

Viewgraph 1

(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
SPECTRUM OF 100 MHz PER IF PAIR AT A TIME

0.90 ALMAS
0.18 ALMAS

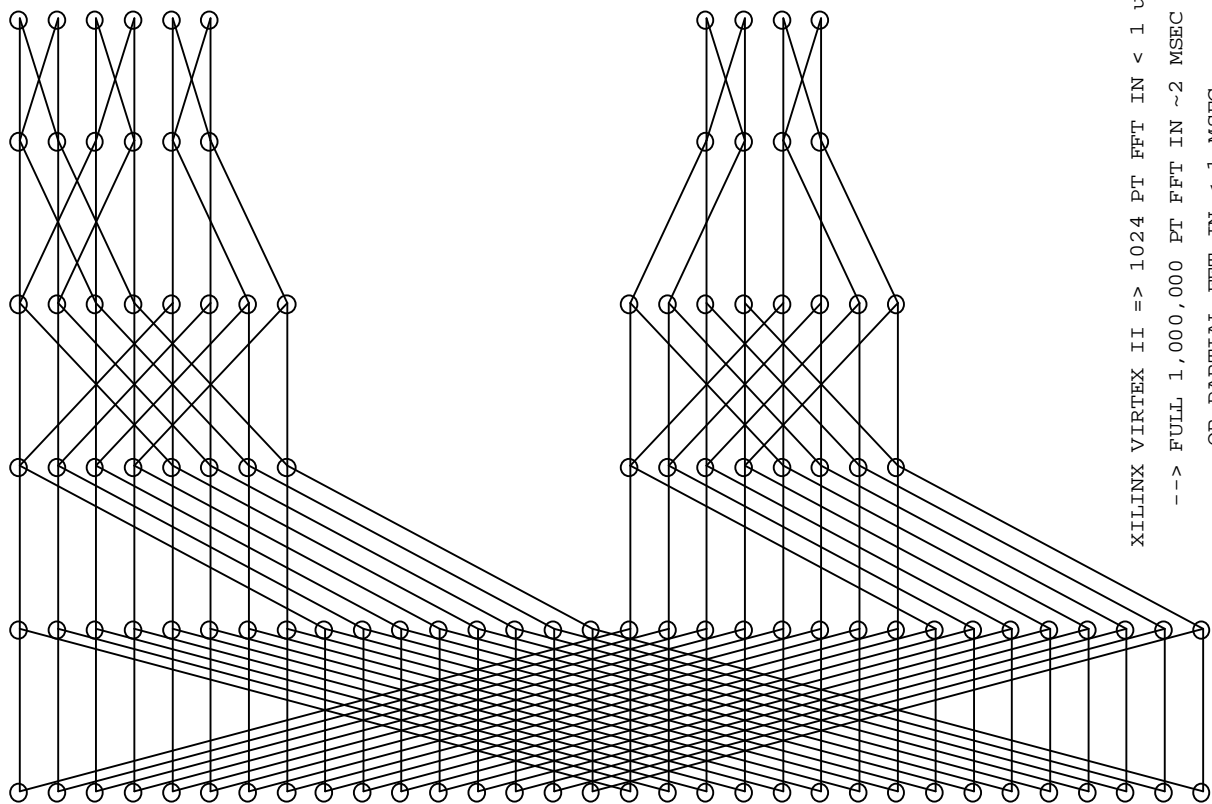
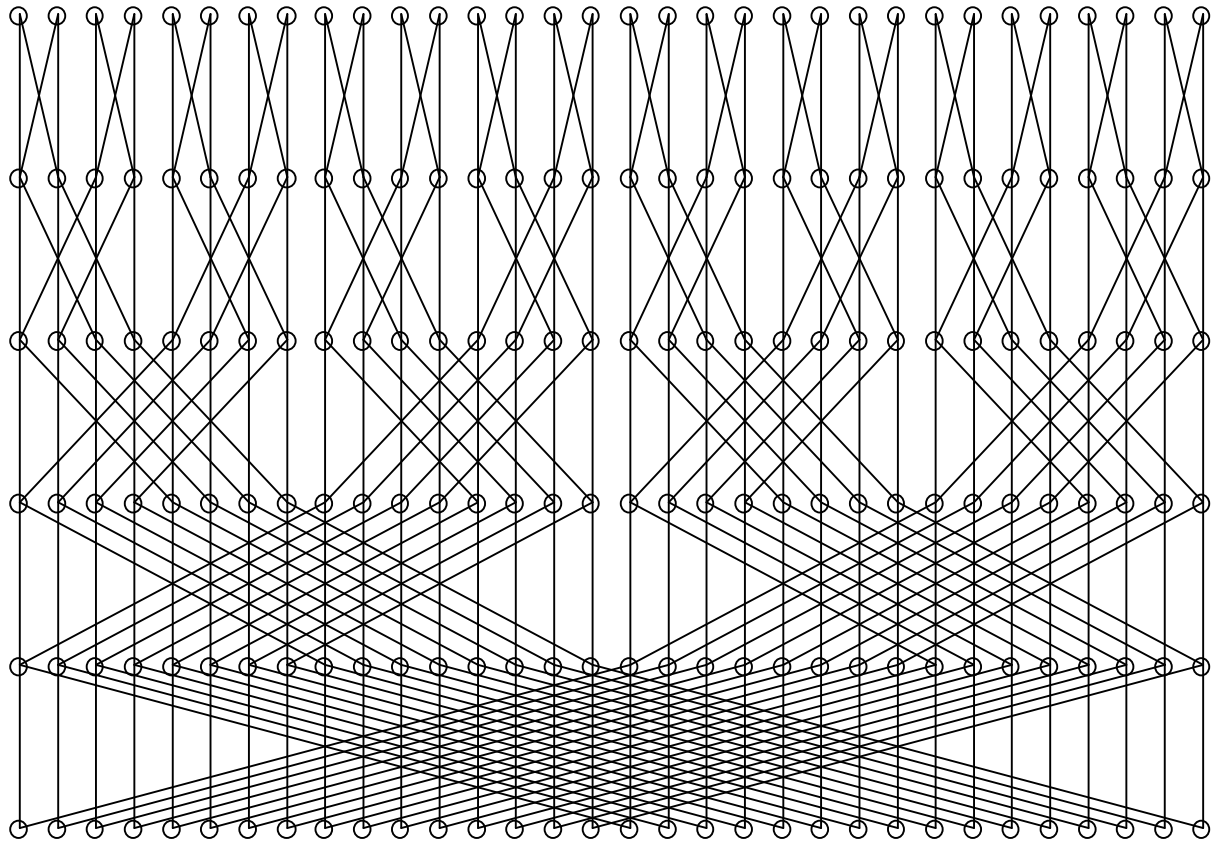
ARRAY 3

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
SPECTRUM OF 500 MHz PER IF PAIR AT A TIME

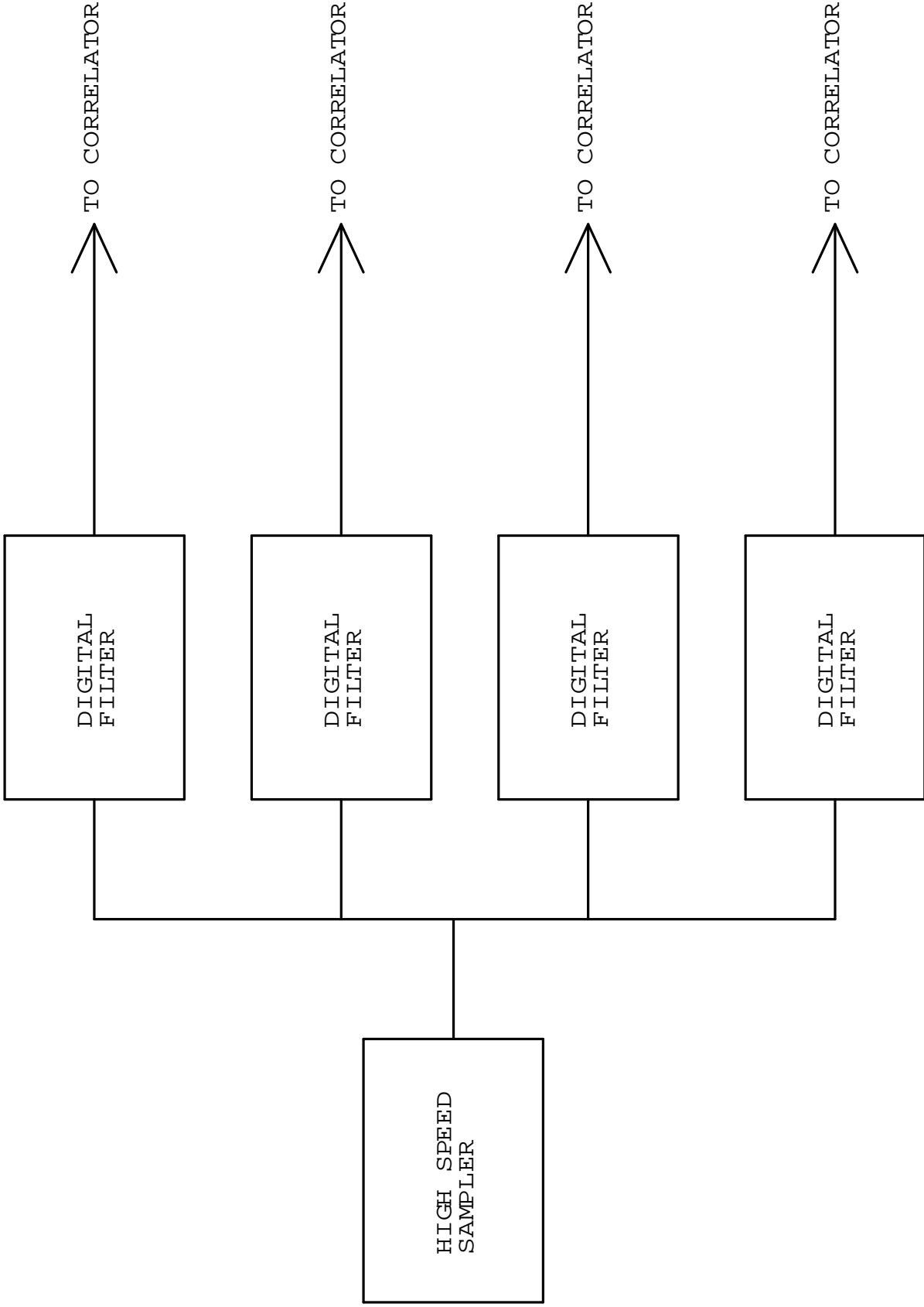
0.51 ALMAS
0.13 ALMAS

FULL 32-POINT DIF FFT

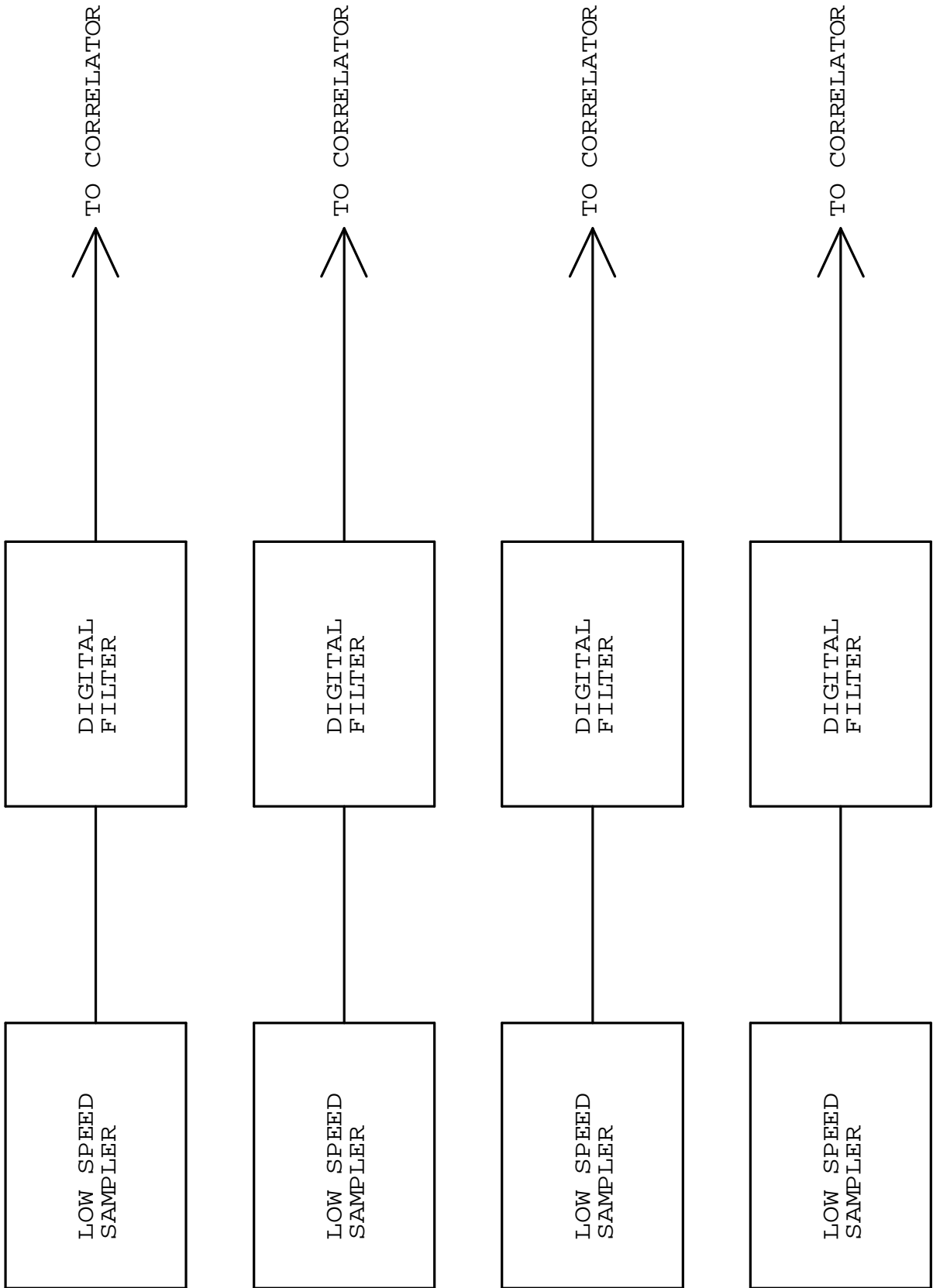


XILINX VIRTEX II => 1024 PT FFT IN < 1 uSEC
--> FULL 1,000,000 PT FFT IN ~2 MSEC
OR PARTIAL FFT IN < 1 MSEC

Viewgraph 3



Viewgraph 4



Viewgraph 5