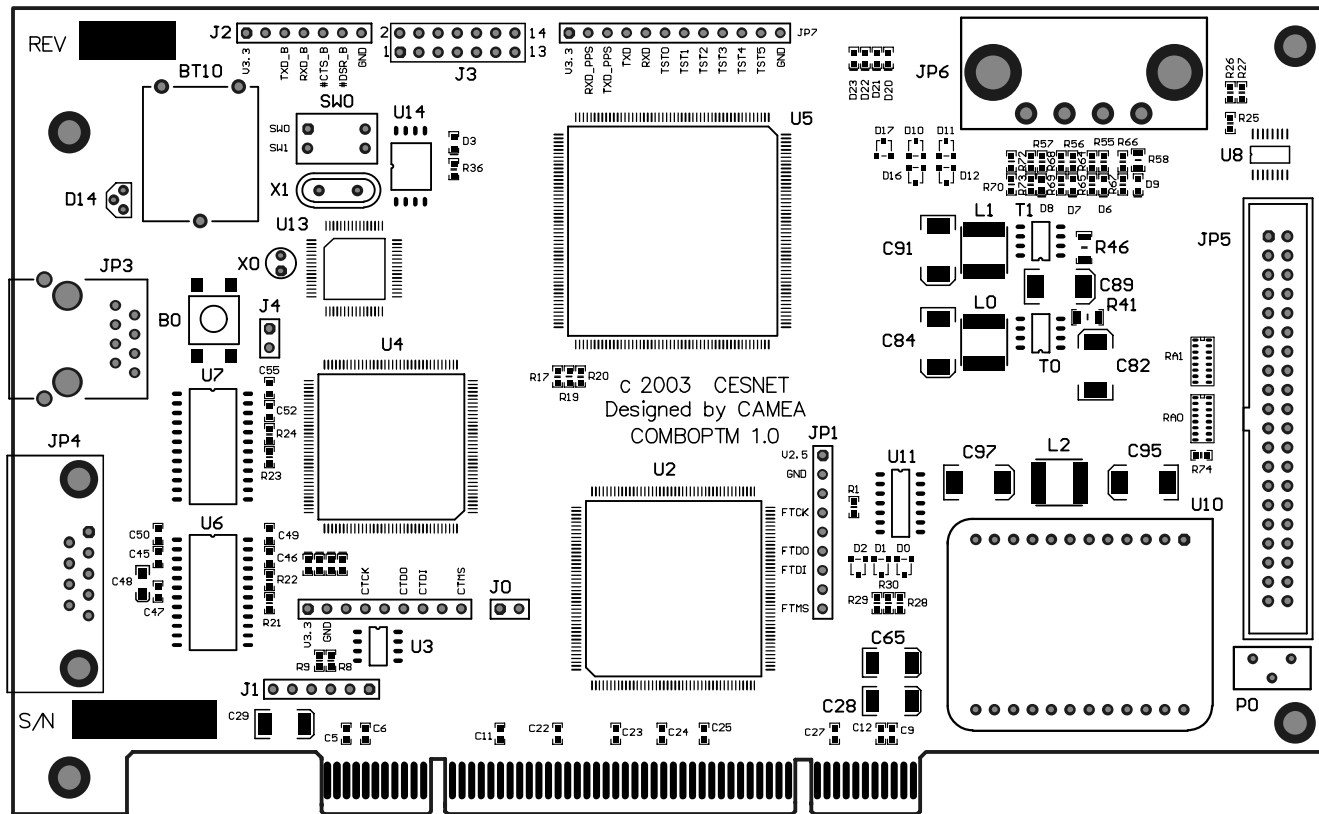


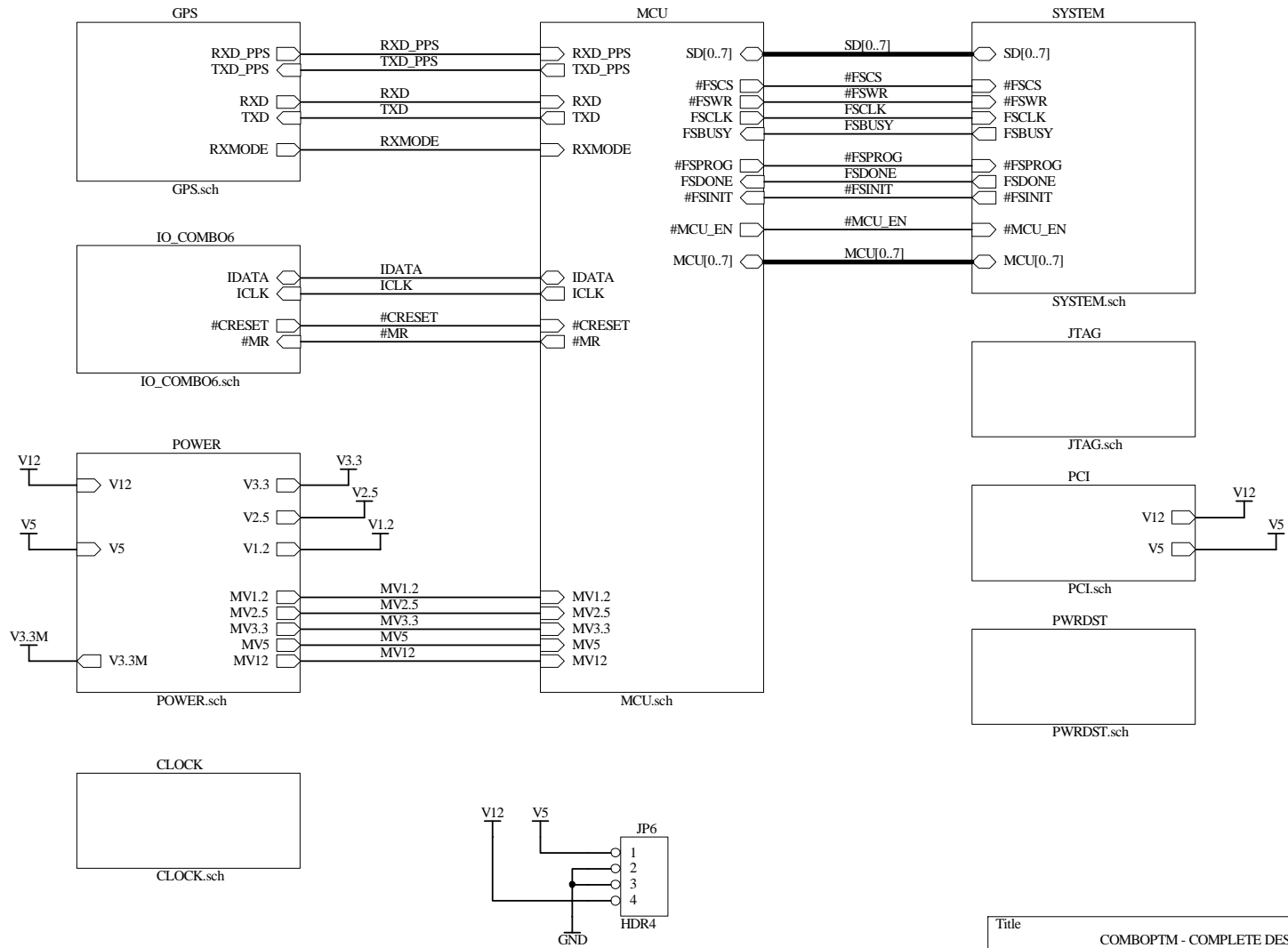
CESNET technical report number 15/2003

Schematic of COMBO-PTM

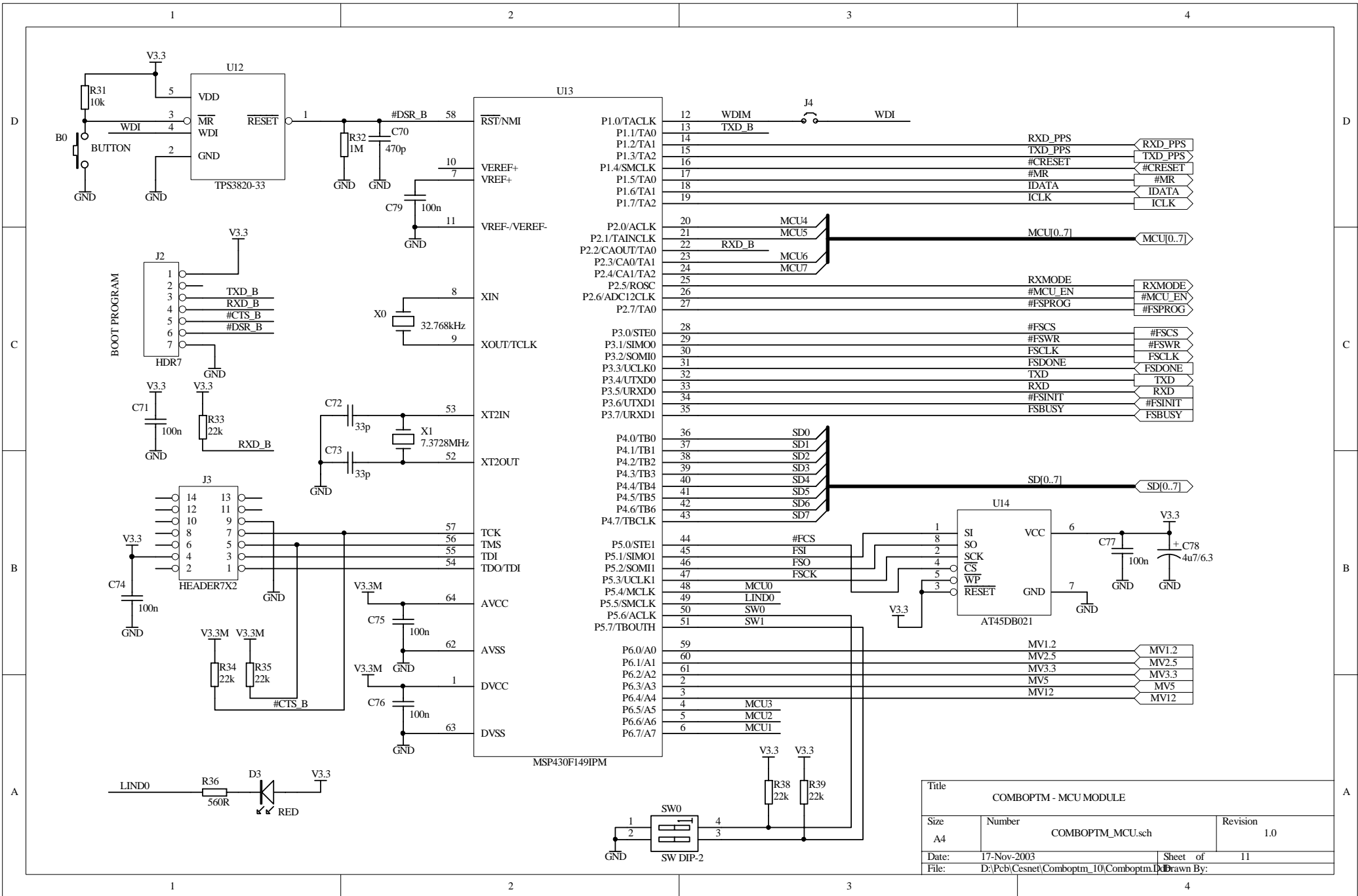
Jiří Novotný, Vladimír Smotlacha, Radomír Bardas

2003-11-18

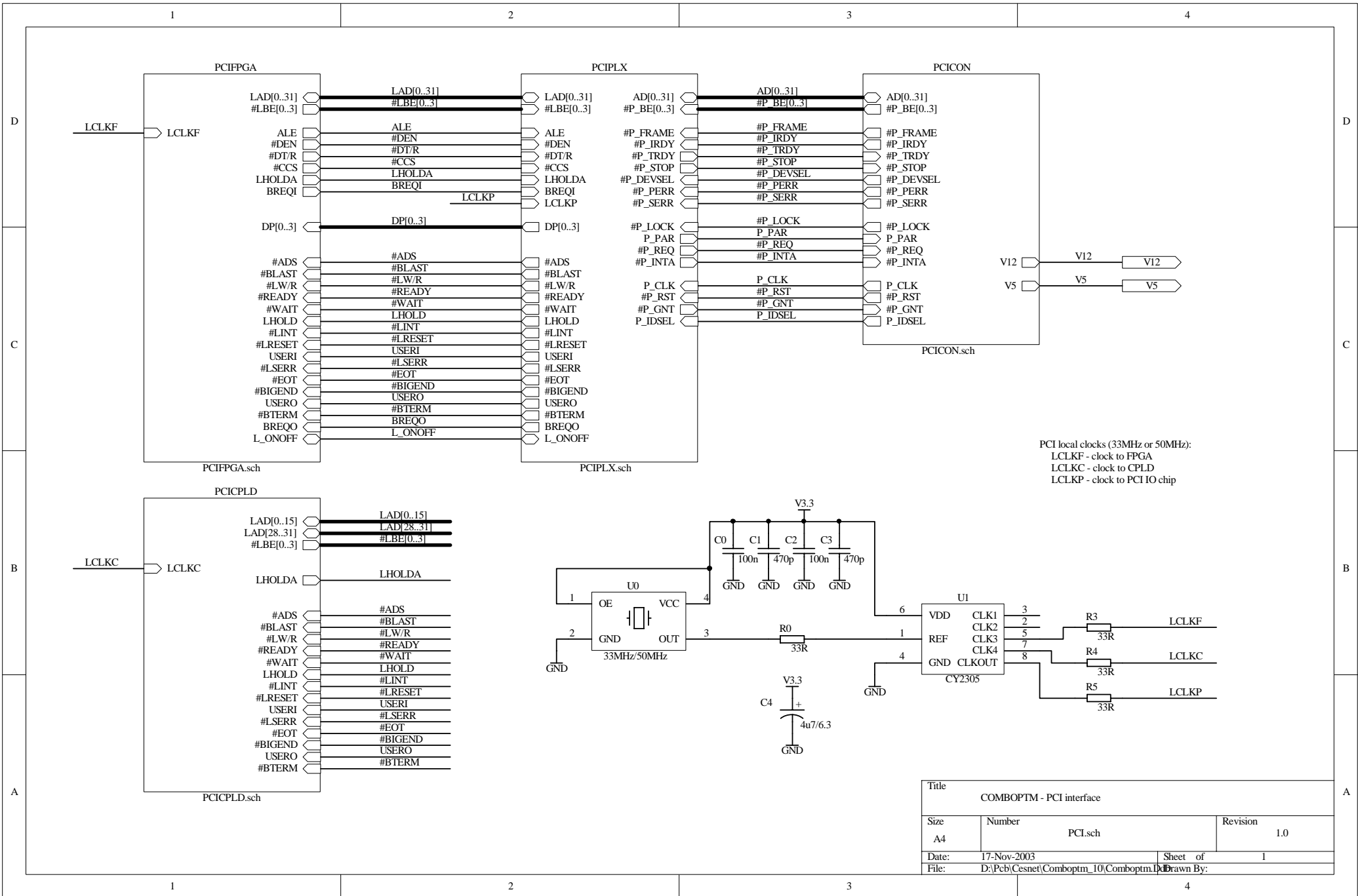




Title			
COMBOPTM - COMPLETE DESIGN			
Size	Number	Revision	
A4	COMBOPTM.sch	1.0	
Date:	17-Nov-2003	Sheet of	0
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		



Title			
COMBOPTM - MCU MODULE			
Size	Number	Revision	
A4	COMBOPTM_MCU.sch	1.0	
Date:	17-Nov-2003	Sheet of	11
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		
	Drawn By:		



Title			
COMBOPTM - PCI interface			
Size	Number	Revision	
A4	PCL.sch	1.0	
Date:	17-Nov-2003	Sheet of	1
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D		

Drawn By:

D

D

C

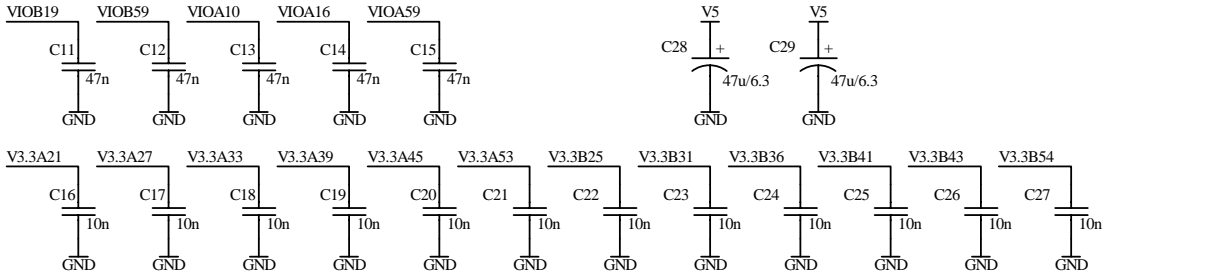
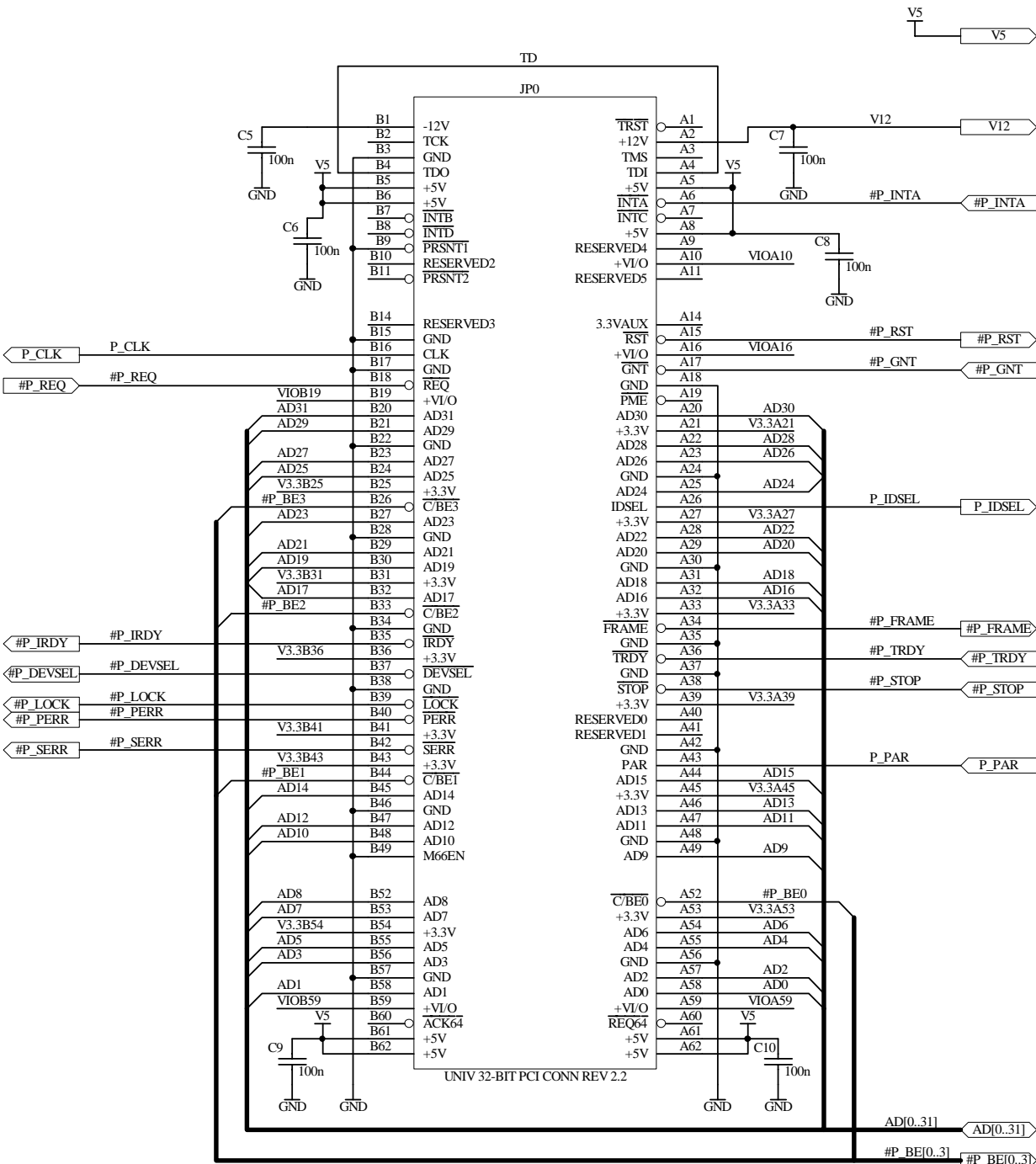
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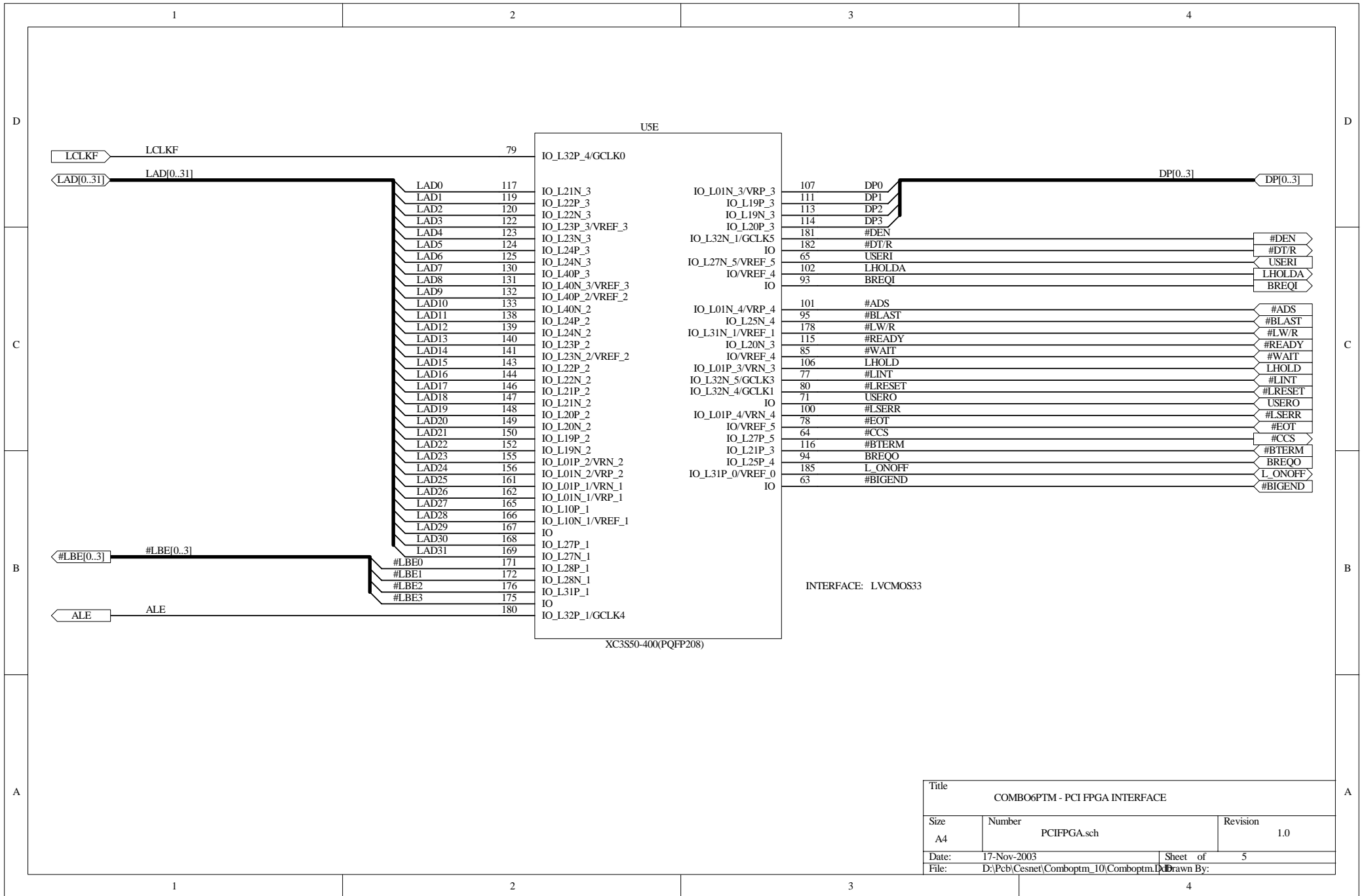
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A

A



Title			
COMBO6PTM - PCI connector			
Size	Number	Revision	
A4	PCICON.sch	1.0	
Date:	17-Nov-2003	Sheet of	2
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		
	Drawn By:		



Title			
COMBO6PTM - PCI FPGA INTERFACE			
Size	Number	Revision	
A4	PCIFPGA.sch	1.0	
Date:	17-Nov-2003	Sheet of	5
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D		
Drawn By:			

U2A

PLX PCI9054

'J' Mode

LAD0	131
LAD1	130
LAD2	129
LAD3	128
LAD4	127
LAD5	126
LAD6	125
LAD7	124
LAD8	123
LAD9	122
LAD10	121
LAD11	120
LAD12	119
LAD13	118
LAD14	117
LAD15	114
LAD16	113
LAD17	112
LAD18	111
LAD19	110
LAD20	107
LAD21	106
LAD22	105
LAD23	104
LAD24	103
LAD25	102
LAD26	101
LAD27	100
LAD28	98
LAD29	97
LAD30	96
LAD31	95

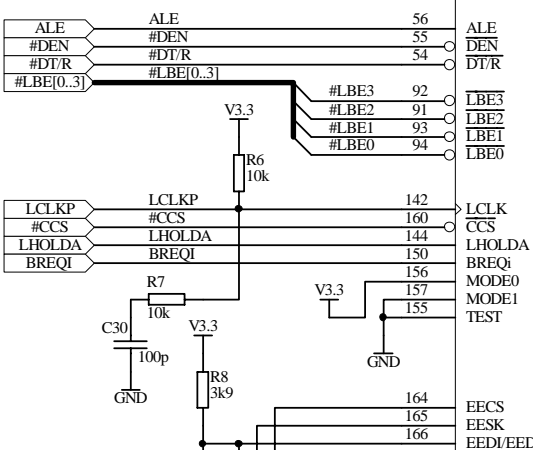
LAD0	87
LAD1	86
LAD2	85
LAD3	84
LAD4	83
LAD5	82
LAD6	81
LAD7	80
LAD8	79
LAD9	78
LAD10	77
LAD11	76
LAD12	75
LAD13	74
LAD14	73
LAD15	72
LAD16	71
LAD17	68
LAD18	67
LAD19	66
LAD20	65
LAD21	64
LAD22	63
LAD23	60
LAD24	59
LAD25	58
LAD26	57
LAD27	56
LAD28	55
LAD29	54
LAD30	53
LAD31	52

AD0	51
AD1	50
AD2	49
AD3	48
AD4	47
AD5	46
AD6	43
AD7	42
AD8	40
AD9	39
AD10	38
AD11	37
AD12	36
AD13	34
AD14	33
AD15	32
AD16	31
AD17	15
AD18	14
AD19	13
AD20	12
AD21	11
AD22	10
AD23	9
AD24	8
AD25	5
AD26	4
AD27	3
AD28	2
AD29	175
AD30	174
AD31	173

LAD[0..31] LAD[0..31]

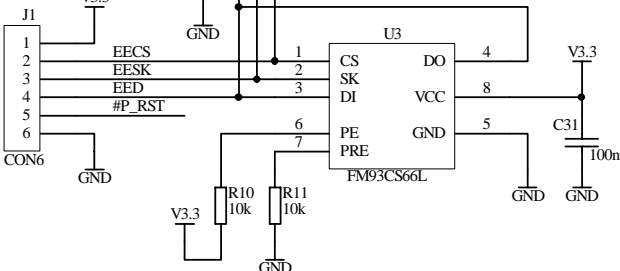
AD[0..31] AD[0..31]

PCI Signals	C/BE0	41	#P_BE0	
PCI Signals	C/BE1	30	#P_BE1	
PCI Signals	C/BE2	16	#P_BE2	
PCI Signals	C/BE3	6	#P_BE3	
PCI Signals	FRAME	17	#P_FRAME	#P_BE[0..3]
PCI Signals	IRDY	18	#P_IRDY	#P_FRAME
PCI Signals	TRDY	21	#P_TRDY	#P_IRDY
PCI Signals	STOP	23	#P_STOP	#P_TRDY
PCI Signals	DEVSEL	22	#P_DEVSEL	#P_STOP
PCI Signals	PERR	25	#P_PERR	#P_DEVSEL
PCI Signals	SERR	26	#P_SERR	#P_PERR
PCI Signals	LOCK	24	#P_LOCK	#P_SERR
PCI Signals	PAR	29	P_PAR	#P_LOCK
PCI Signals	REQ	172	#P_REQ	P_PAR
PCI Signals	INTA	168	#P_INTA	#P_REQ
PCI Signals	PME	167		#P_INTA
PCI Signals	ENUM	52		
PCI Signals	PCLK	170	P_CLK	P_CLK
PCI Signals	RST	169	#P_RST	#P_RST
PCI Signals	GNT	171	#P_GNT	#P_GNT
PCI Signals	IDSEL	7	P_IDSEL	#P_GNT
LEDOn/LEDin	L_ONOFF	53	L_ONOFF	L_ONOFF
DP0	DP0	139	DP0	
DP1	DP1	138	DP1	
DP2	DP2	137	DP2	
DP3	DP3	136	DP3	
	DP[0..3]		DP[0..3]	DP[0..3]
ADS	ADS	145	#ADS	#ADS
BLAST	BLAST	148	#BLAST	#BLAST
LW/R	LW/R	90	#LW/R	#LW/R
READY	READY	135	#READY	#READY
WAIT	WAIT	151	#WAIT	#WAIT
LHOLD	LHOLD	143	LHOLD	LHOLD
LINT	LINT	154	#LINT	#LHOLD
LRESET	LRESET	152	#LRESET	#LINT
USERi/DACK0/LLOCKi	USERi	159	USERi	#LRESET
LSERR	LSERR	146	#LSERR	USERi
DMP/AF/EOT	EOT	153	#EOT	#LSERR
BIGEND	BIGEND	163	#BIGEND	#EOT
USERo/DREQ/LLOCKo	USERo	158	USERo	#BIGEND
BTERM	BTERM	134	#BTERM	USERo
BREQo	BREQo	149	BREQo	#BTERM

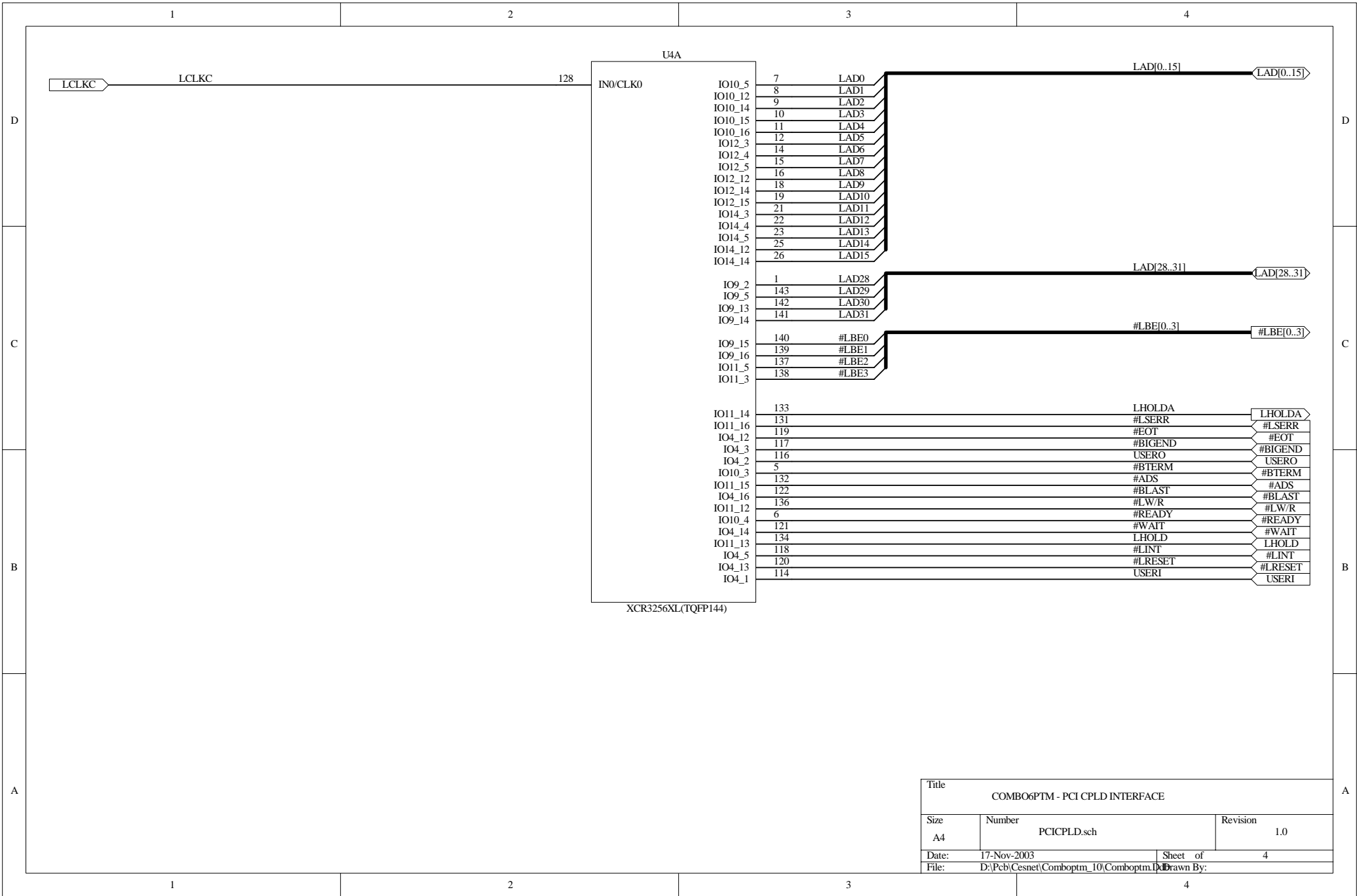


PCI9054(PQFP176)

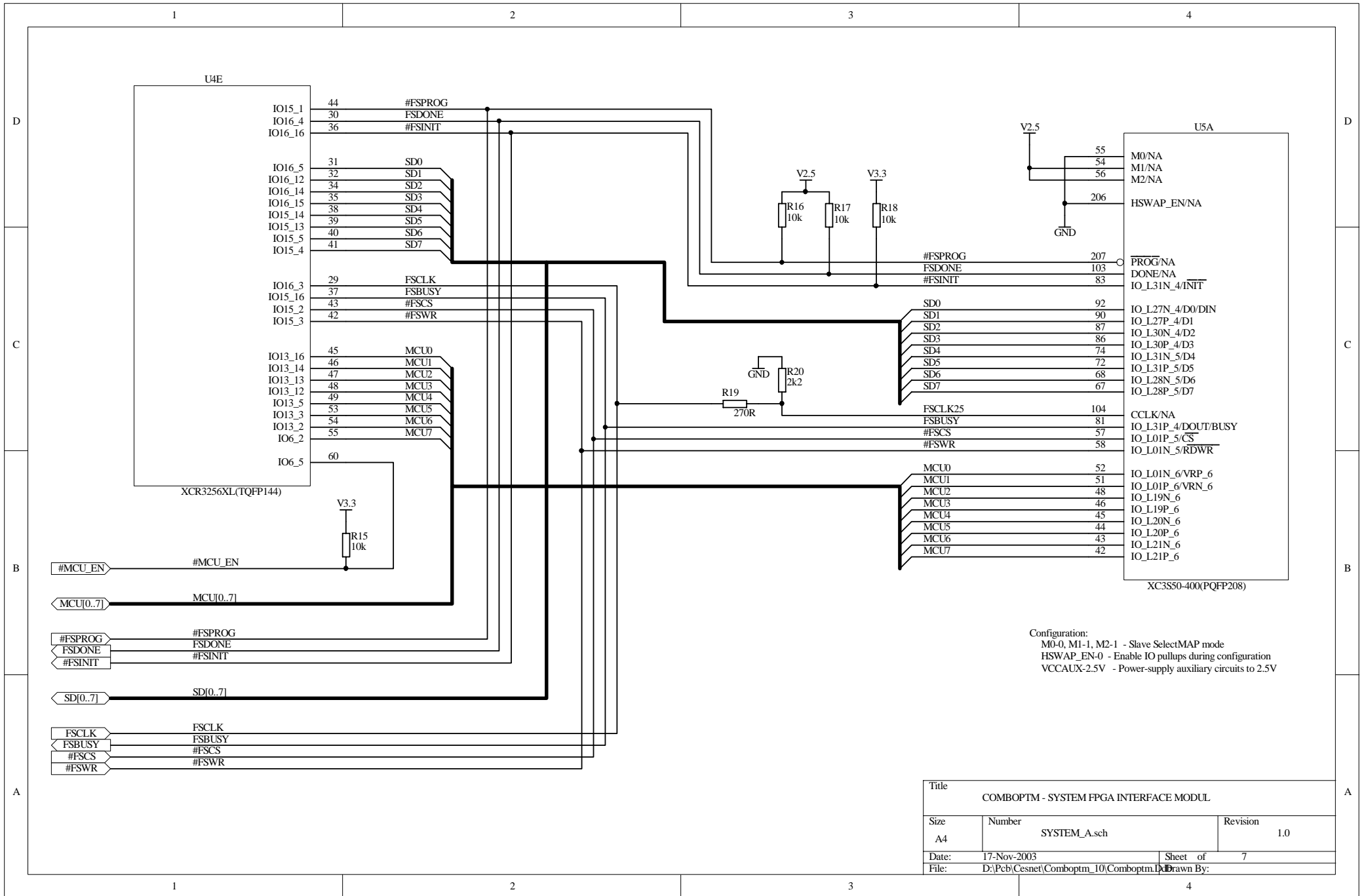
Power-supply PCI9054 - block PWRDST.sch



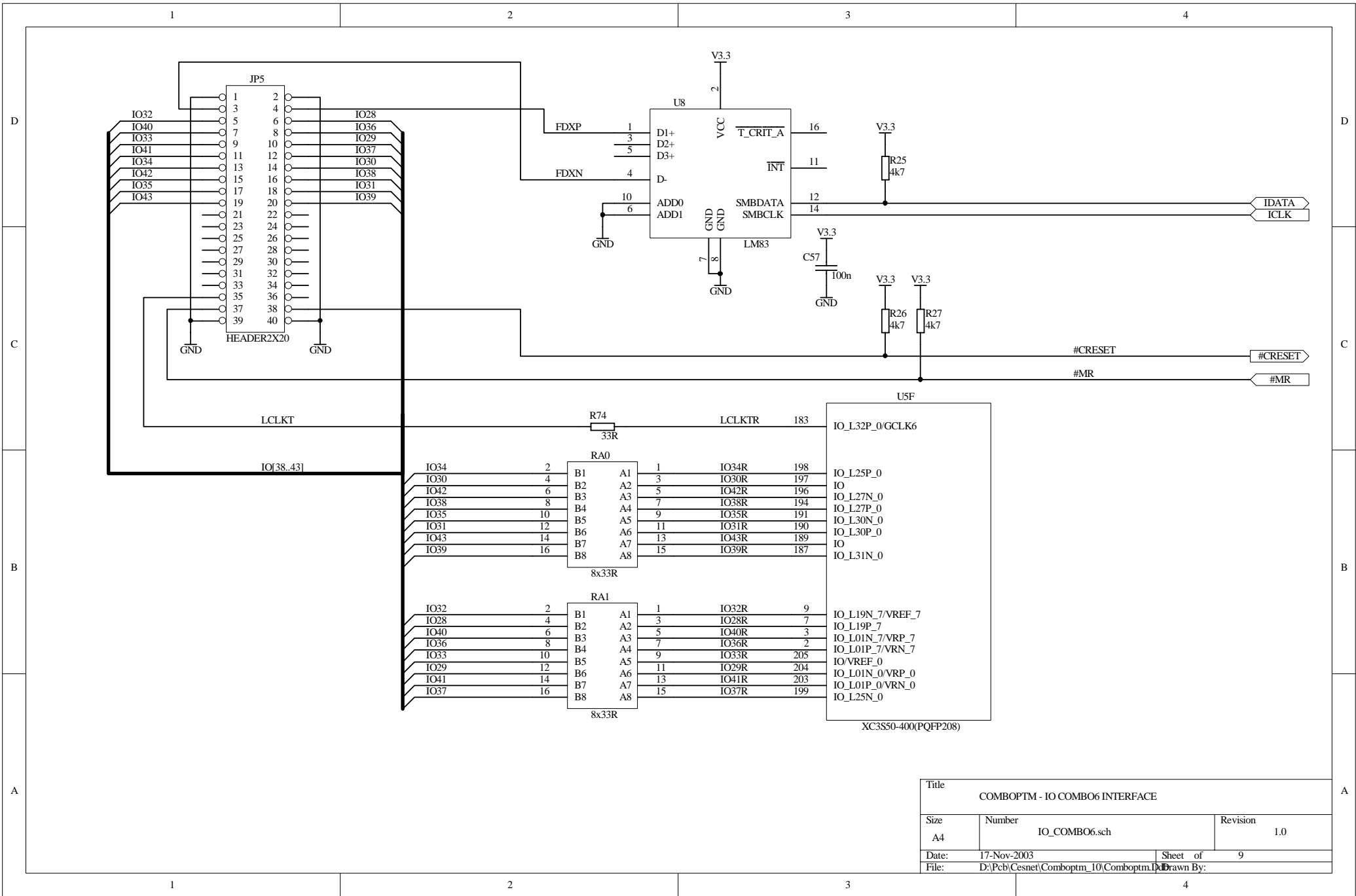
Title			
COMBO6PTM - PCI PLX PCI9054 interface			
Size	Number	Revision	
A4	PCIPLX.sch	1.0	
Date:	17-Nov-2003	Sheet of	3
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		
Drawn By:			



Title			COMBO6PTM - PCI CPLD INTERFACE		
Size	Number	Revision			
A4	PCICPLD.sch	1.0			
Date:	17-Nov-2003	Sheet of	4		
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D				
		Drawn By:			

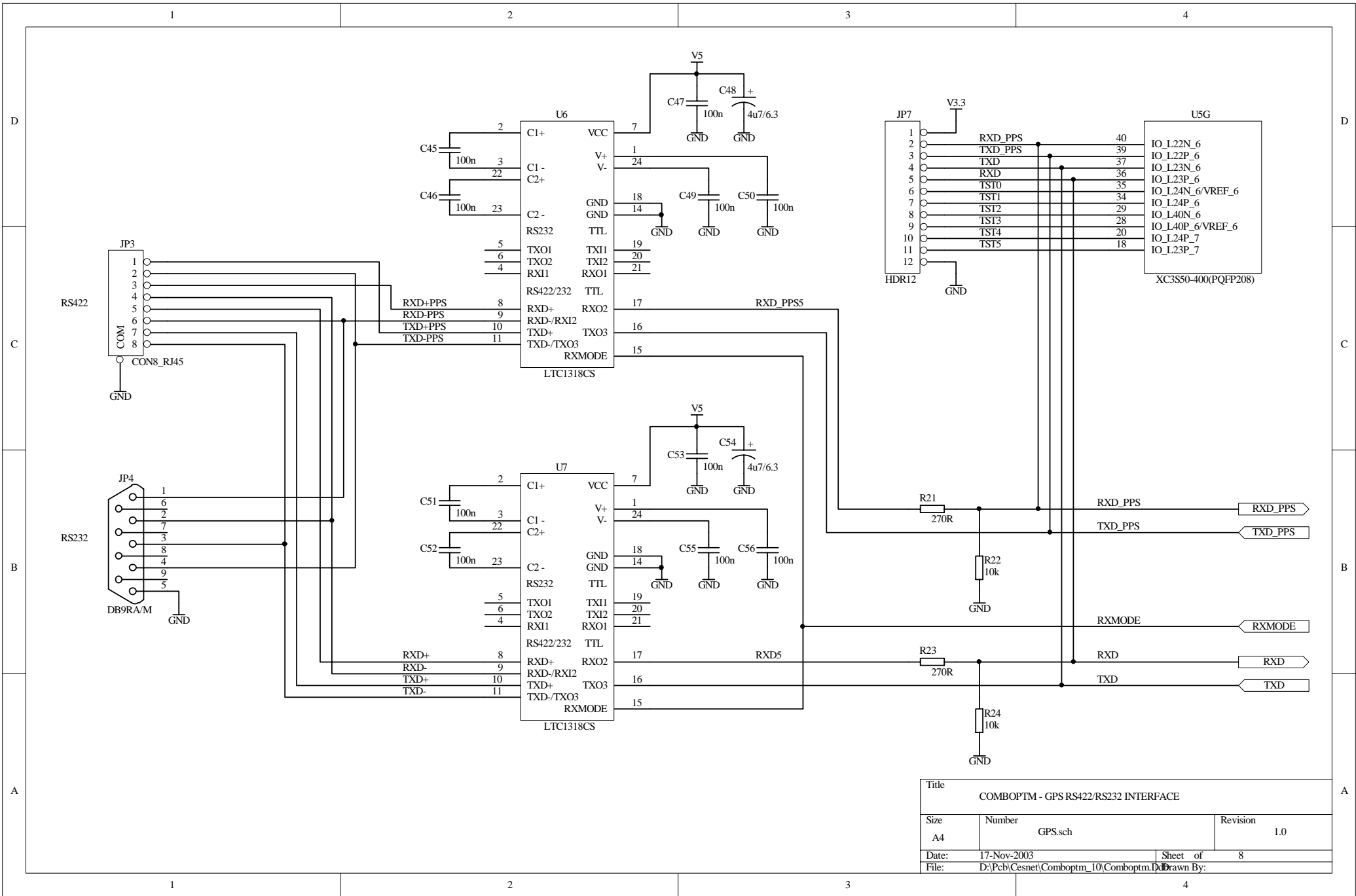


Title			COMBOPTM - SYSTEM FPGA INTERFACE MODUL		
Size	Number	Revision		1.0	
A4	SYSTEM_A.sch				
Date:	17-Nov-2003	Sheet of	7		
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10		Drawn By:		

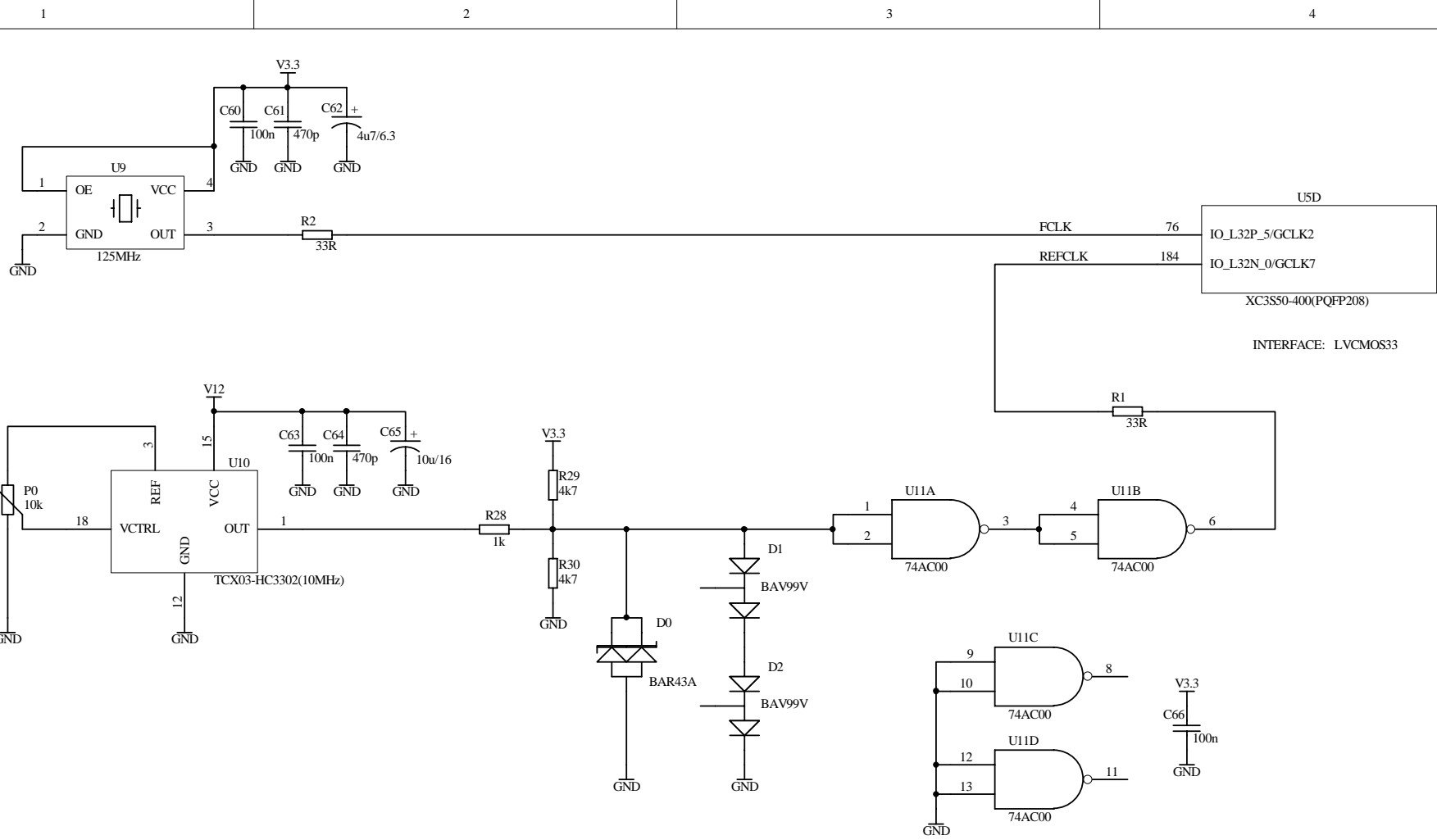


Title			
COMBOPTM - IO COMBO6 INTERFACE			
Size	Number	Revision	
A4	IO_COMBO6.sch	1.0	
Date:	17-Nov-2003	Sheet of	9
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		

Drawn By:

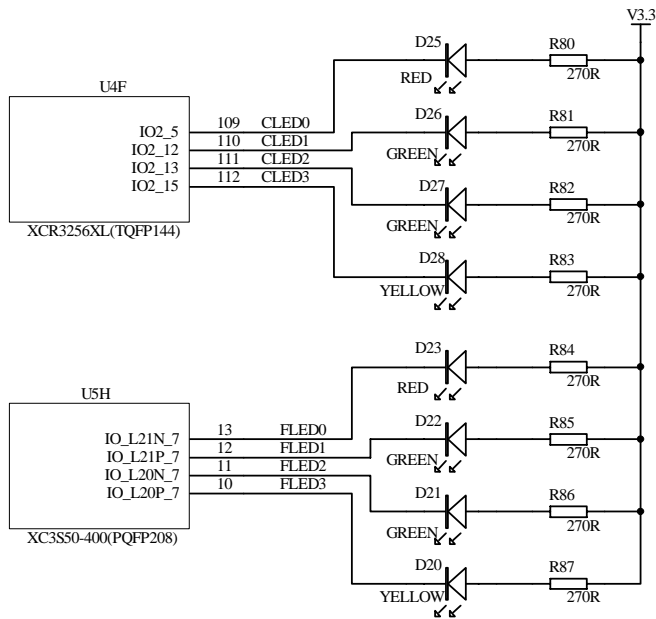
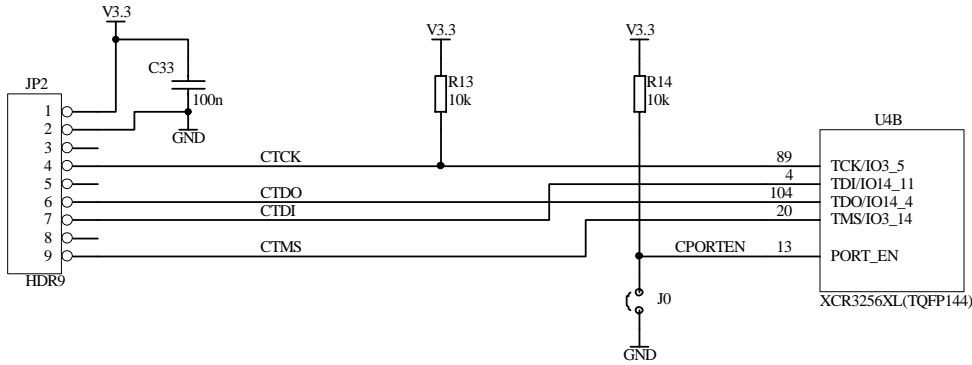
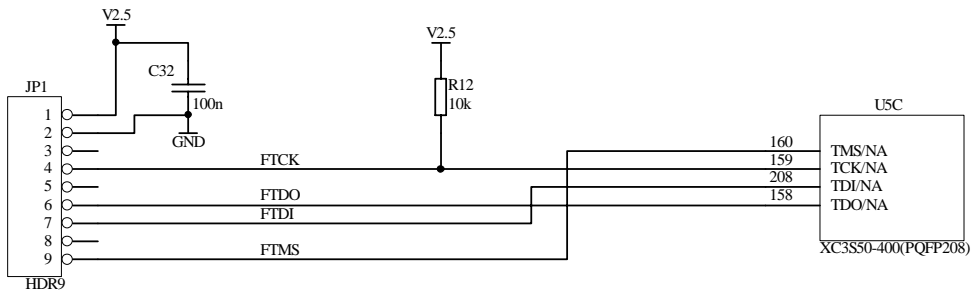


Title			
COMBOPTM - GPS RS422/RS232 INTERFACE			
Size	Number	Revision	
A4	GPS.sch	1.0	
Date:	17-Nov-2003	Sheet of	8
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D		
	Drawn By:		

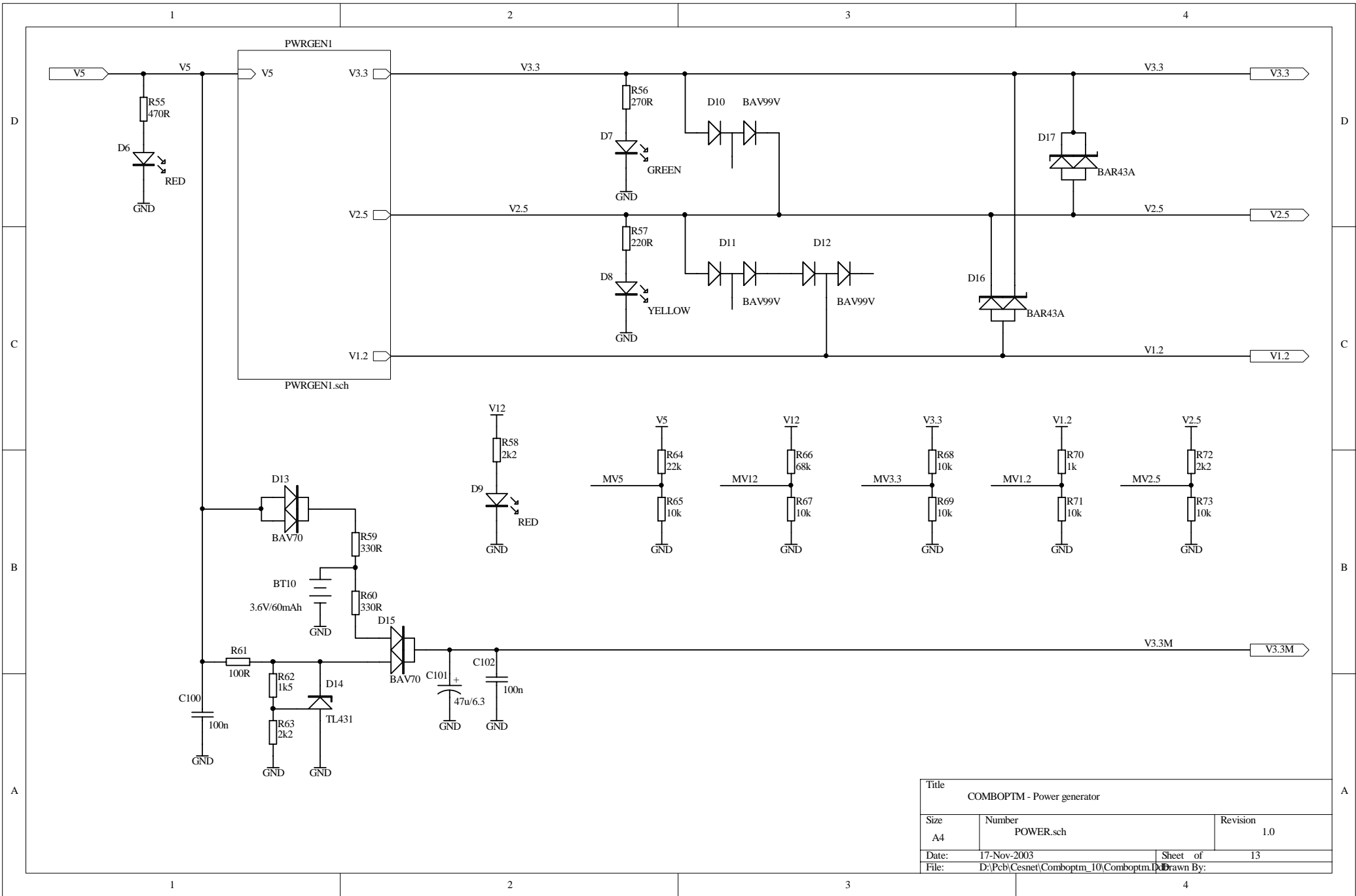


Title			COMBOPTM - CLOCK INTERFACE		
Size	Number	Revision			
A4	CLOCK.sch	1.0			
Date:	17-Nov-2003	Sheet of	10		
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D				

Drawn By:

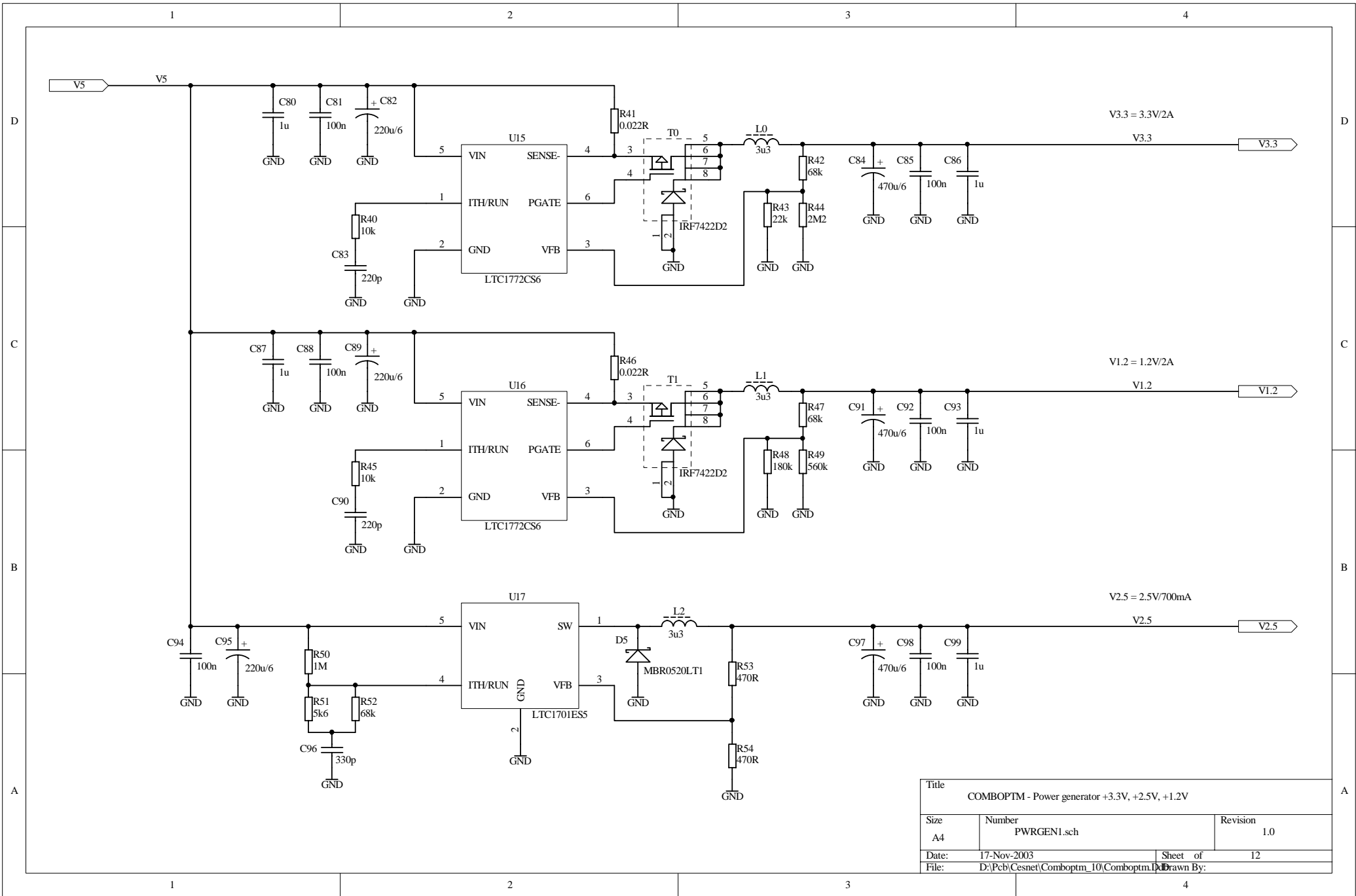


Title			
COMBOPTM - JTAG AND LED INTERFACE			
Size	Number	Revision	
A4	JTAG_LED.sch	1.0	
Date:	17-Nov-2003	Sheet of	6
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D		
		Drawn By:	

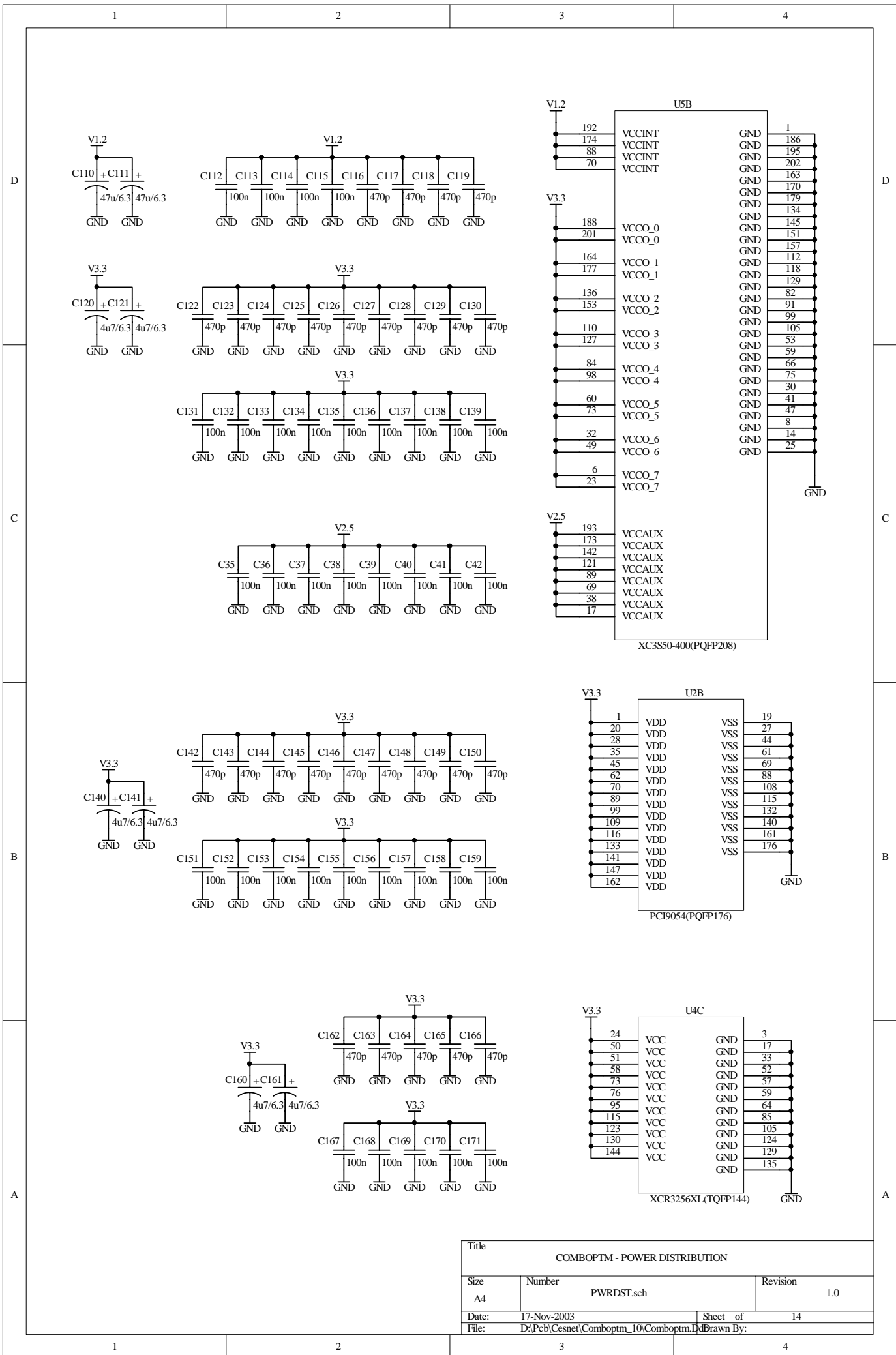


Title COMBOPTM - Power generator		
Size A4	Number POWER.sch	Revision 1.0
Date: 17-Nov-2003	Sheet of 13	
File: D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D		

Drawn By:



Title		
COMBOPTM - Power generator +3.3V, +2.5V, +1.2V		
Size	Number	Revision
A4	PWRGEN1.sch	1.0
Date:	17-Nov-2003	Sheet of
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm.D	12
Drawn By:		



Title			
COMBOPTM - POWER DISTRIBUTION			
Size	Number	Revision	
A4	PWRDST.sch	1.0	
Date:	17-Nov-2003	Sheet of	14
File:	D:\Pcb\Cesnet\Comboptm_10\Comboptm_10.D		
		Drawn By:	