

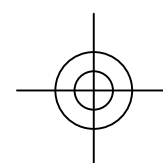
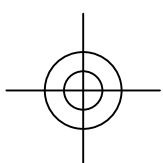
Crate Master Board

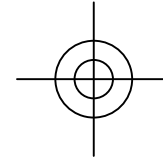
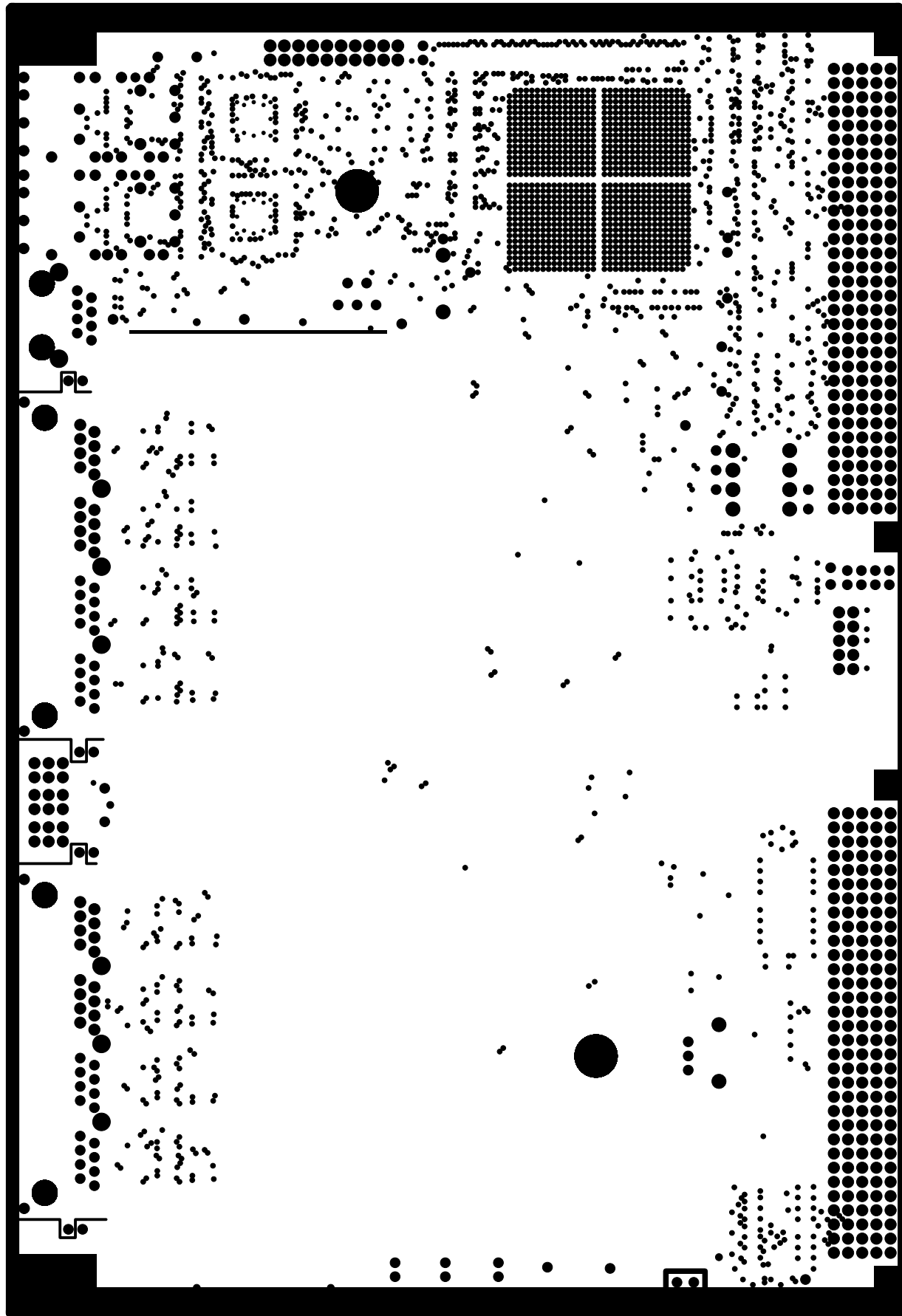
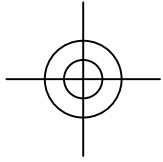
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

COMPONENT SIDE SIGNAL\_1 FILM1





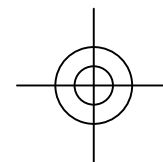
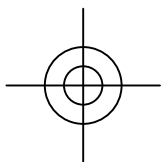
Crate Master Board

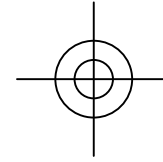
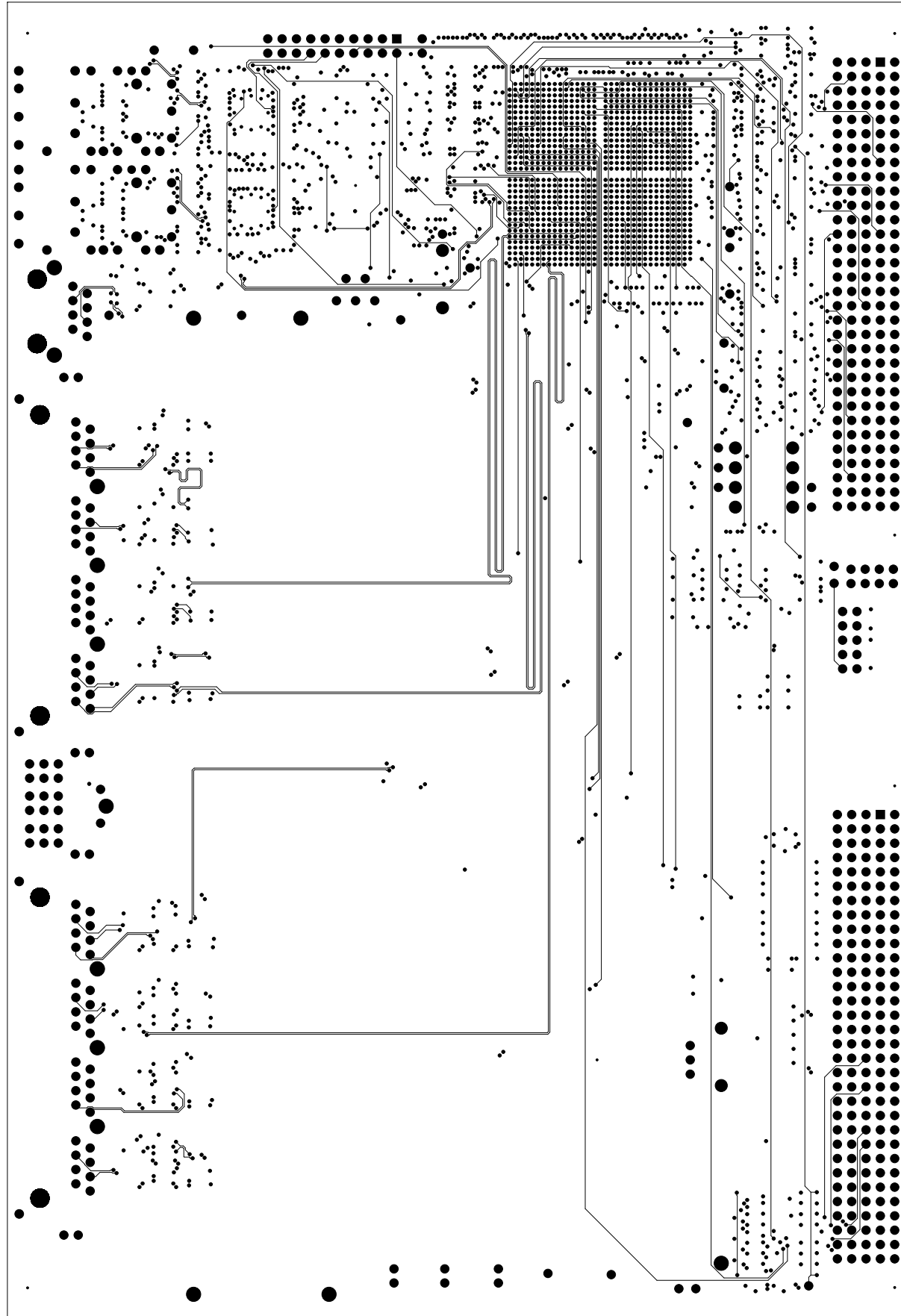
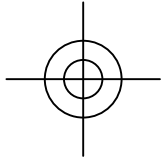
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: GROUND, FILM2





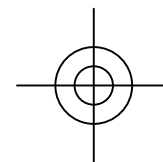
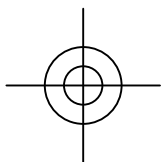
Crate Master Board

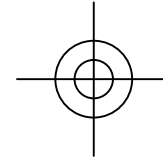
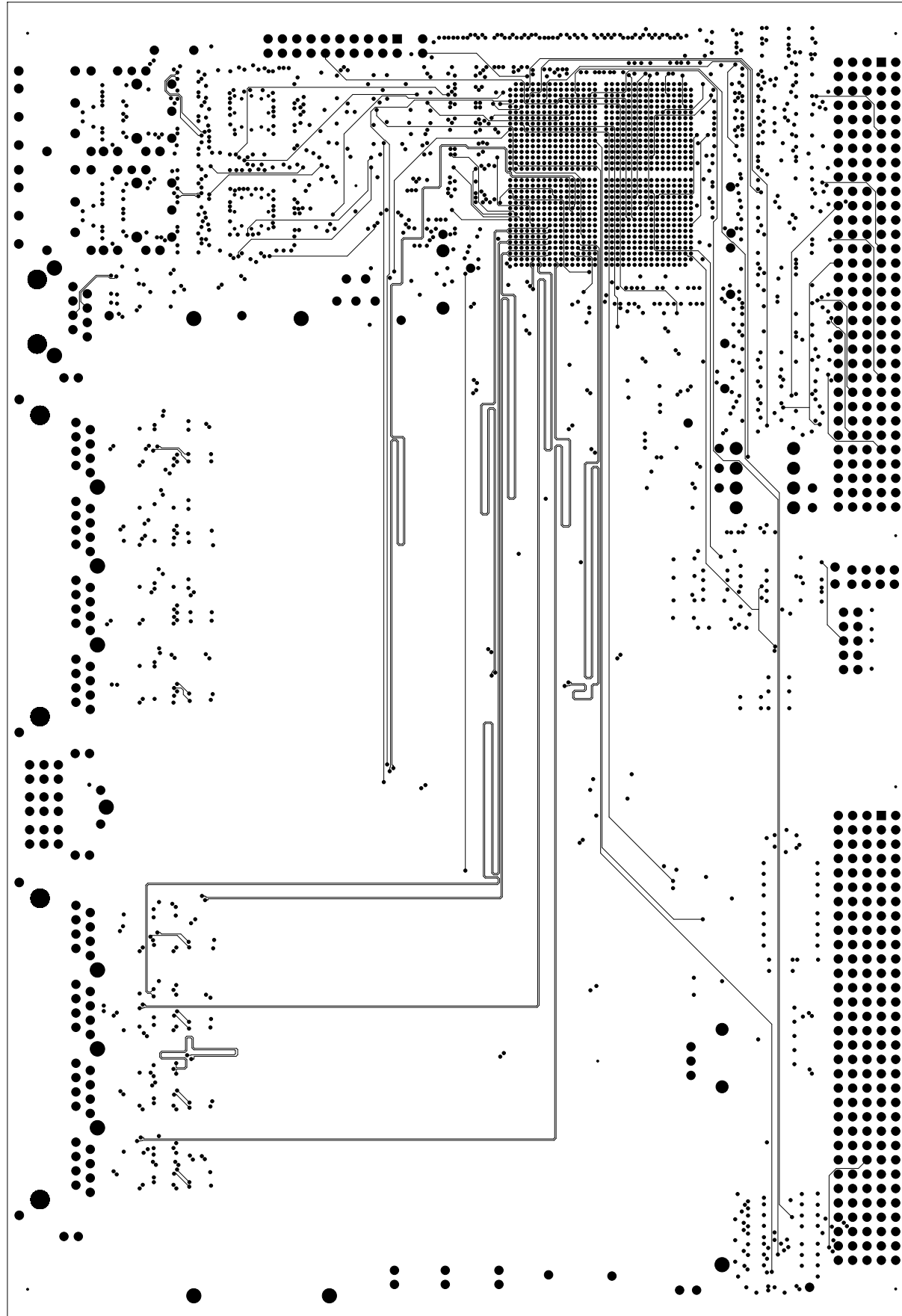
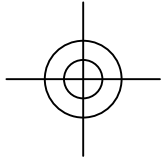
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_7 FILM3





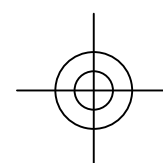
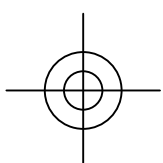
Crate Master Board

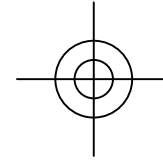
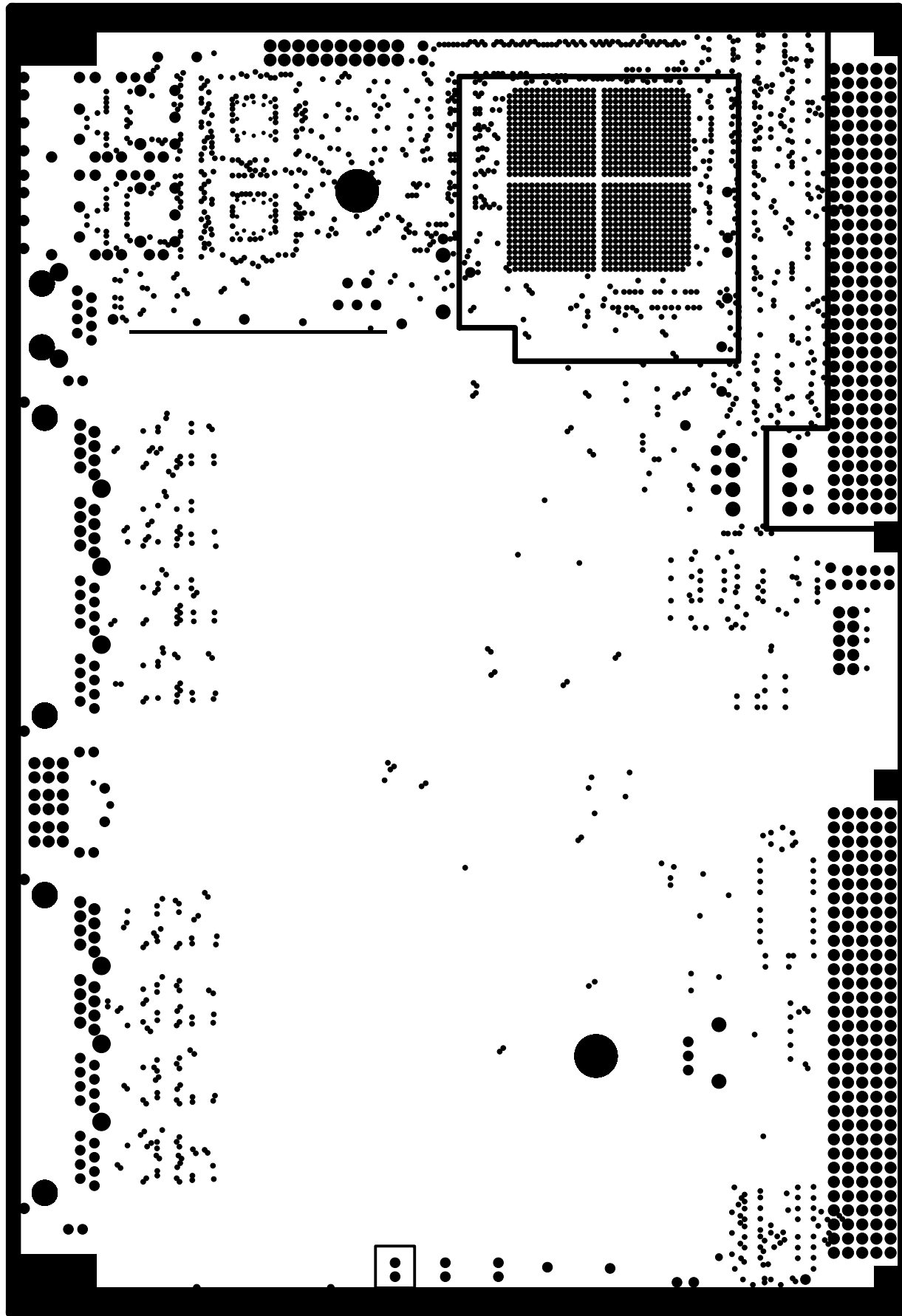
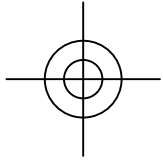
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_2 FILM4





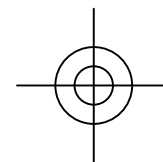
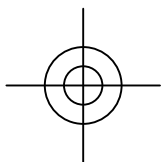
Crate Master Board

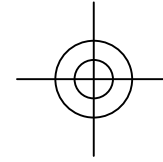
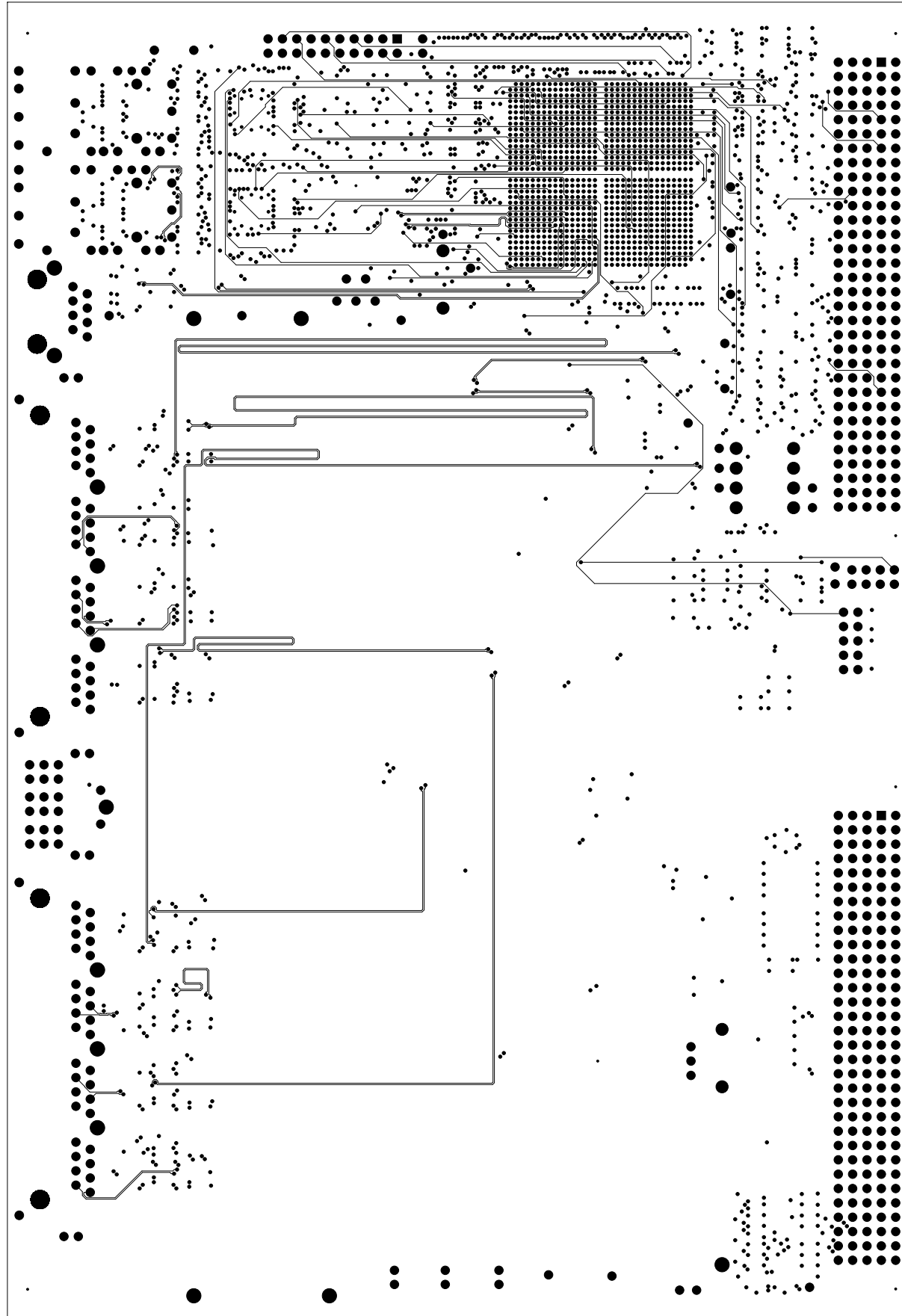
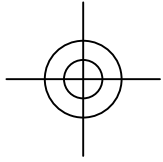
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: +3.3V\_PLL, +5V<sub>an</sub>, +12V, +12V<sub>in</sub>, FILM5





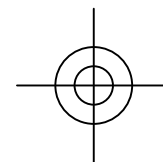
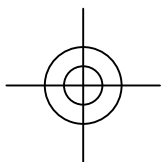
Crate Master Board

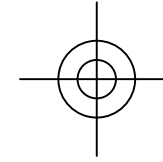
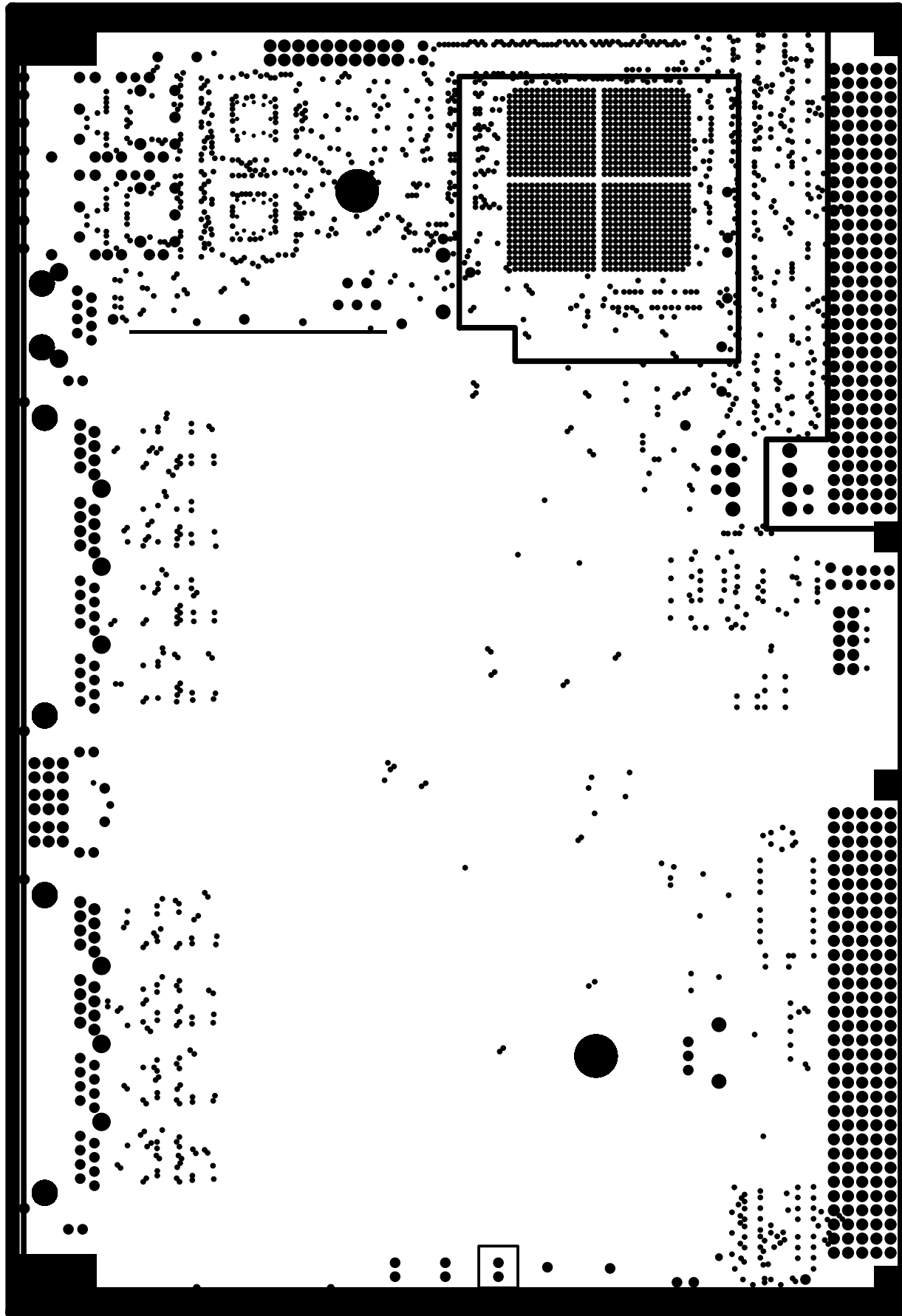
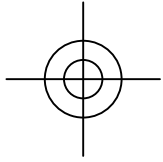
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_3 FILM6





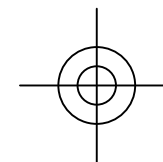
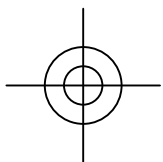
Crate Master Board

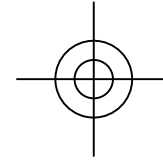
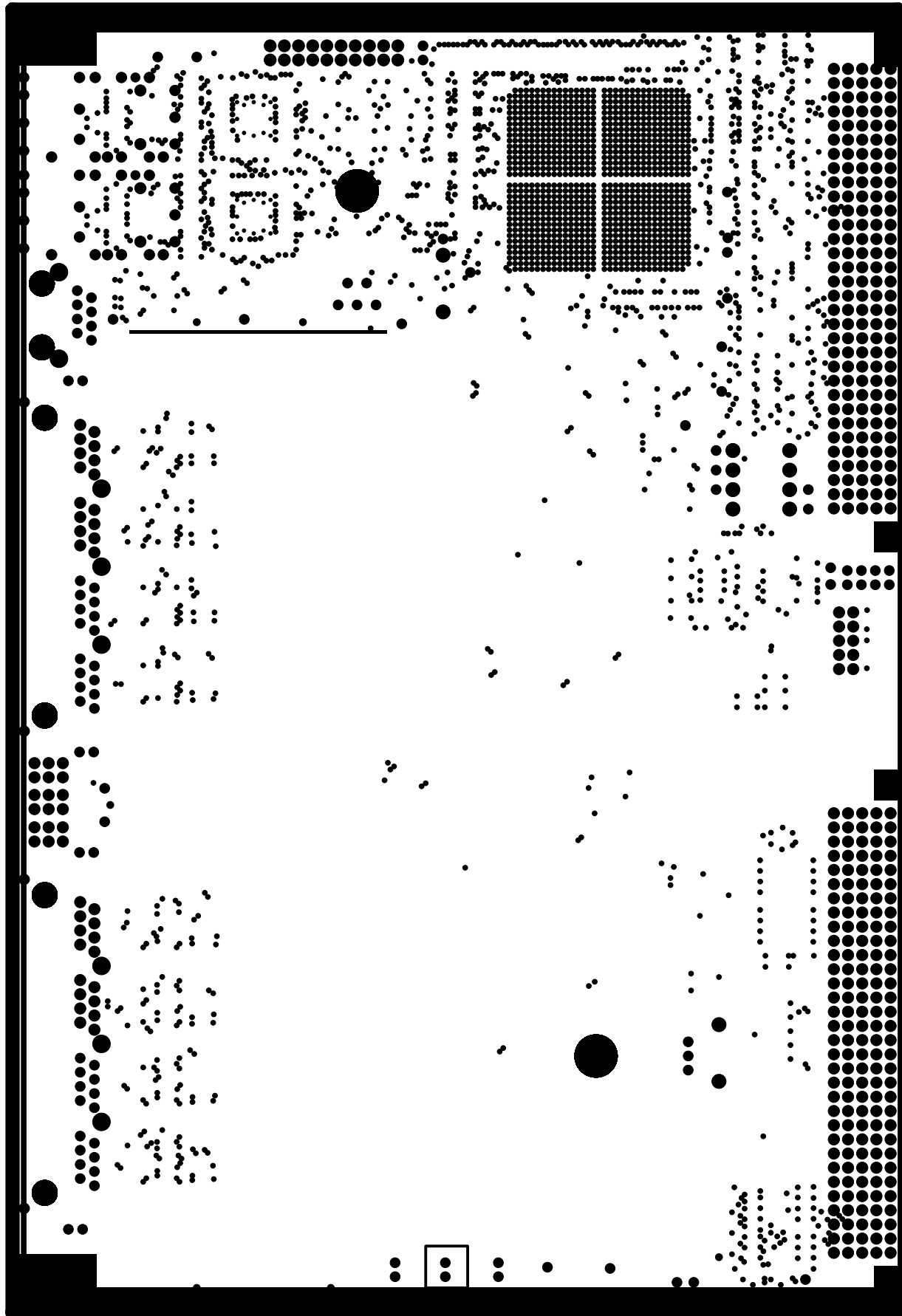
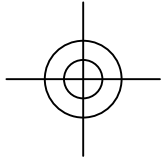
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: +1.2V\_PLL, -12V, -12Vin, -5Van, FILM7





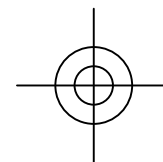
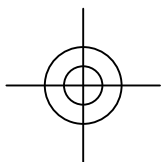
Crate Master Board

SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

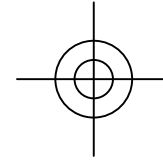
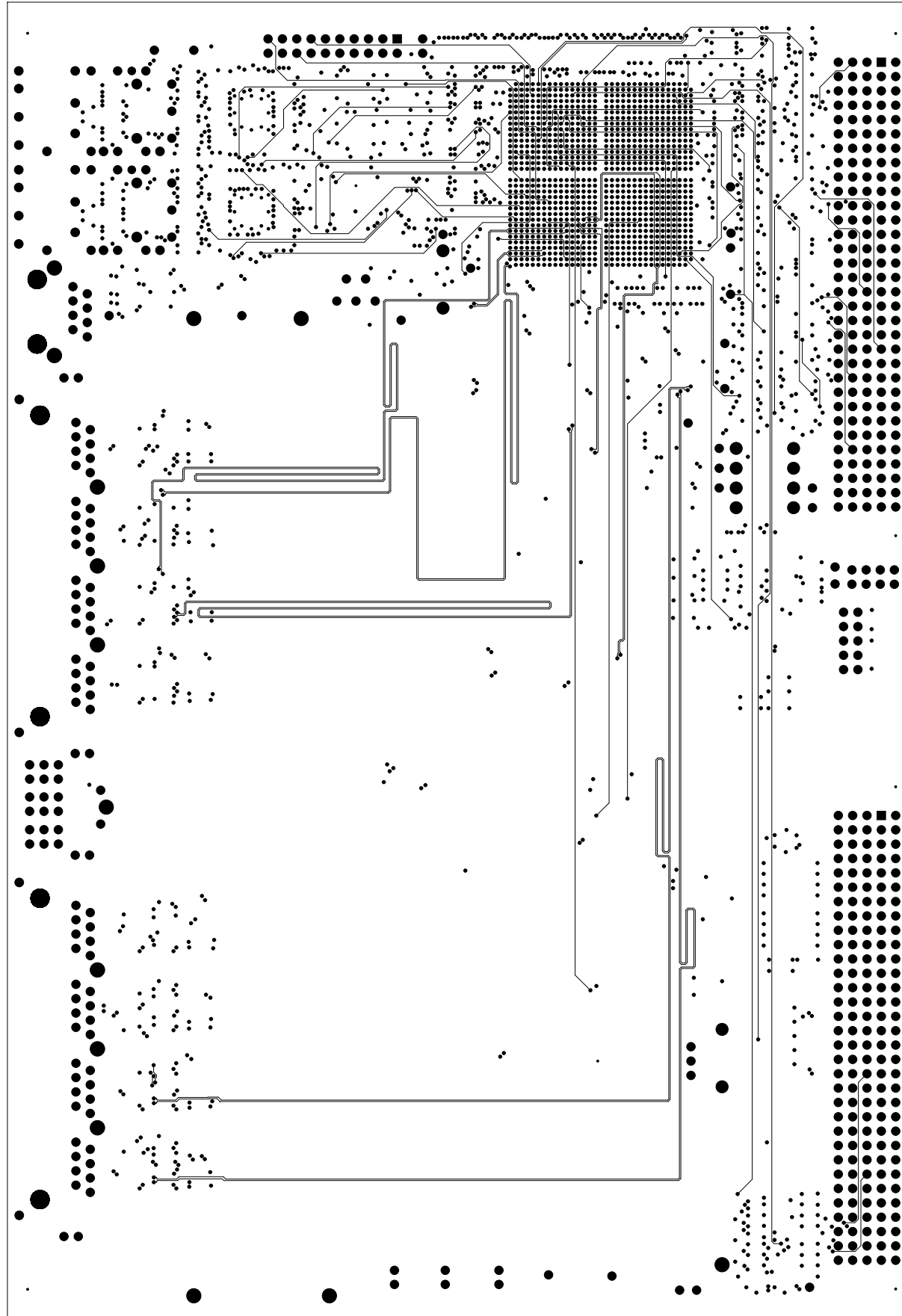
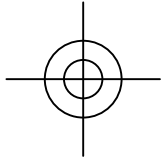
August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: +1.2V, +1.8V, FILM8







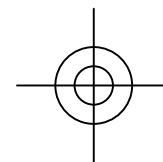
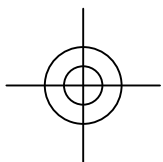
Crate Master Board

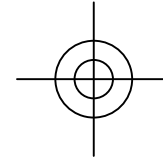
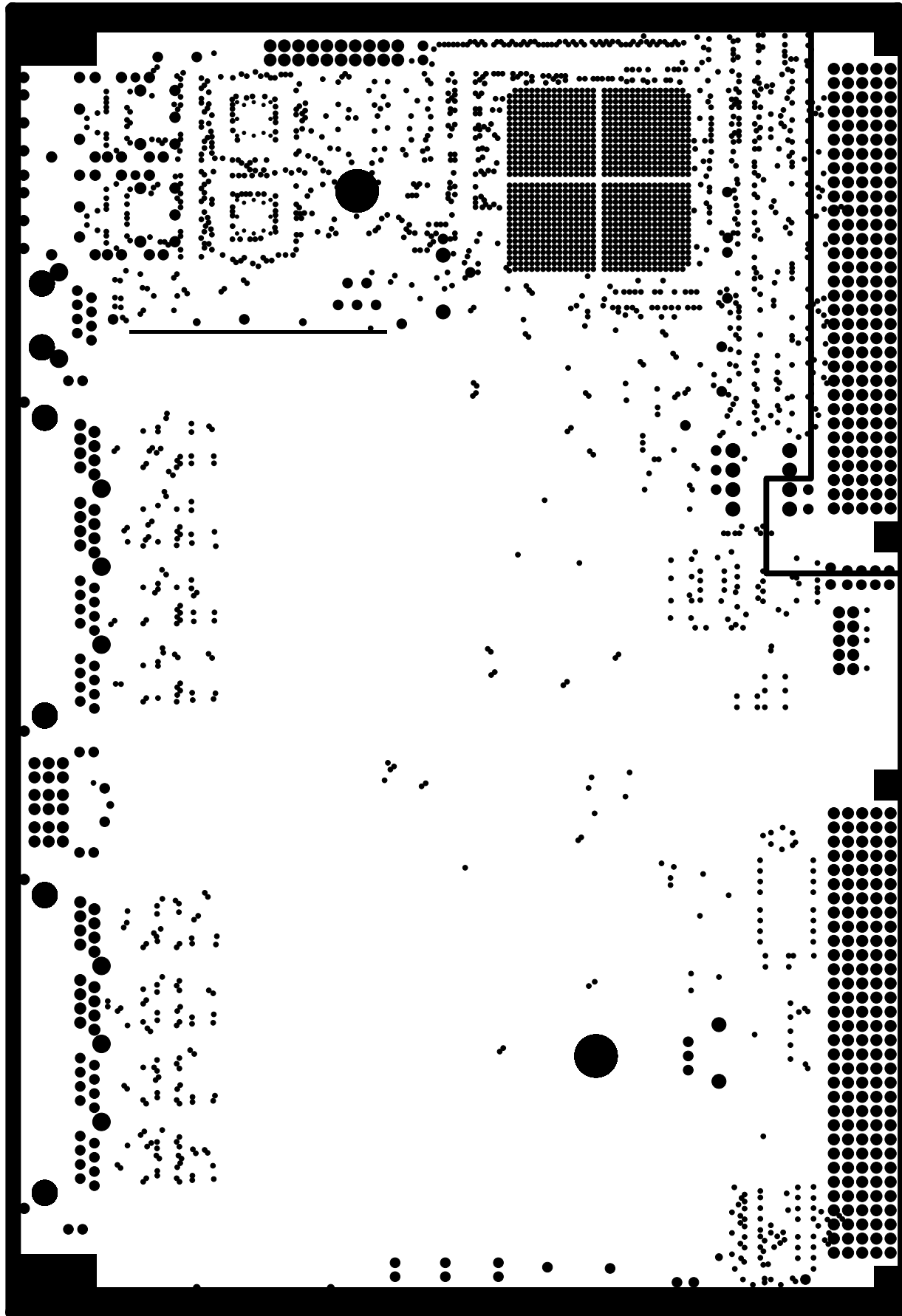
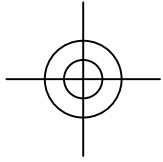
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_4 FILM9





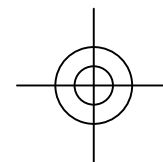
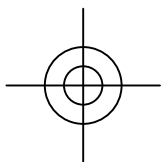
Crate Master Board

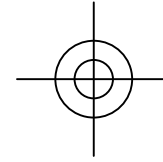
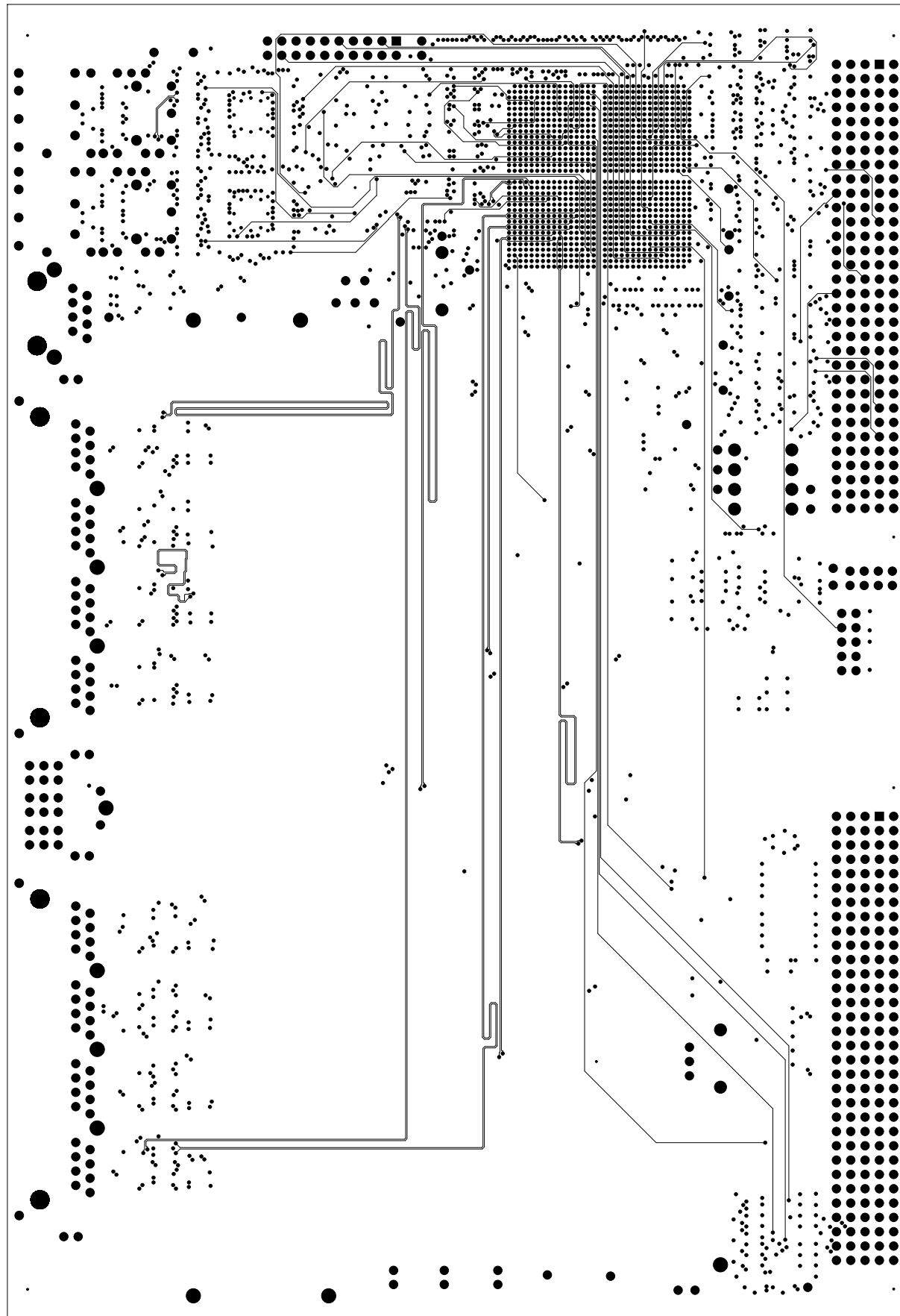
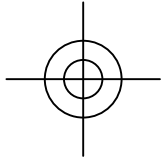
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: +3.3V, +3.3Vin FILM10





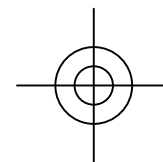
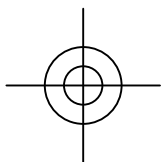
Crate Master Board

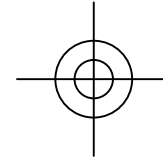
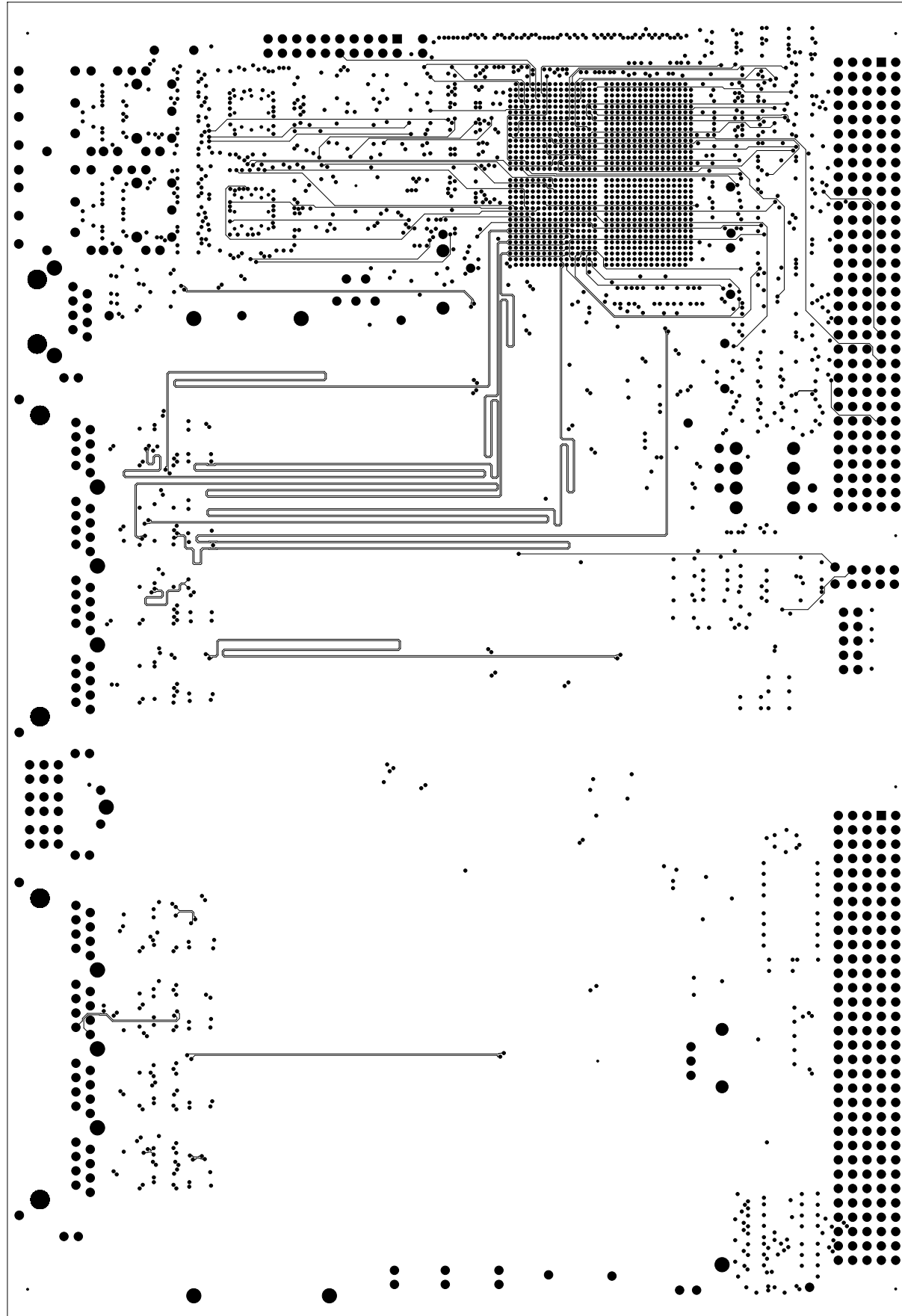
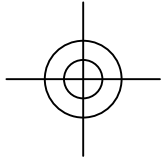
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_10 FILM11





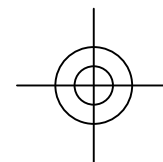
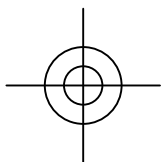
Crate Master Board

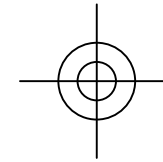
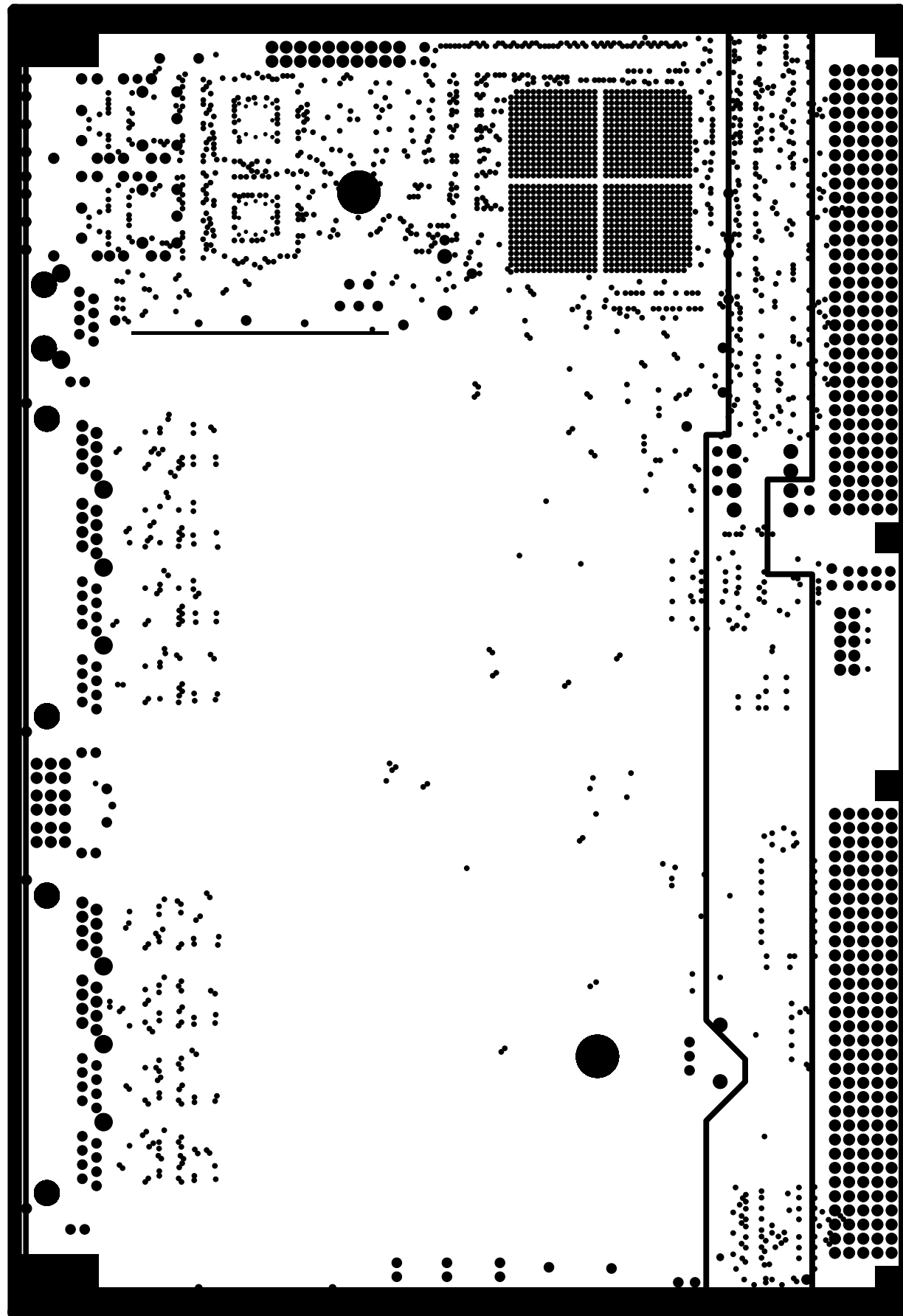
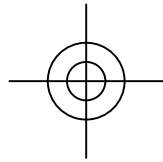
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SIGNAL\_5 FILM12





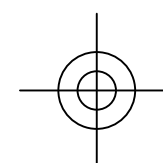
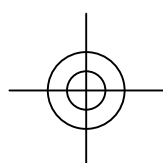
Crate Master Board

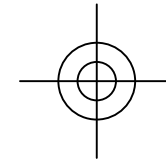
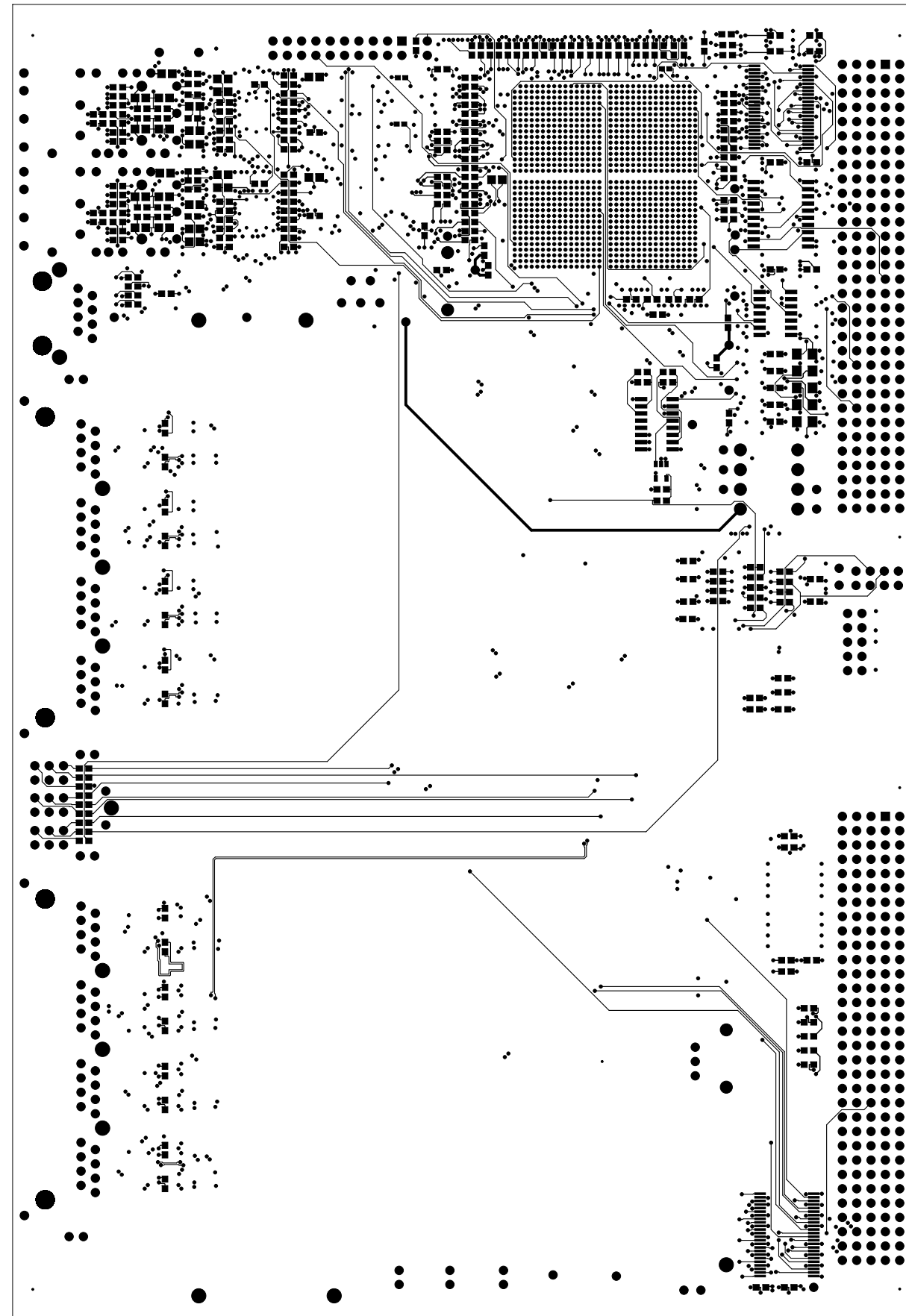
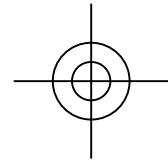
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

POWER: +5V, VCC, +2.5V, FILM13





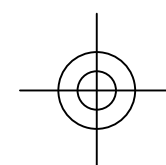
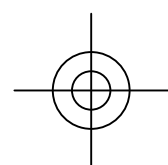
Crate Master Board

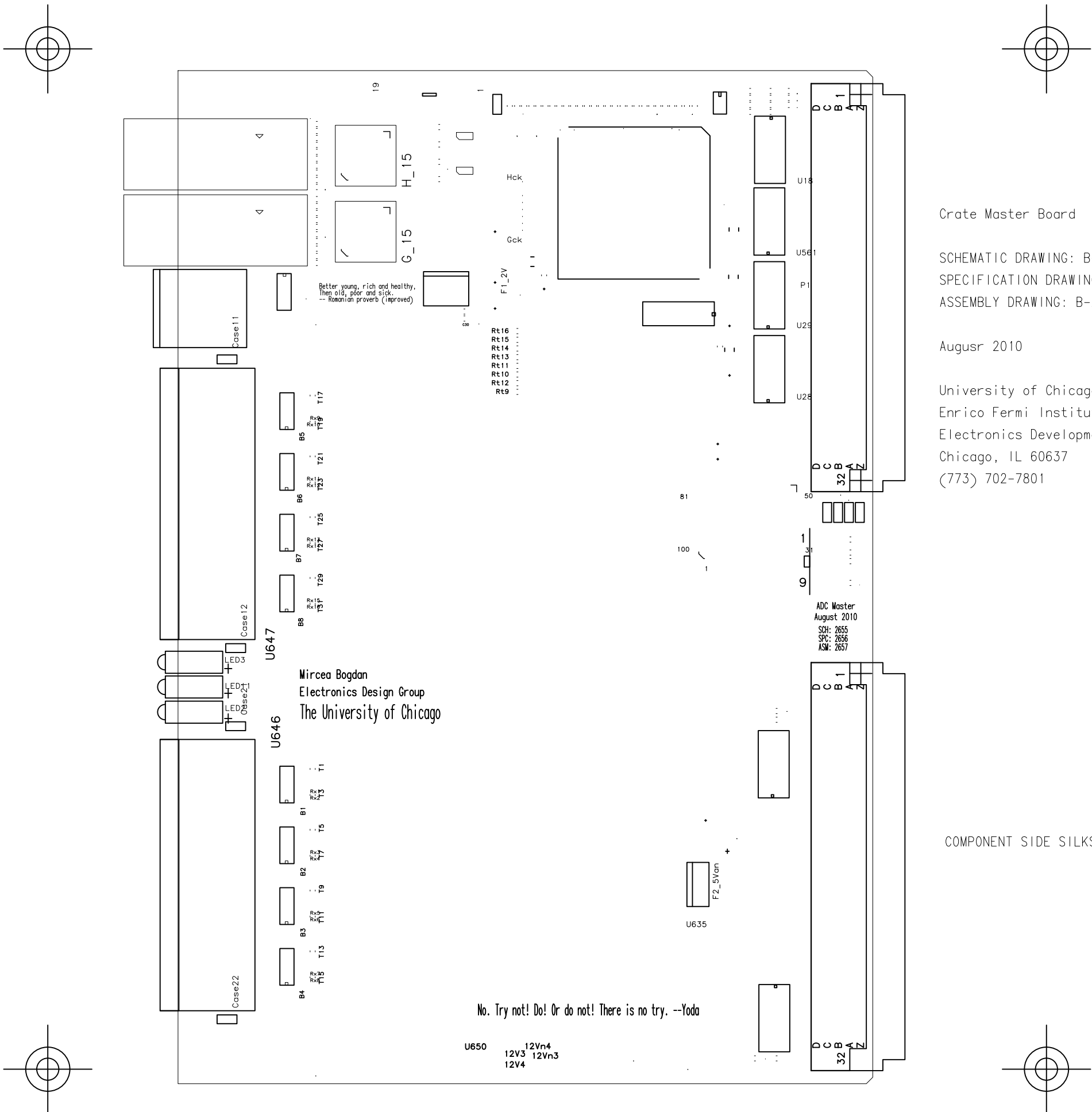
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

Bottom, SIGNAL\_6, FILM14





Crate Master Board

SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

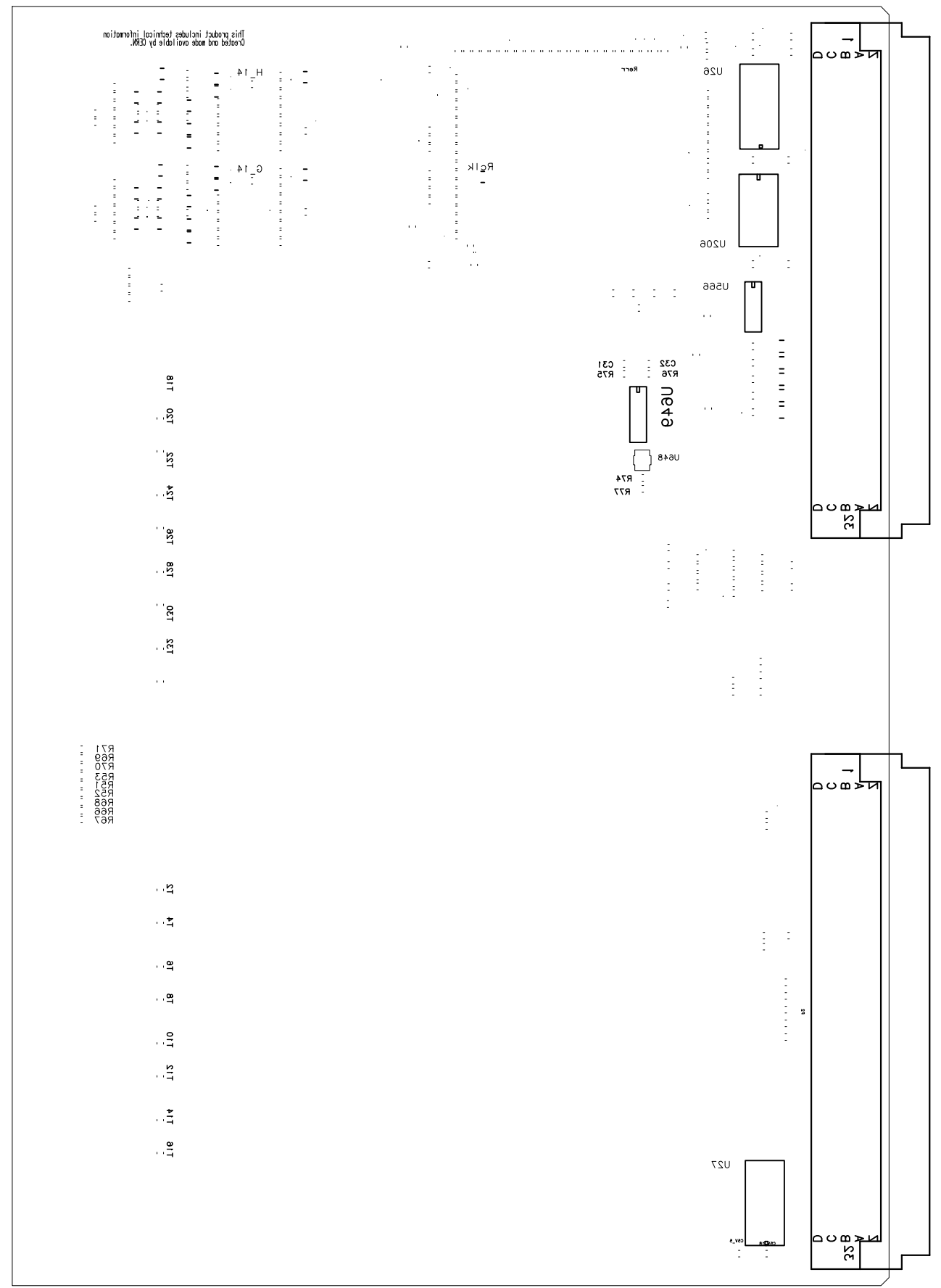
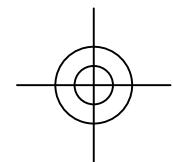
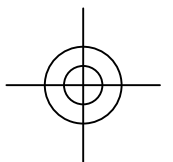
ADC Master  
August 2010  
SCH: 2655  
SPC: 2656  
ASM: 2657

Mircea Bogdan  
Electronics Design Group  
The University of Chicago

No. Try not! Do! Or do not! There is no try. --Yoda

U650 12Vn4  
12V3 12Vn3  
12V4

COMPONENT SIDE SILKSCREEN FILM15



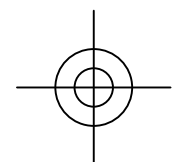
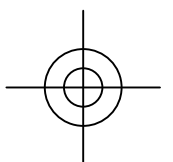
Crate Master Board

SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

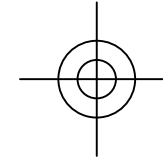
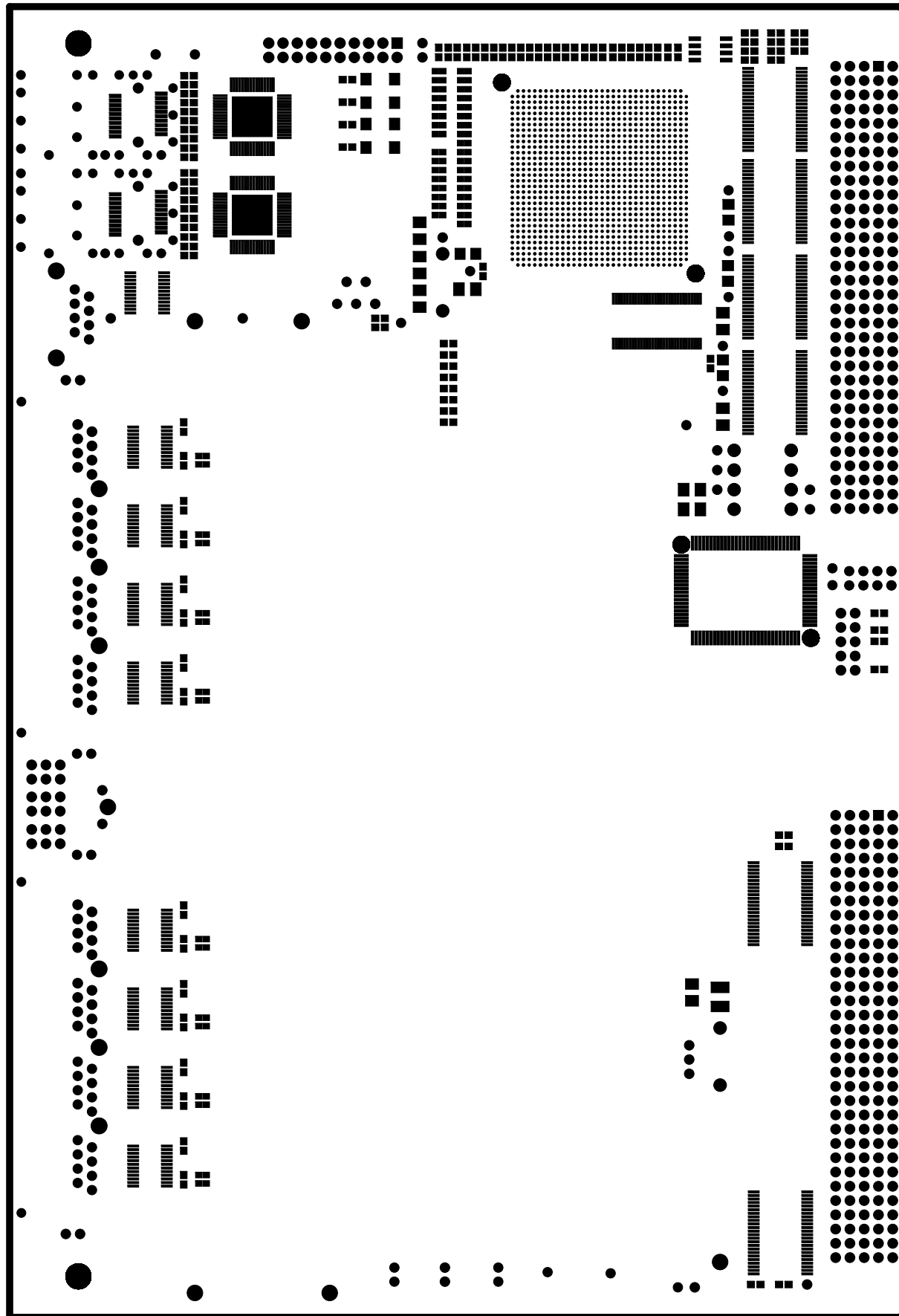
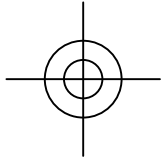
August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SOLDER SIDE SILKSCREEN FILM16







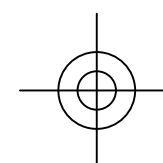
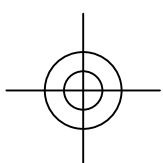
Crate Master Board

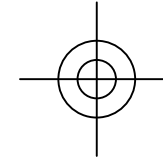
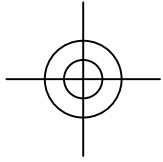
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

COMPONENT SIDE SOLDERMASK FILM17





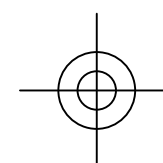
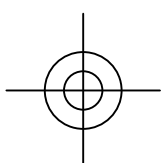
Crate Master Board

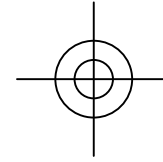
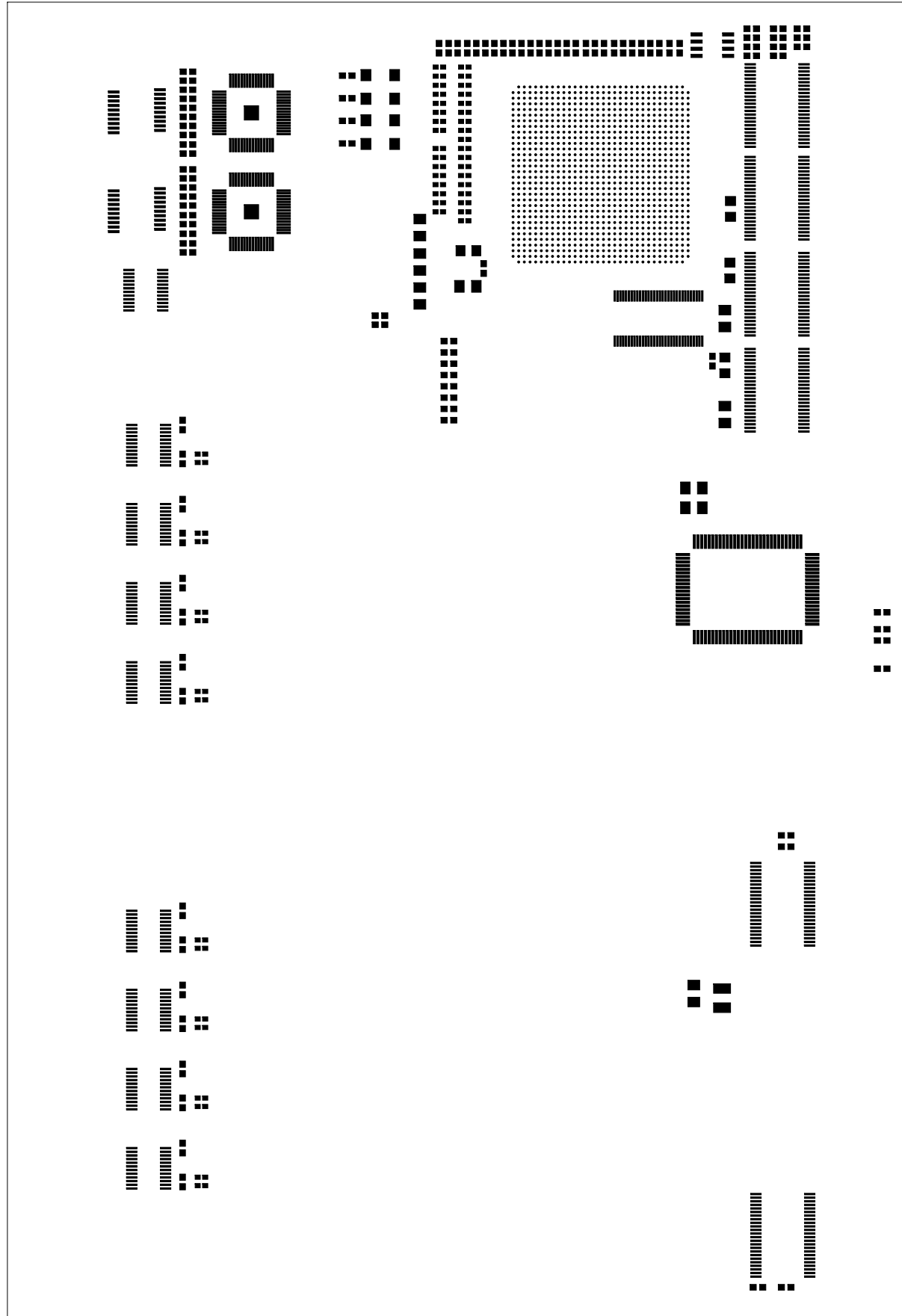
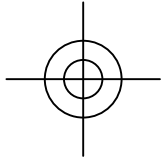
SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801

SOLDER SIDE SOLDERMASK FILM18



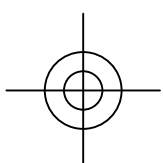


Crate Master Board

SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

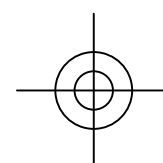
August 2010

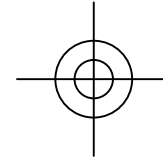
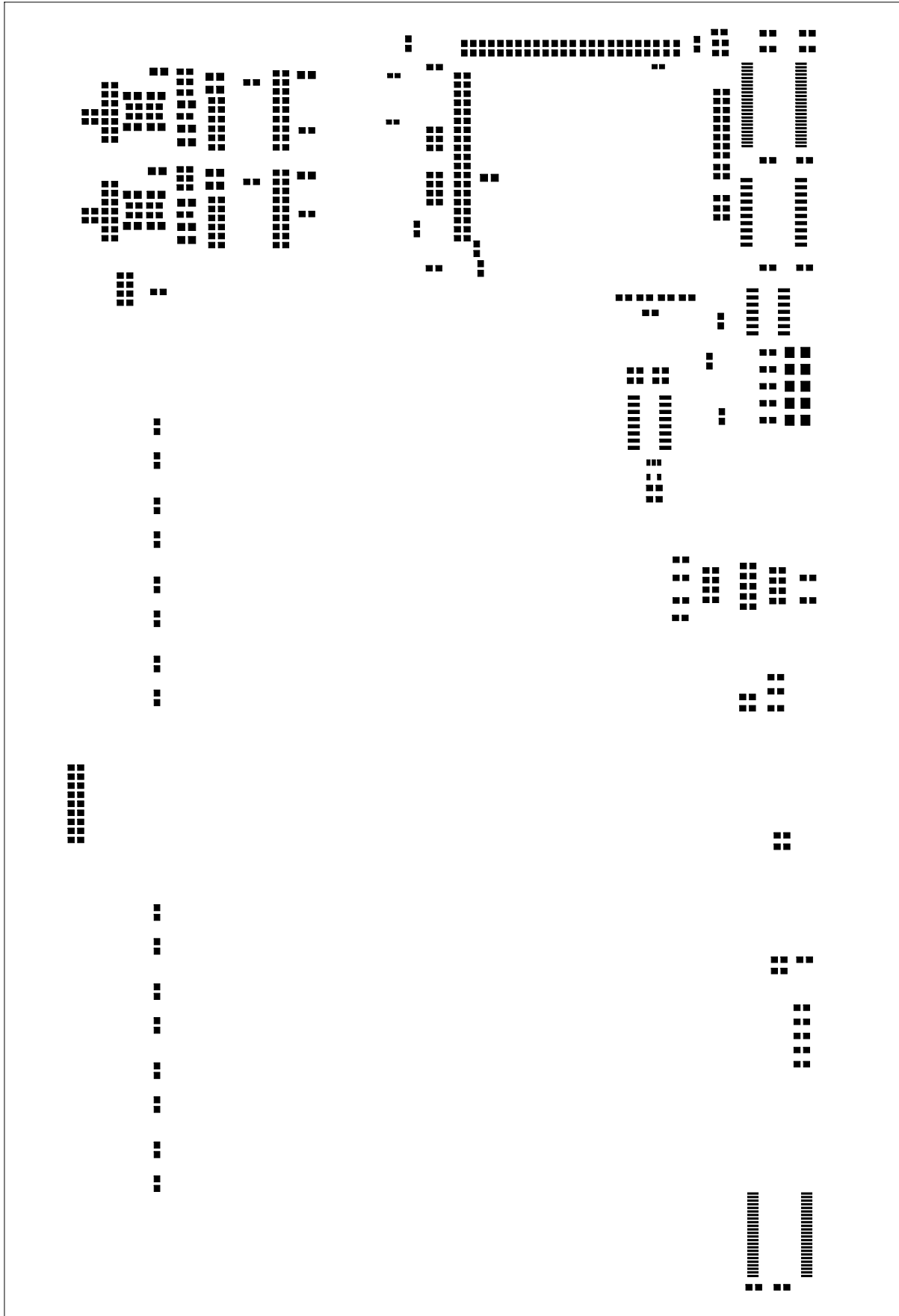
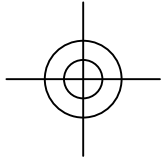
University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801



PASTE MASK 1

FILM19



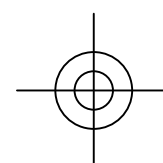
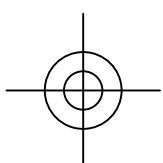


Crate Master Board

SCHEMATIC DRAWING: B-2655 Rev.B  
SPECIFICATION DRAWING: A-2656 Rev.B  
ASSEMBLY DRAWING: B-2657 Rev.B

August 2010

University of Chicago  
Enrico Fermi Institute  
Electronics Development Group  
Chicago, IL 60637  
(773) 702-7801



PASTE MASK 2

FILM20