 32-POINT DIF FFT

- XILINX VIRTEX II => 1024 PT FFT IN < 1 uSEC
- FULL 1,000,000 PT FFT IN ~2 MSEC
- OR PARTIAL FFT IN < 1 MSEC
Viewgraph 5

DIGITAL FILTER

LOW SPEED SAMPLER

TO CORRELATOR

DIGITAL FILTER

LOW SPEED SAMPLER

TO CORRELATOR

DIGITAL FILTER

LOW SPEED SAMPLER

TO CORRELATOR

DIGITAL FILTER

LOW SPEED SAMPLER

TO CORRELATOR