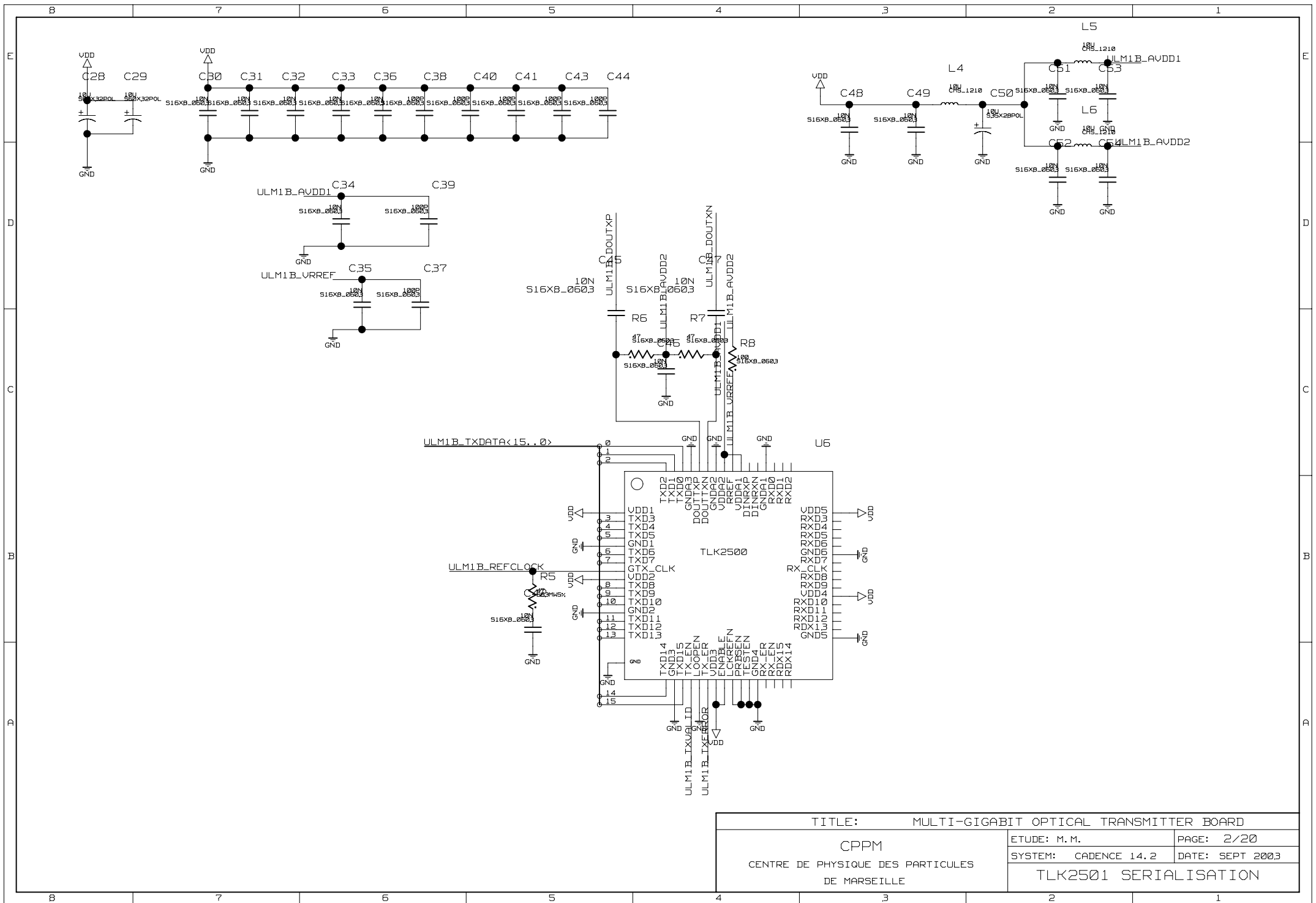
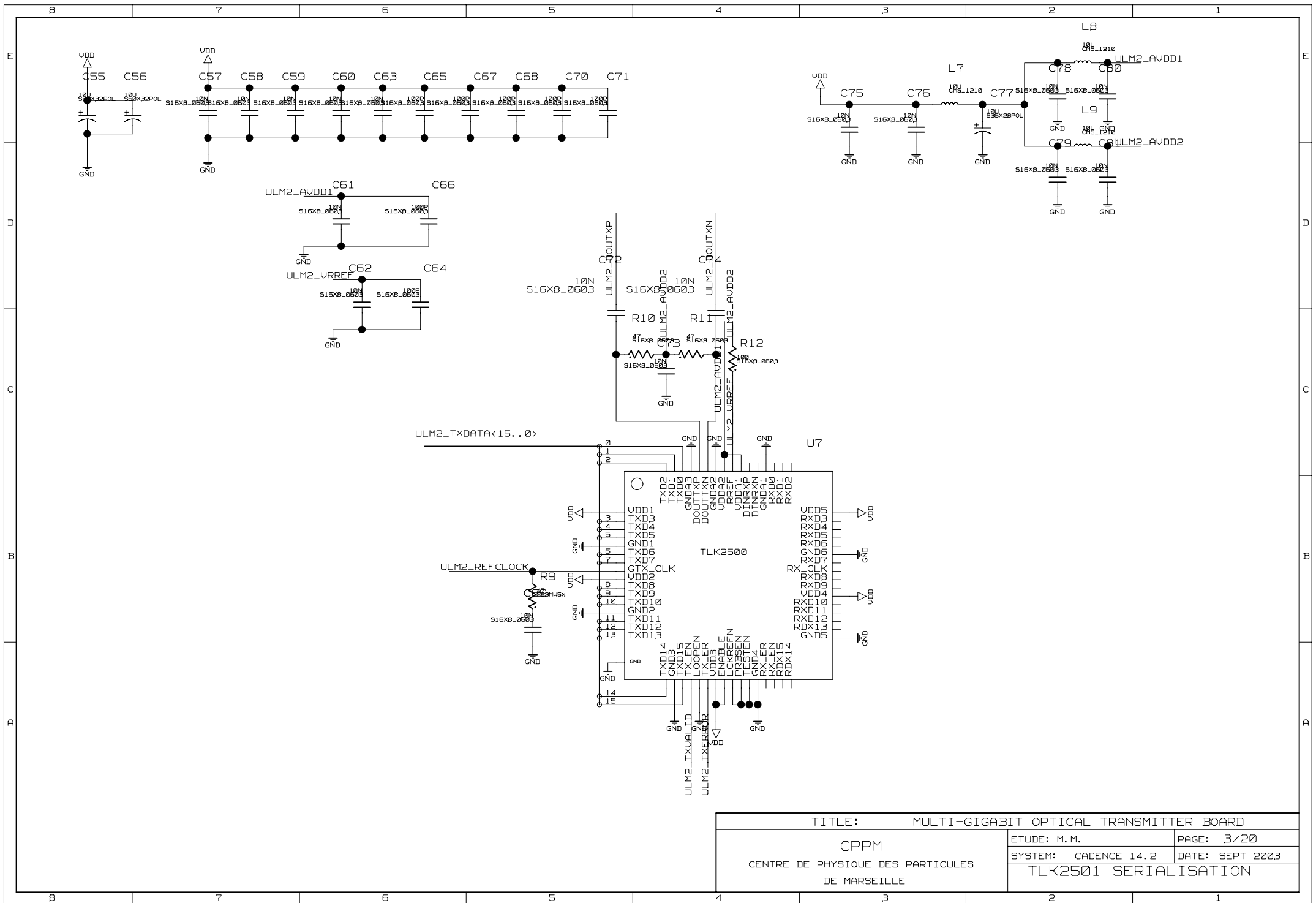


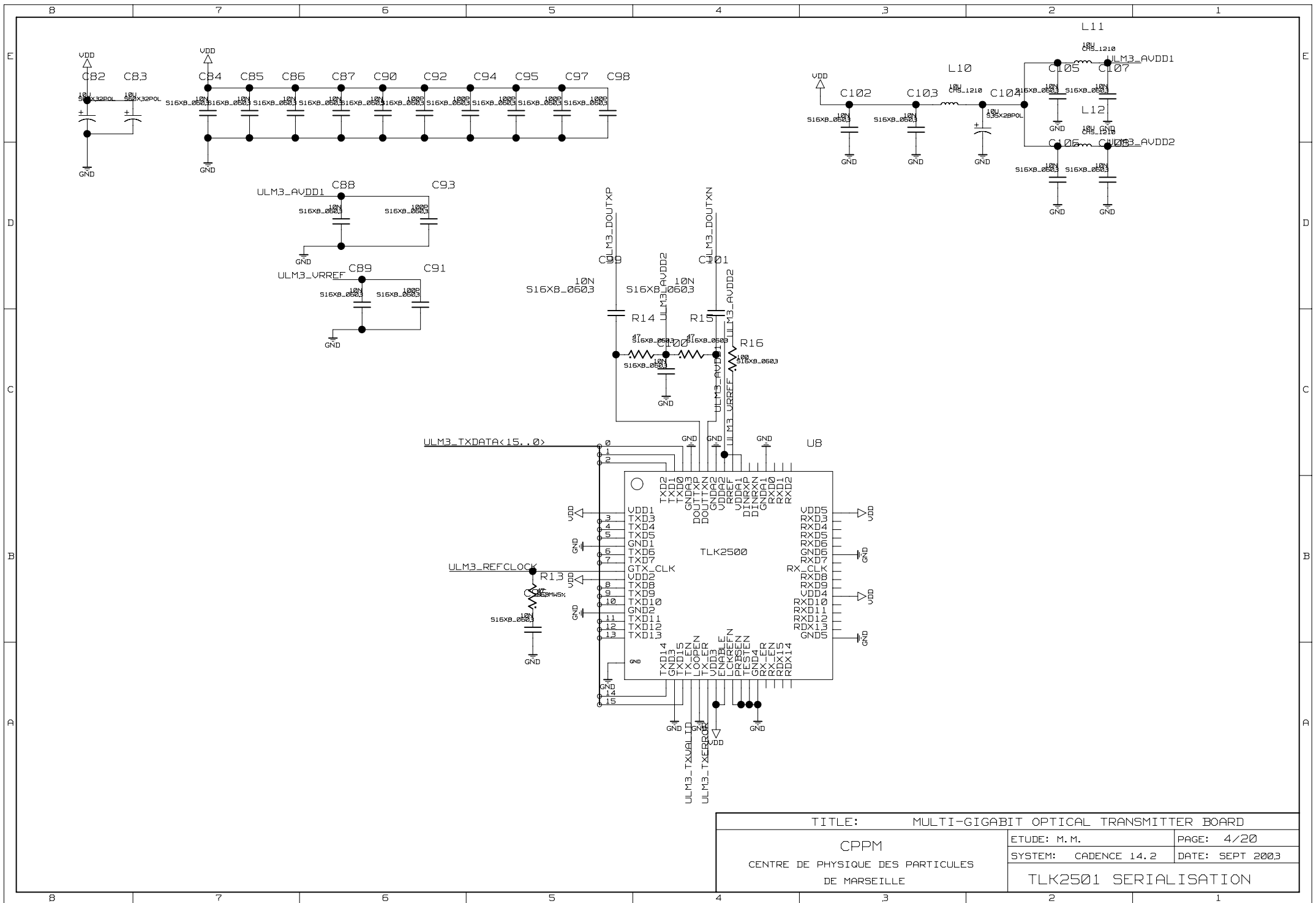
TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 1/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALIZATION		



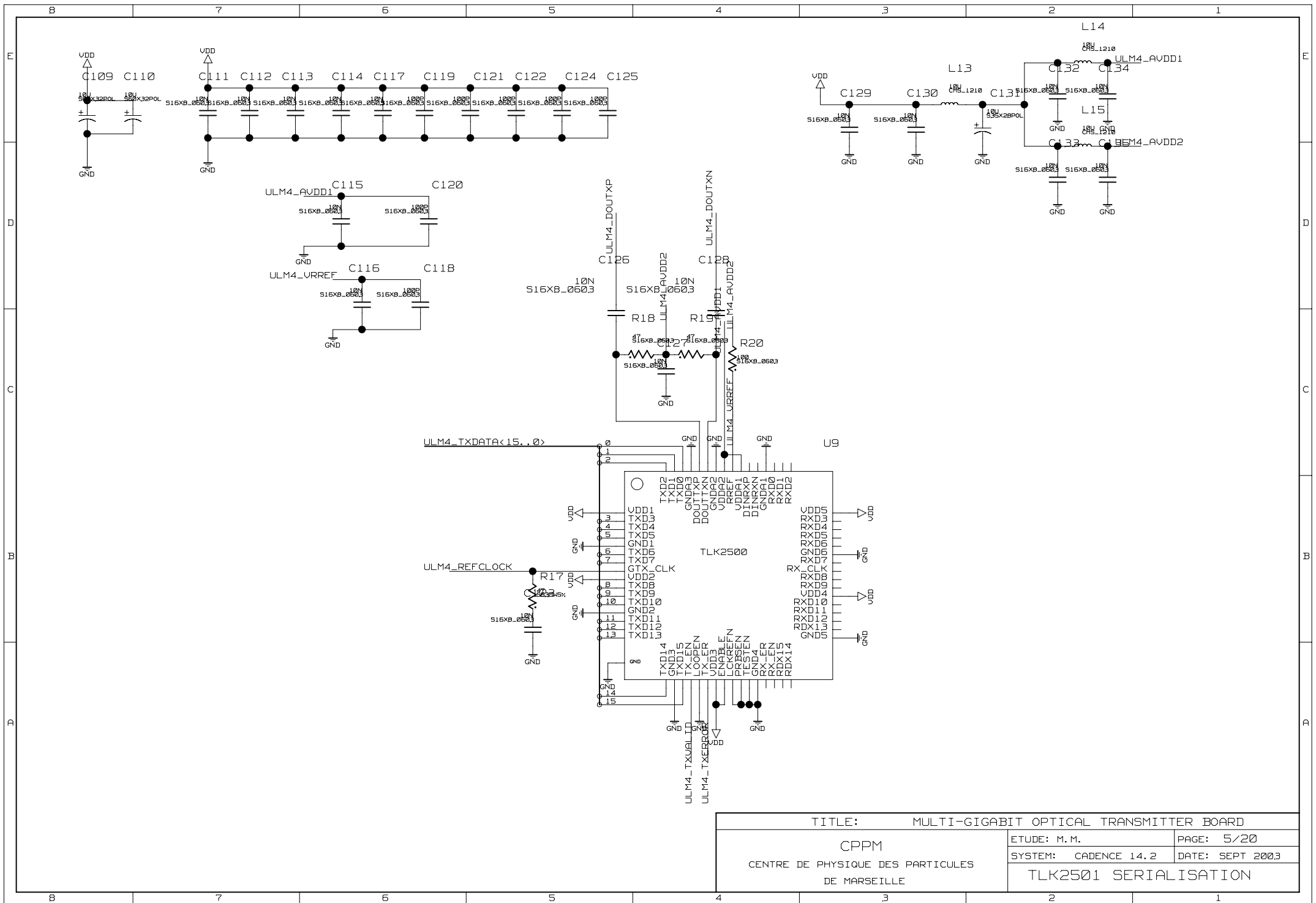
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CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 2/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		



TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 3/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		

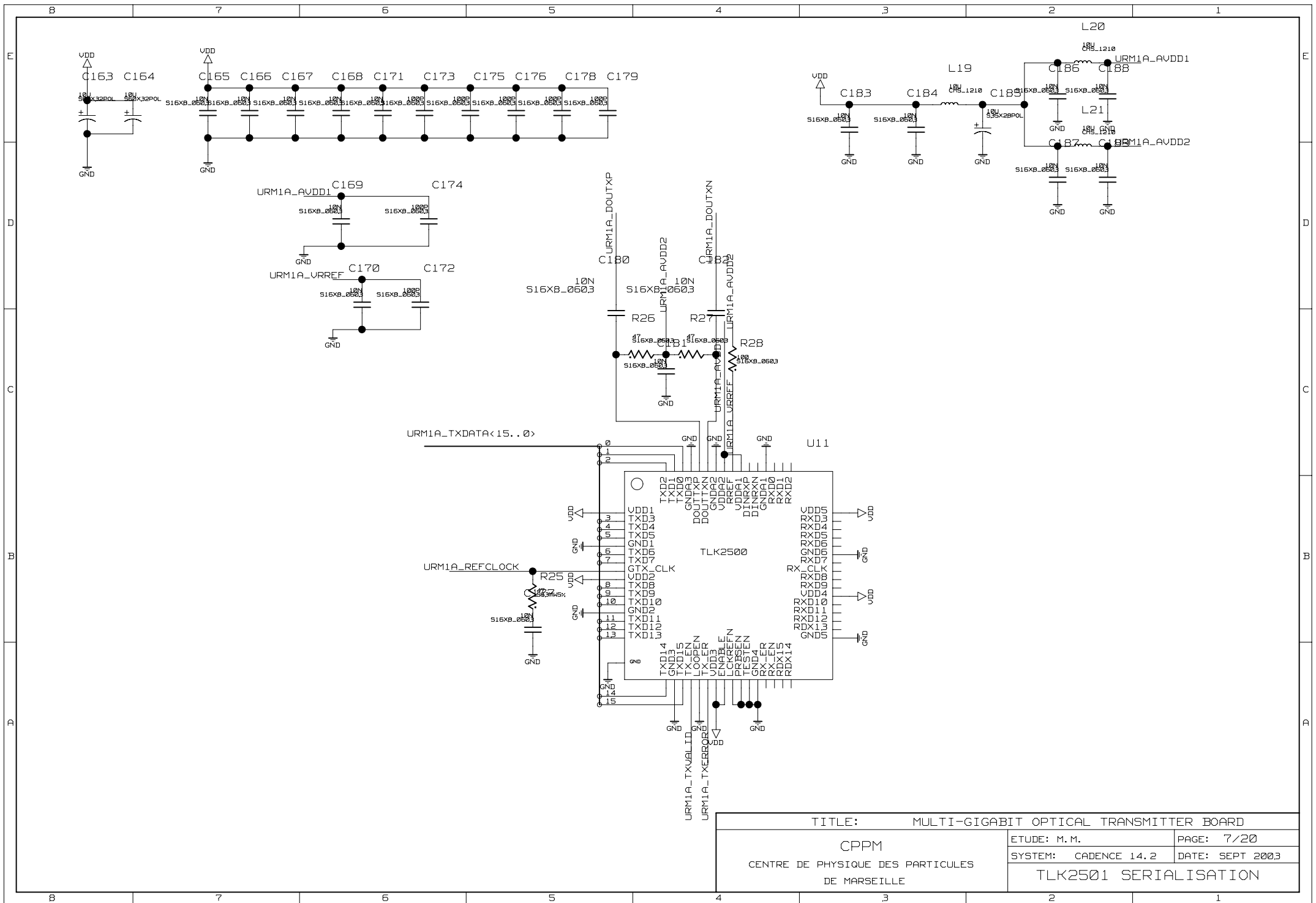


TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 4/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		

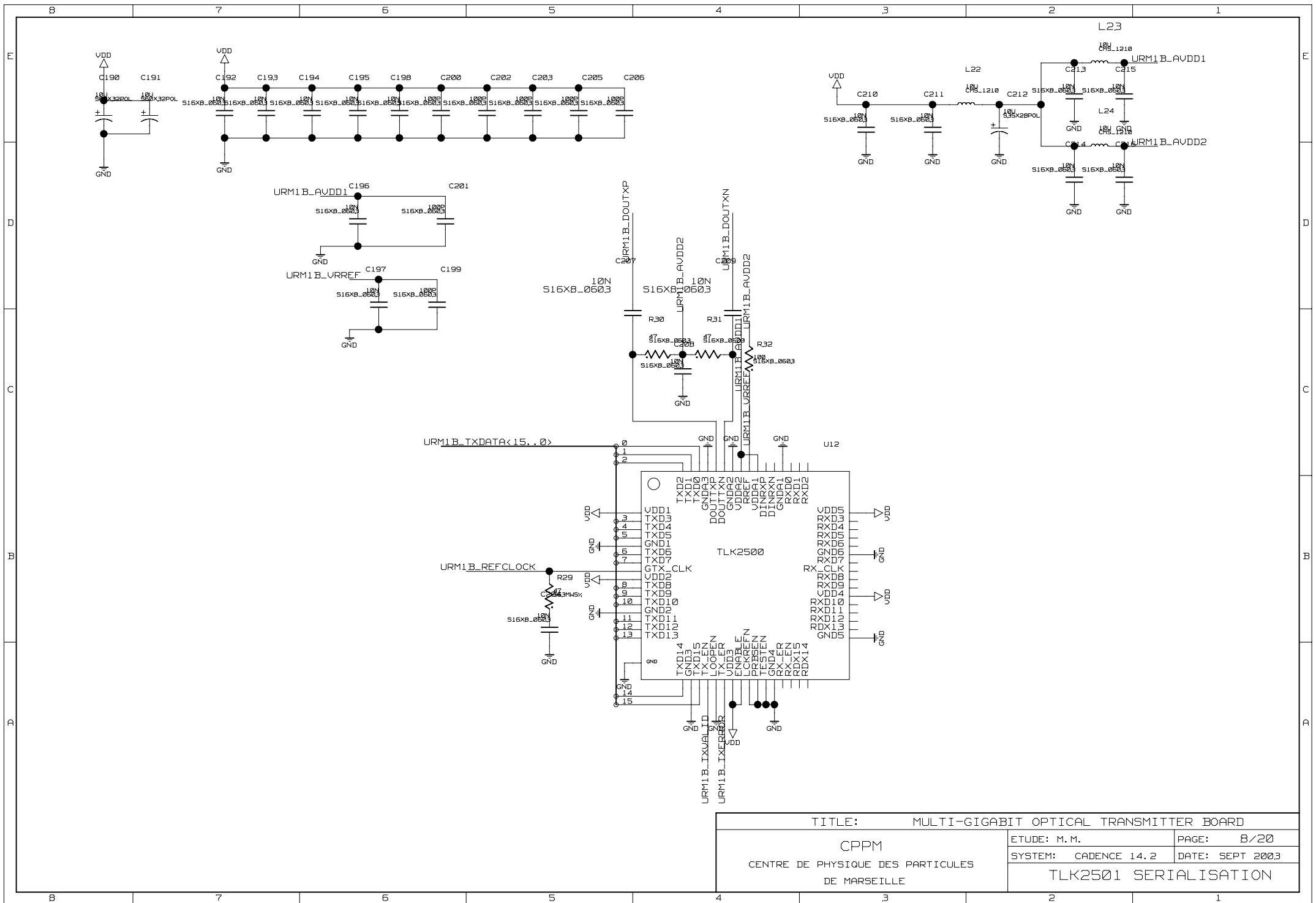


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CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 5/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		

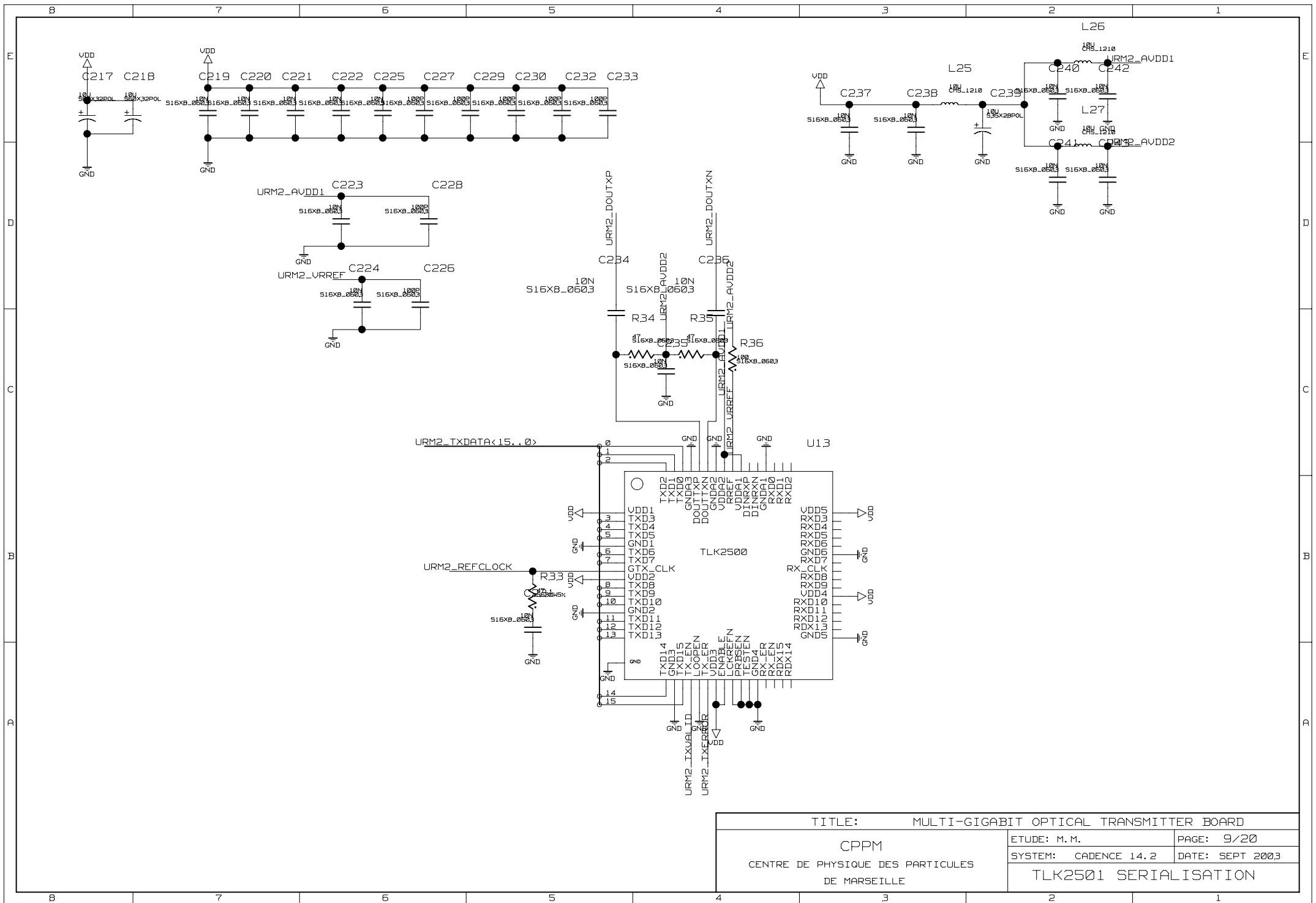




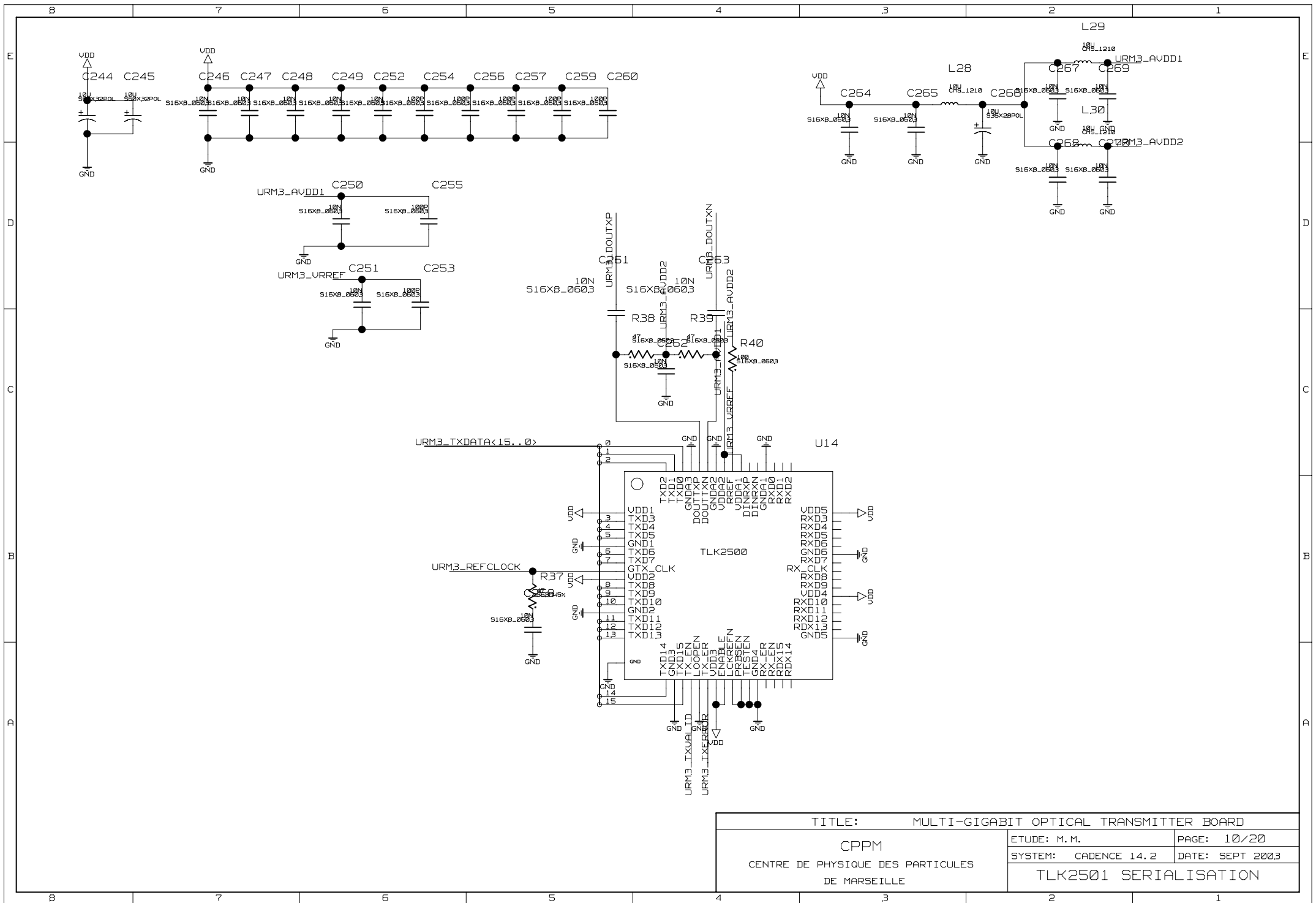
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CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE		PAGE: 7/20
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		DATE: SEPT 2003
TLK2501 SERIALISATION		



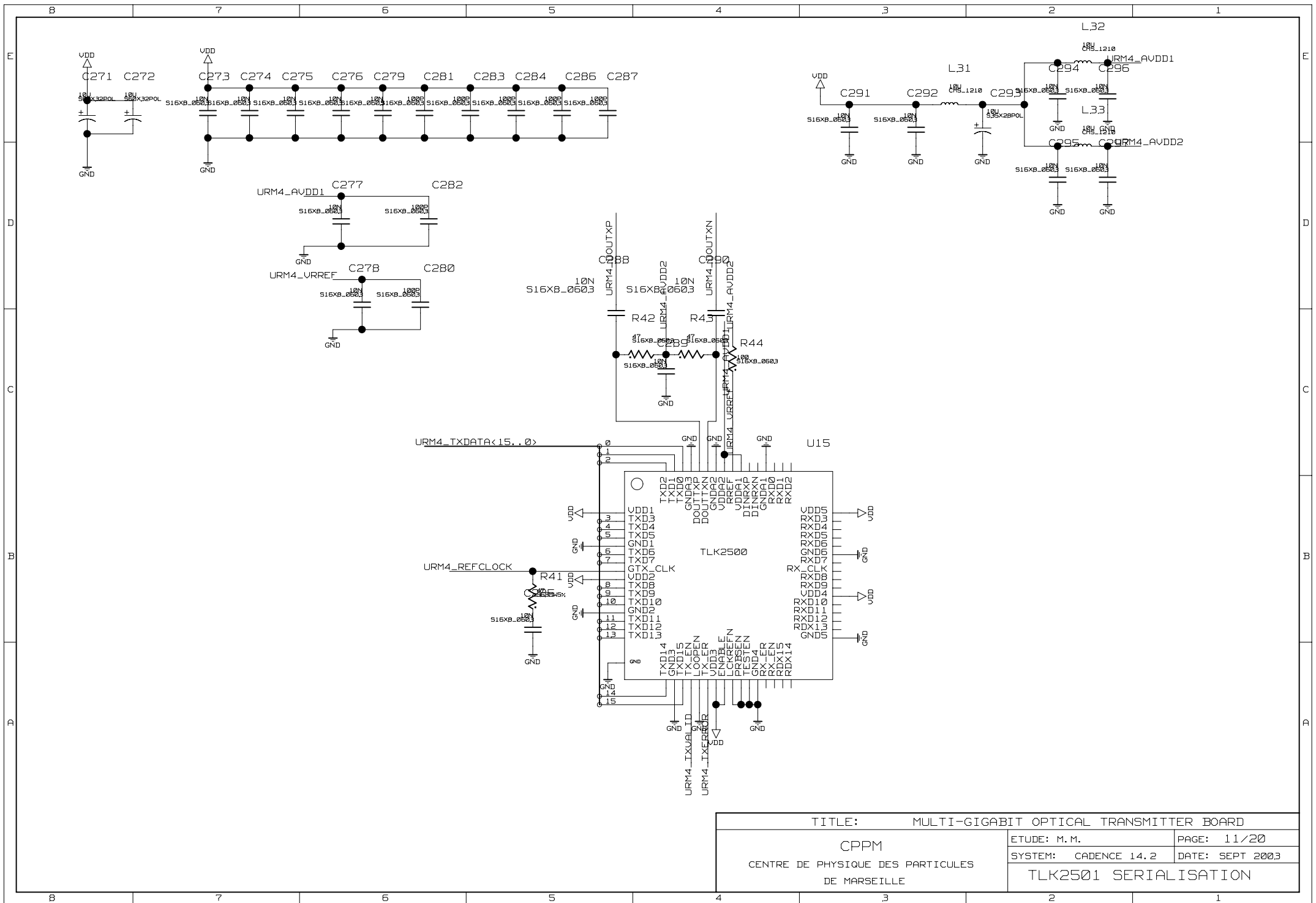
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CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 8/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		



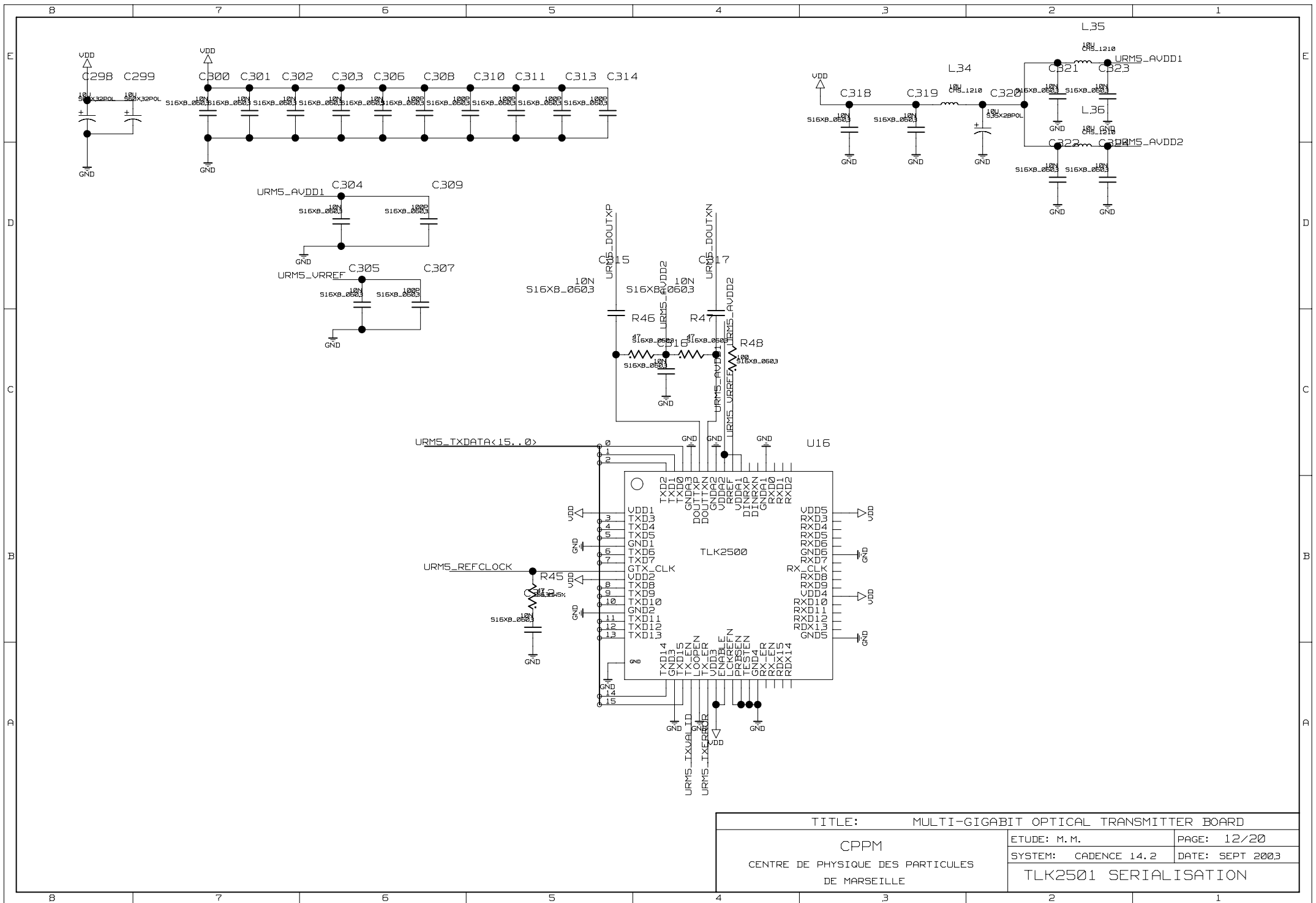
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CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 9/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
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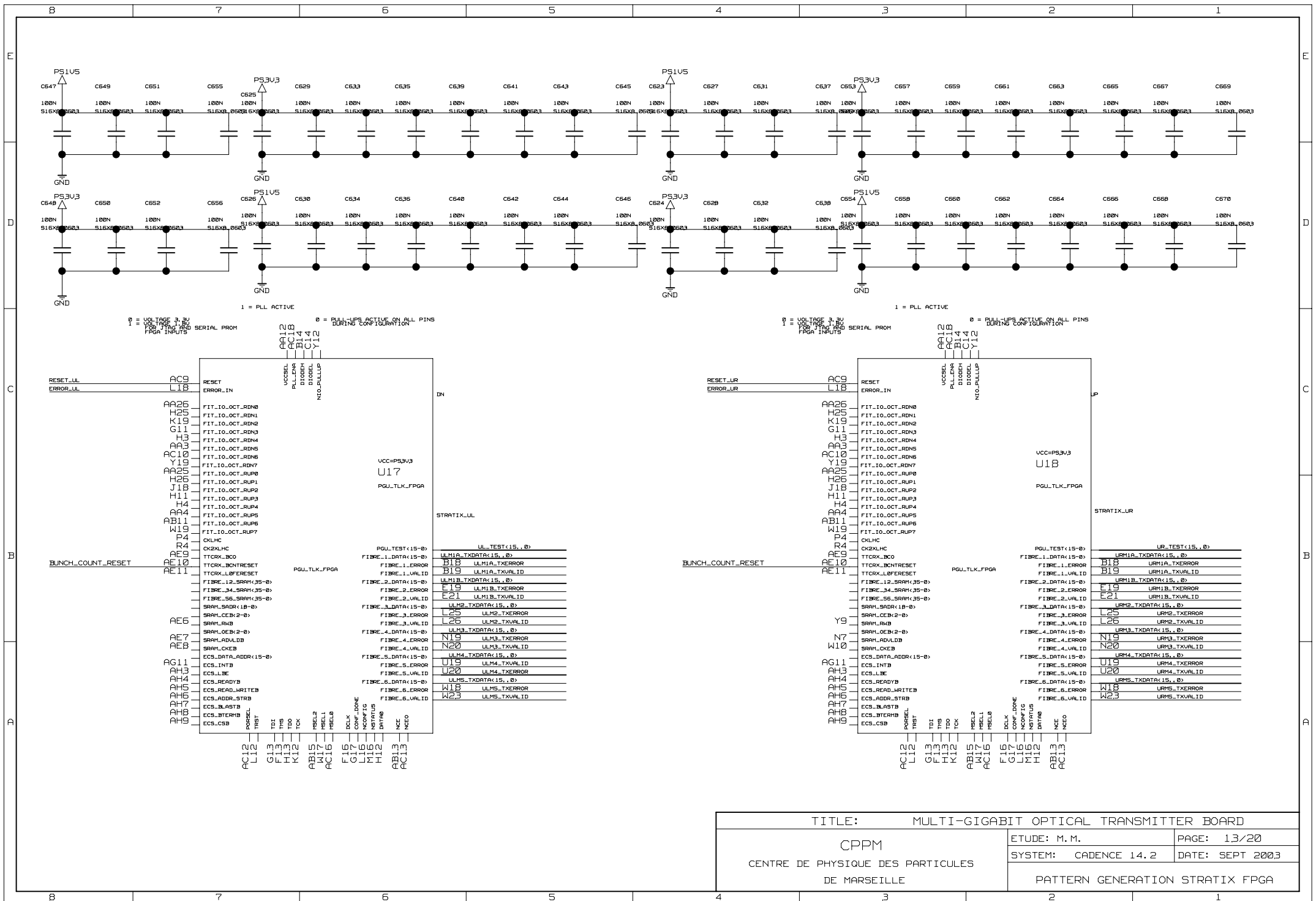
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CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 10/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		



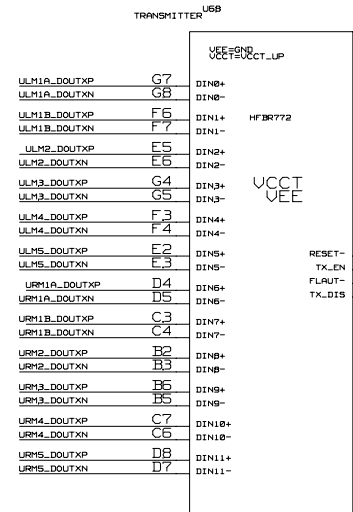
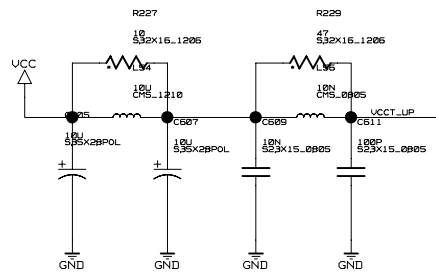
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CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE		PAGE: 11/20
		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
TLK2501 SERIALISATION		



TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM	ETUDE: M. M.	PAGE: 12/20
CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE	SYSTEM: CADENCE 14.2	DATE: SEPT 2003
TLK2501 SERIALISATION		



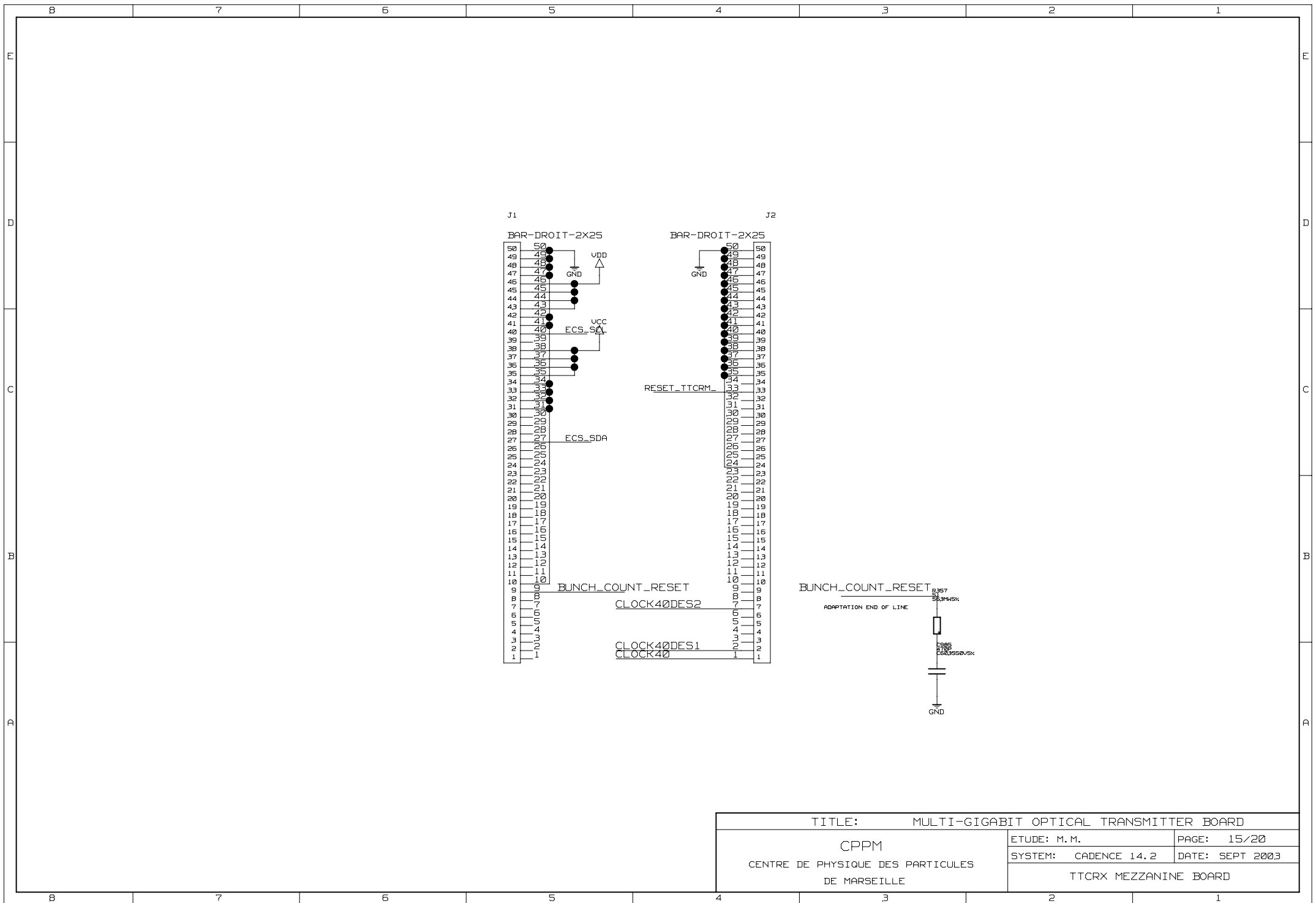
TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM	ETUDE: M. M.	PAGE: 13/20
CENTRE DE PHYSIQUE DES PARTICULES	SYSTEM: CADENCE 14.2	DATE: SEPT 2003
DE MARSEILLE		
PATTERN GENERATION STRATIX FPGA		



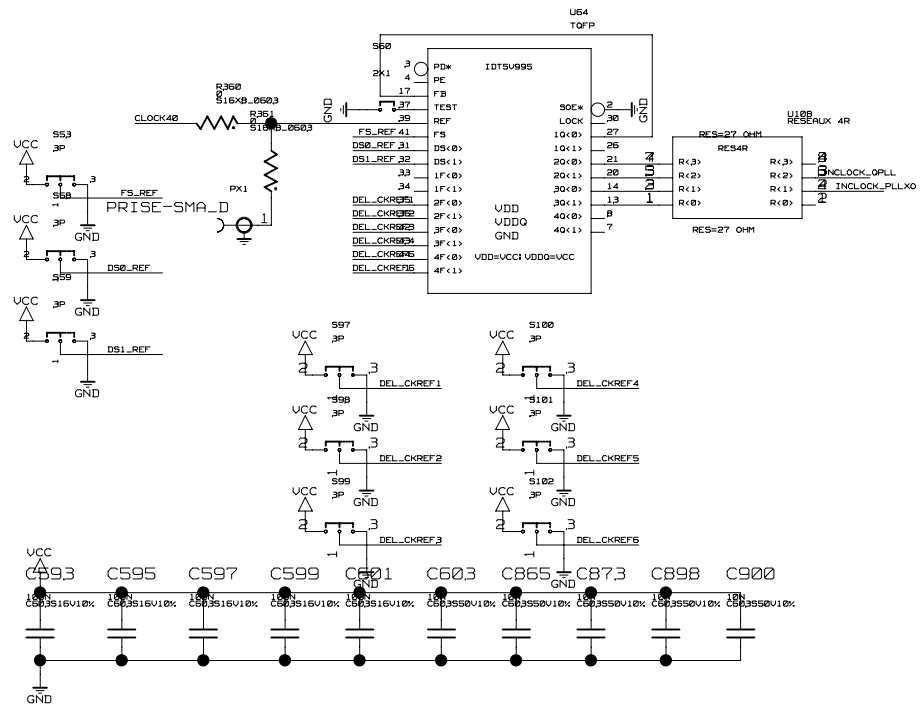
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CPPM  
CENTRE DE PHYSIQUE DES PARTICULES  
DE MARSEILLE

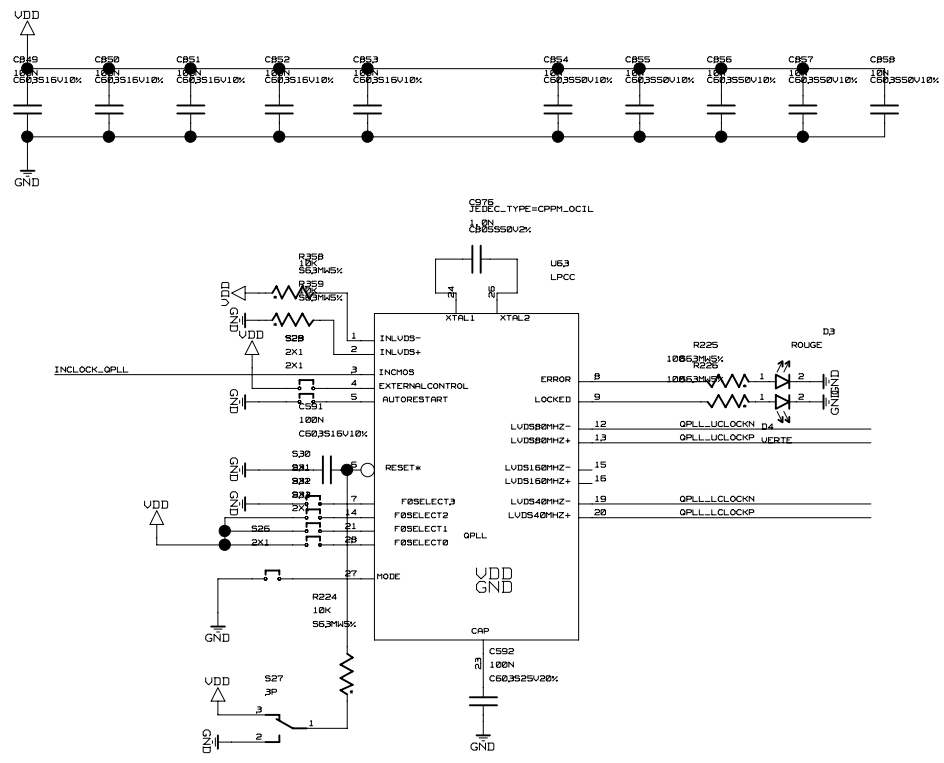
ETUDE: M. M.	PAGE: 14/20
SYSTEM: CADENCE 14.2	DATE: SEPT 2003
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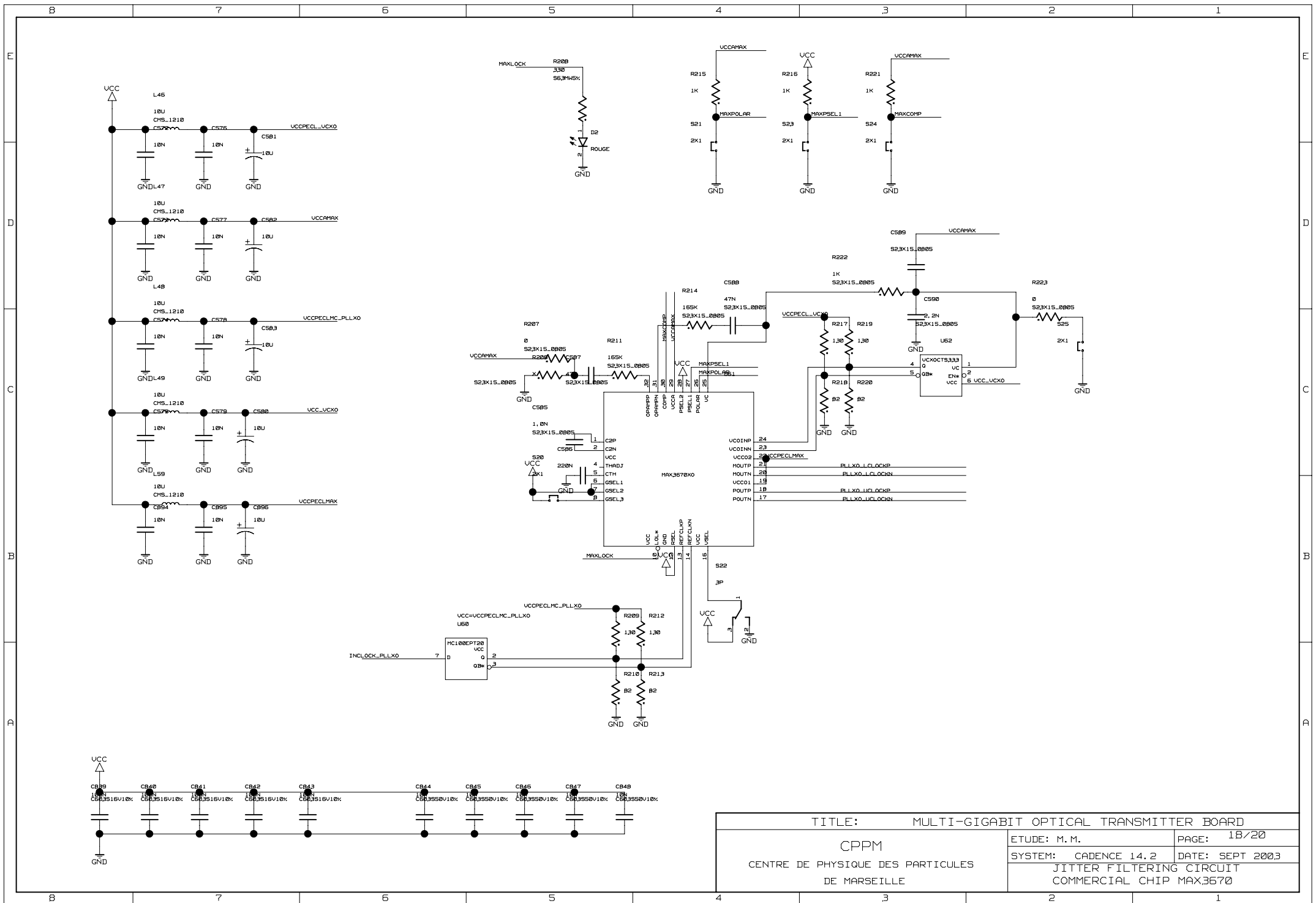
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CPPM	ETUDE: M. M.	PAGE: 15/20
CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE	SYSTEM: CADENCE 14.2	DATE: SEPT 2003
TTCRX MEZZANINE BOARD		

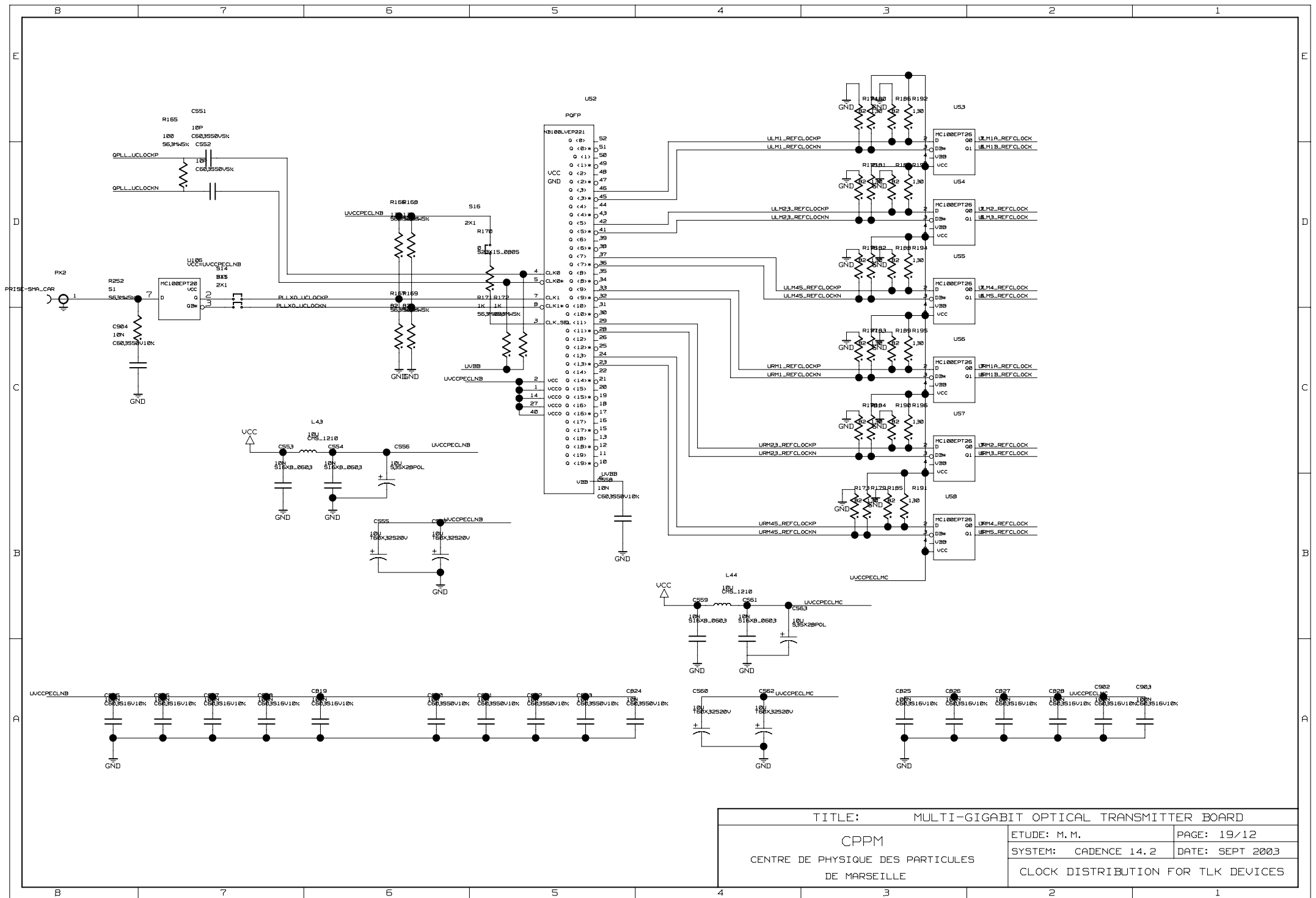


TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE	ETUDE: M. M.	PAGE: 16/20
	SYSTEM: CADENCE 14.2	DATE: SEPT 2003
CLOCK DUPLICATION		

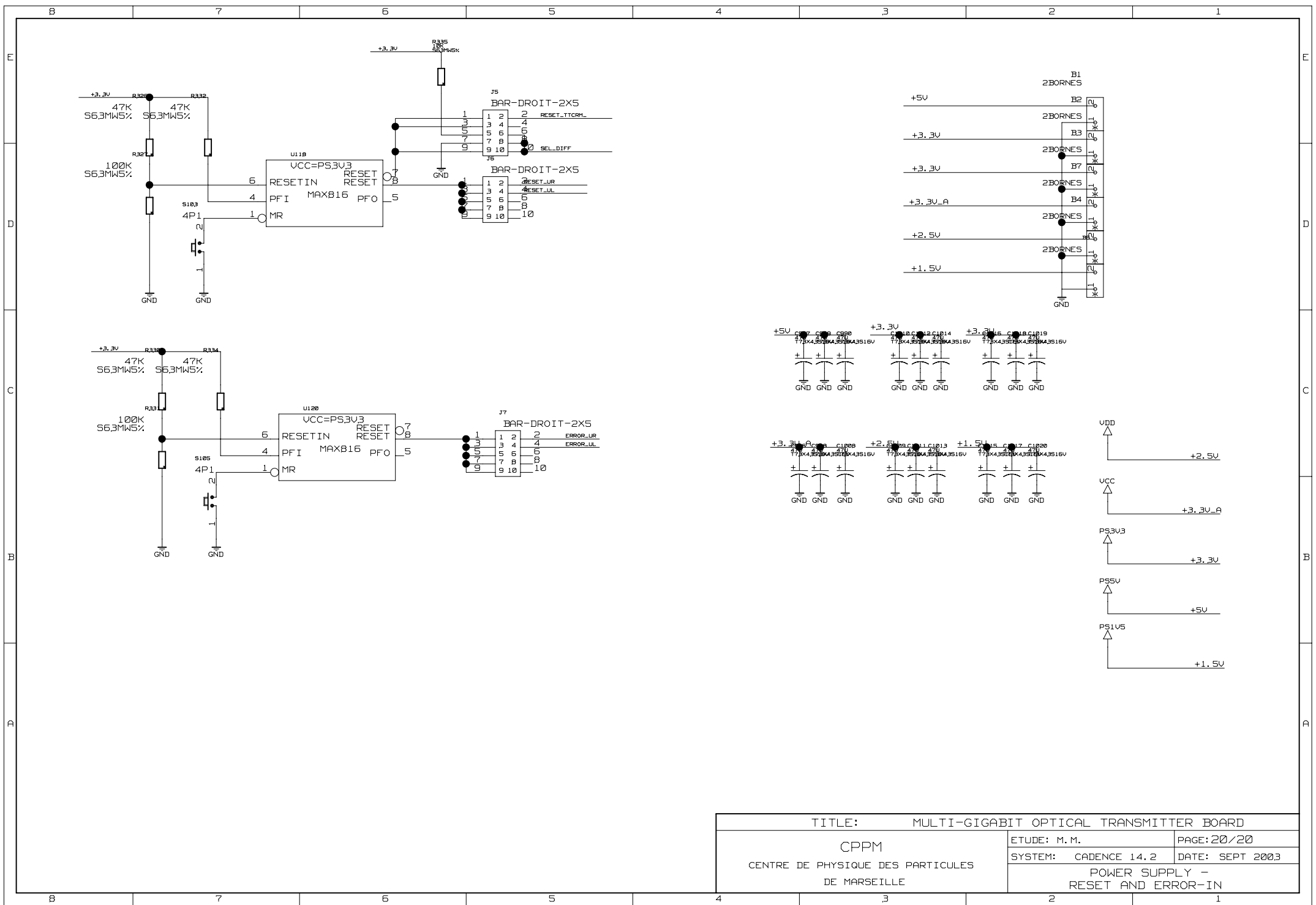


TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD	
CPPM	ETUDE: M. M. PAGE: 17/20
CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE	SYSTEM: CADENCE 14.2 DATE: SEPT 2003
	JITTER FILTERING CIRCUIT CERN CHIP : QPLL





TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM		
CENTRE DE PHYSIQUE DES PARTICULES DE MARSEILLE		
ETUDE: M. M.	PAGE: 19/12	
SYSTEM: CADENCE 14.2	DATE: SEPT 2003	
CLOCK DISTRIBUTION FOR TLK DEVICES		



TITLE: MULTI-GIGABIT OPTICAL TRANSMITTER BOARD		
CPPM		ETUDE: M. M.
CENTRE DE PHYSIQUE DES PARTICULES		PAGE: 20/20
DE MARSEILLE		SYSTEM: CADENCE 14.2
		DATE: SEPT 2003
POWER SUPPLY - RESET AND ERROR-IN		