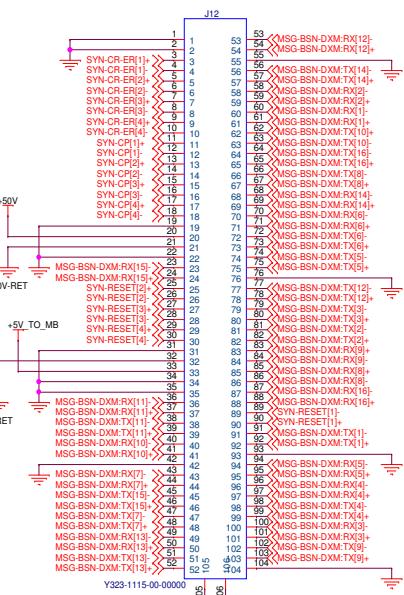
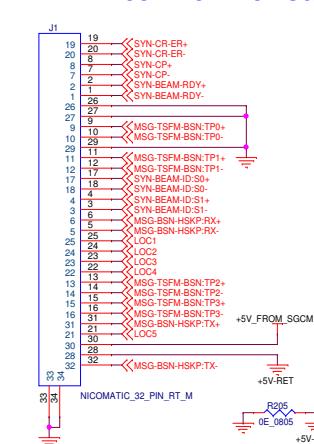


CONNECTORS

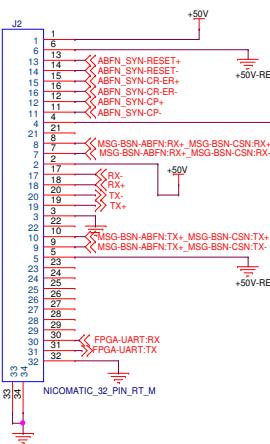
DATA & CONTROL TO MB



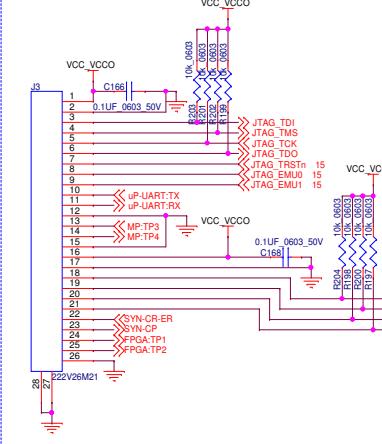
DATA AND CONTROL FROM SGCM



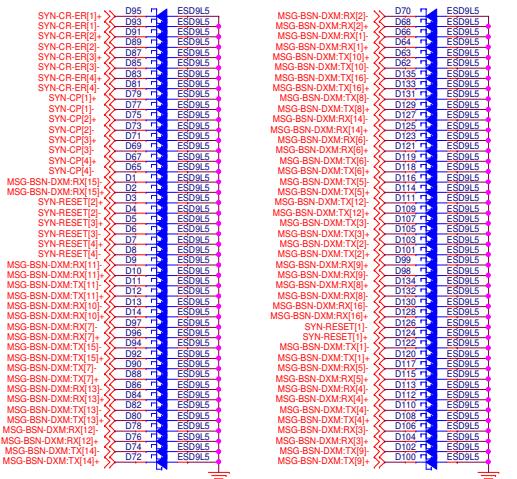
DATA AND CONTROL TO ABFN/CSN



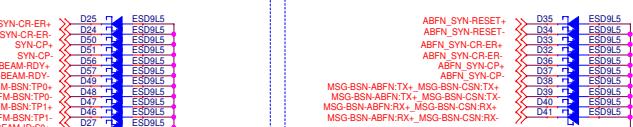
JTAG & DEBUG CONNECTOR



ESD DIODES



ESD DIODES

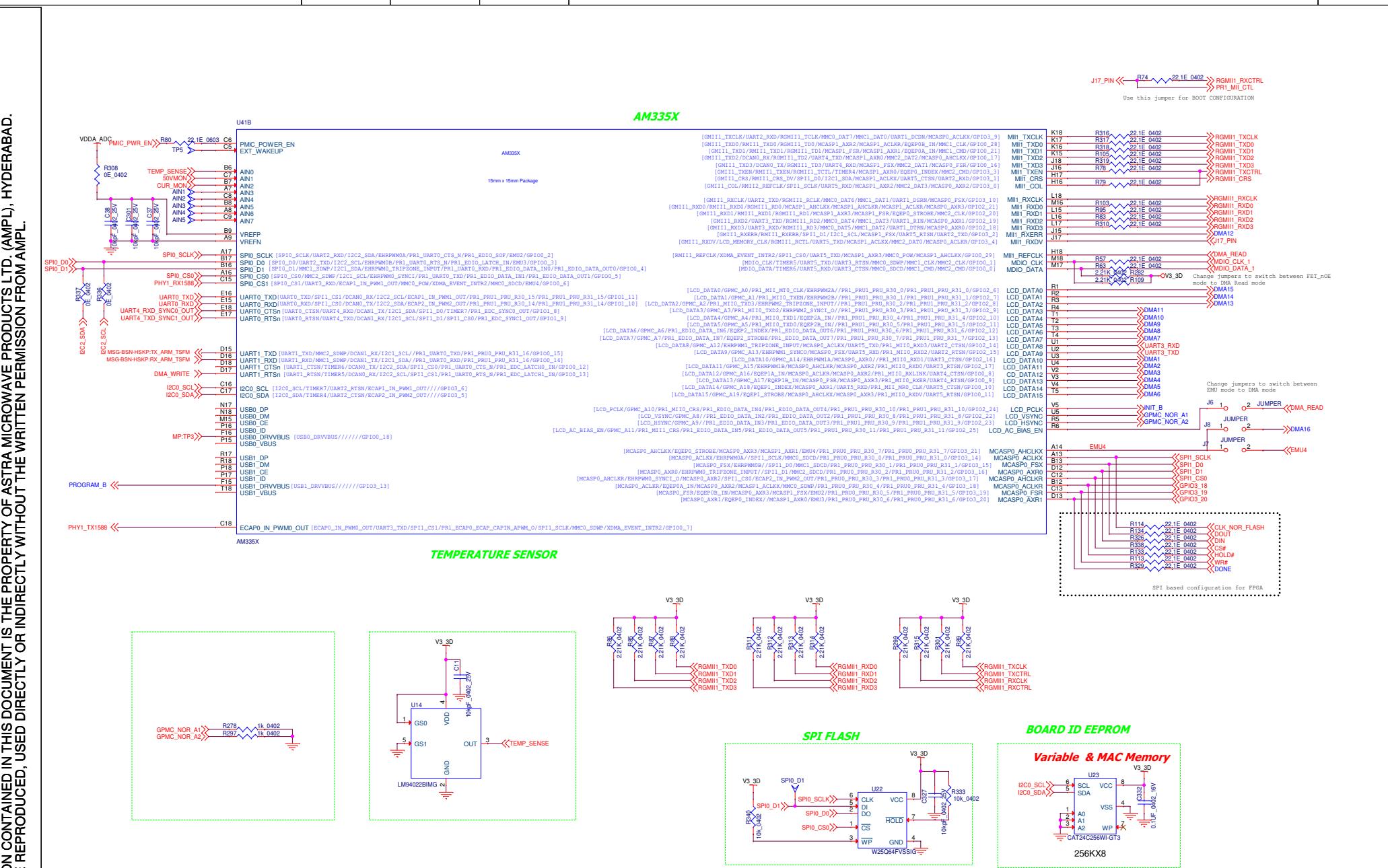


ESD DIODES



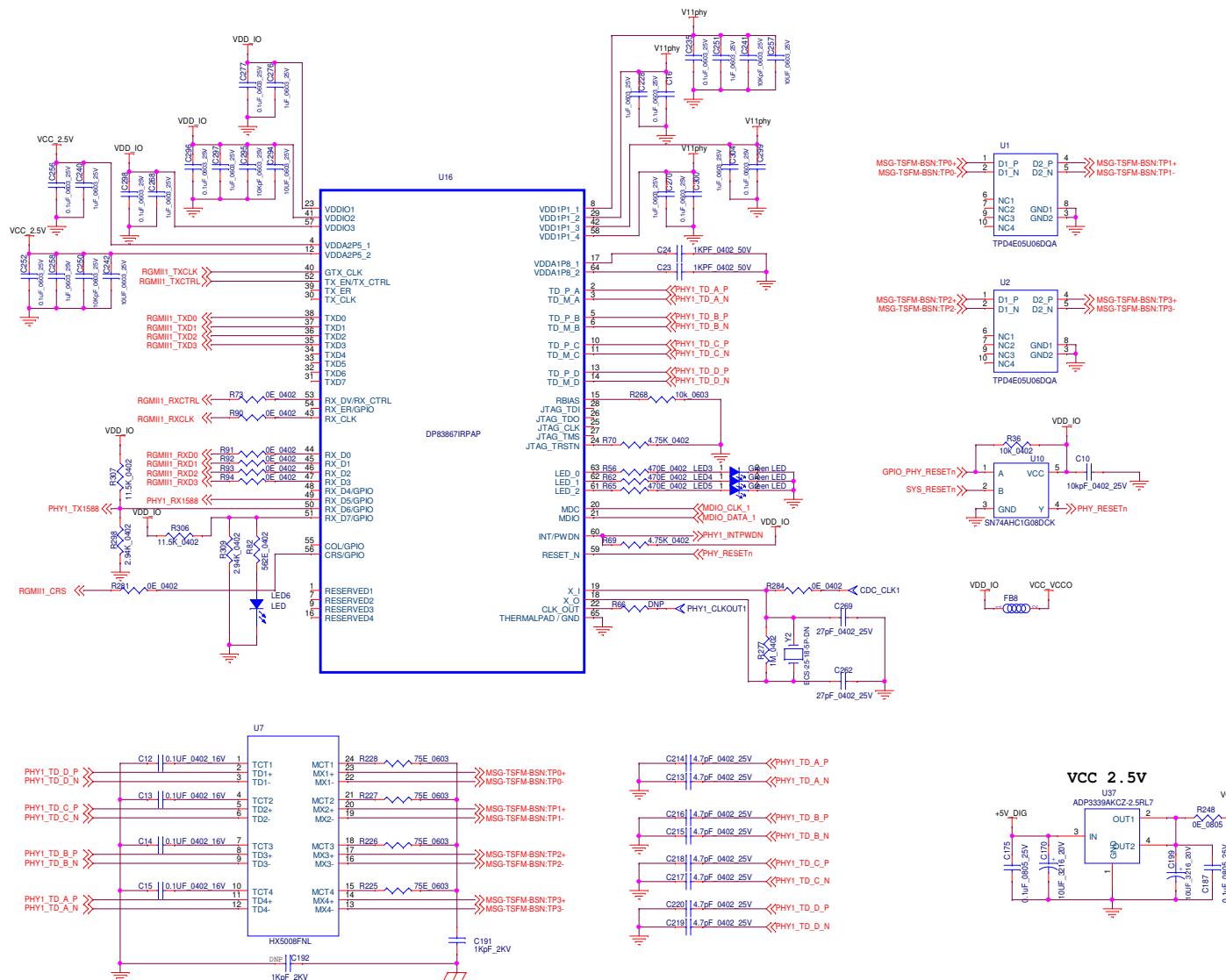
RD REV:	0A
DRN:	N. SAMBASIVA RAO
CHD:	M. SANTHOSH
APPD:	C. PRADEEP
SIZE :	C
DRG.NO:	GCM20SBR-01-SD
SHEET.NO:	23 OF 25

	REV.	C.N.No.	ZONE	BRIEF CHANGE RECORD	APPD.
				DRG.NO: GCM20SBR-01-SD	



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HYDERABAD, INDIA.

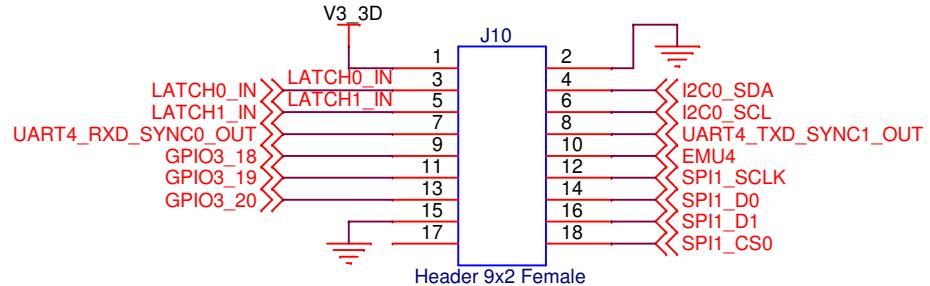
RD REV:	0A
DRN:	N. SAMBASIVA RAO
CHD:	M. SANTHOSH
APPD:	C. PRADEEP
TITLE:	SCHEMATIC DIAGRAM FOR GCM PCB
SIZE :	C
DRG.NO:	GCM20SBR-01-SD
SHEET.NO:	16 OF 25
REV.	0A



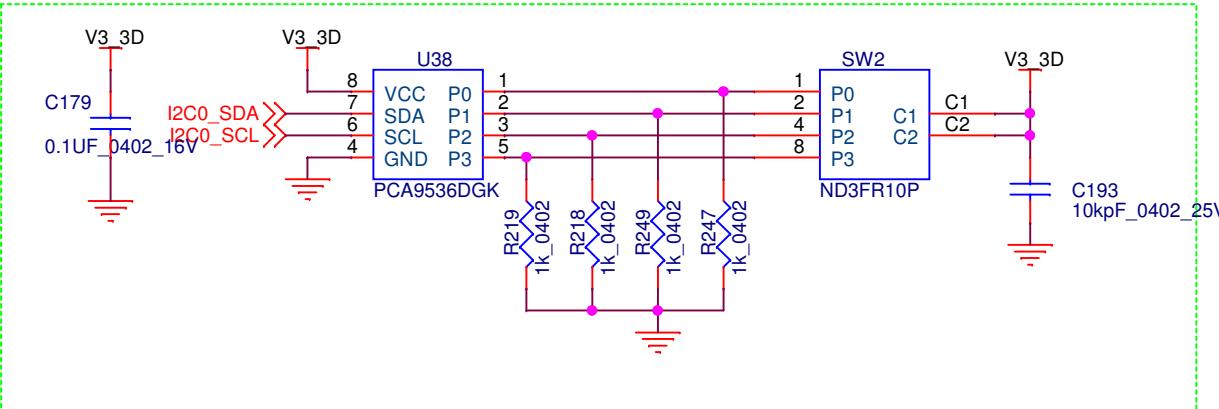
ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV:
DRN:	N. SAMBASIVA RAO					0A
CHD:	M. SANTHOSH					REV.
APPD:	C. PRADEEP					0A

HOST EXPANSION HEADERS(option on the board)



ROTARY SWITCH - INDUSTRIAL ETHERNET SLAVE ADDRESS SELECTOR

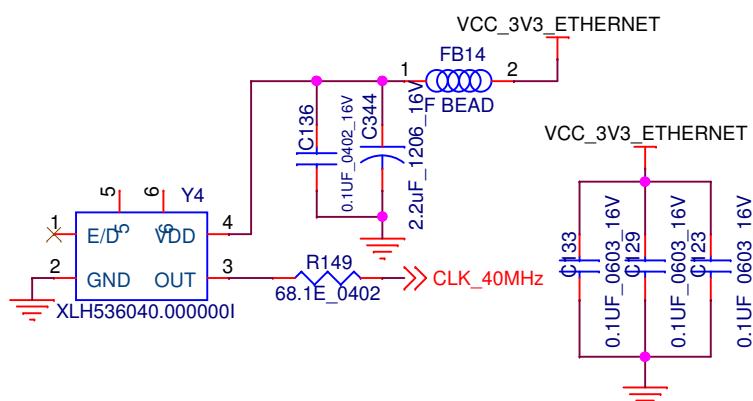


ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

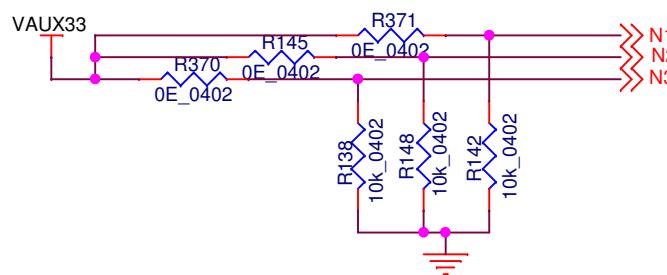
	ASTRA MICROWAVE PRODUCTS LTD. HYDERABAD, INDIA.		NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV.
		DRN:	N.SAMBASIVA					0A
		CHD:	M.SANTHOSH					REV.
		APPD:	C.PRADEEP			SIZE : A4	SHEET.NO: 14 OF 25	0A

REV.	C.N.No.	ZONE	BRIEF CHANGE RECORD	APPD.
			DRG.NO: GCM20SBR-01-SD	

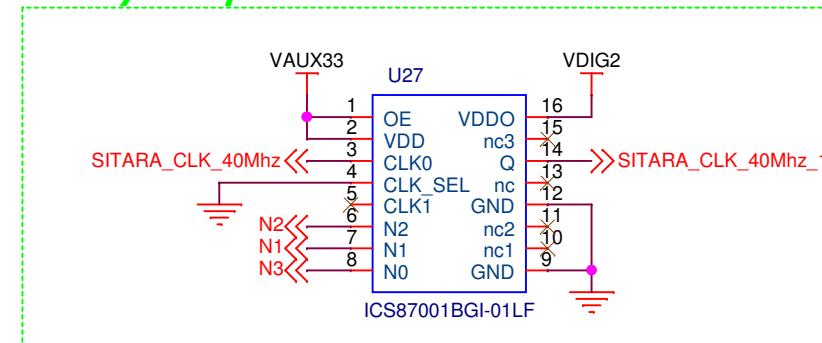
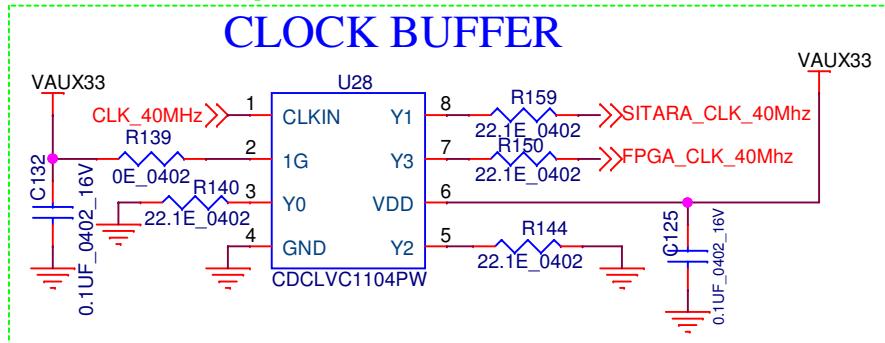
100Mhz clock generator for FPGA and AM3359 Processor



REFCLK_SEL	Frequency	Comment
000	125MHz	Default operation mode, 125MHz
001	156.25MHz	Normal operation 156.25MHz ref clock
010	-	Reserved
011	-	Reserved
100	25MHz	Normal operation mode 25MHz ref clock
101	-	Reserved
110	-	Reserved
111	-	Reserved

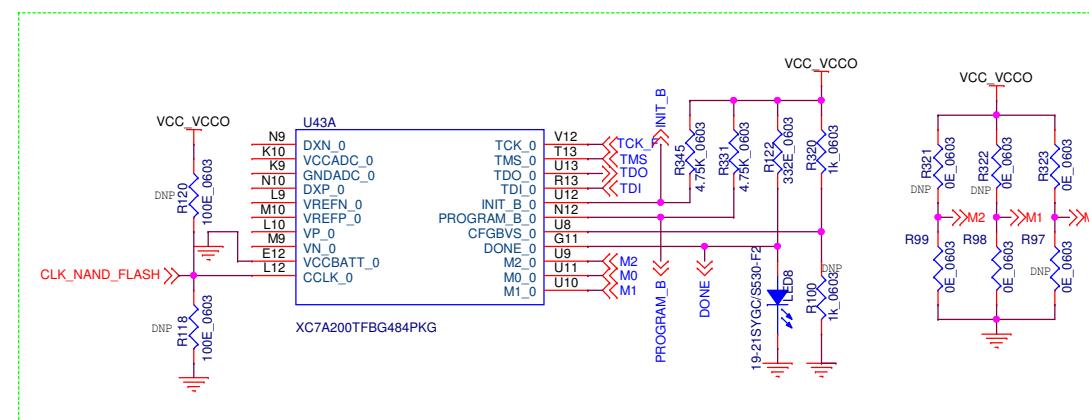
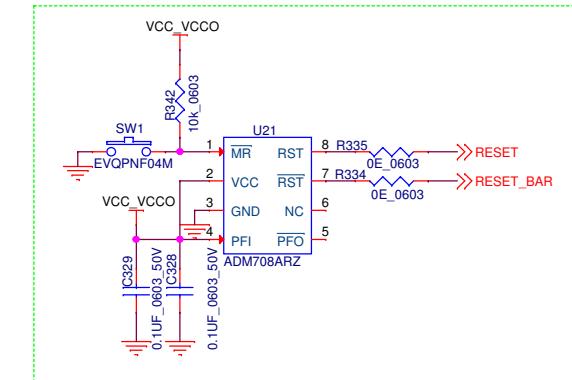
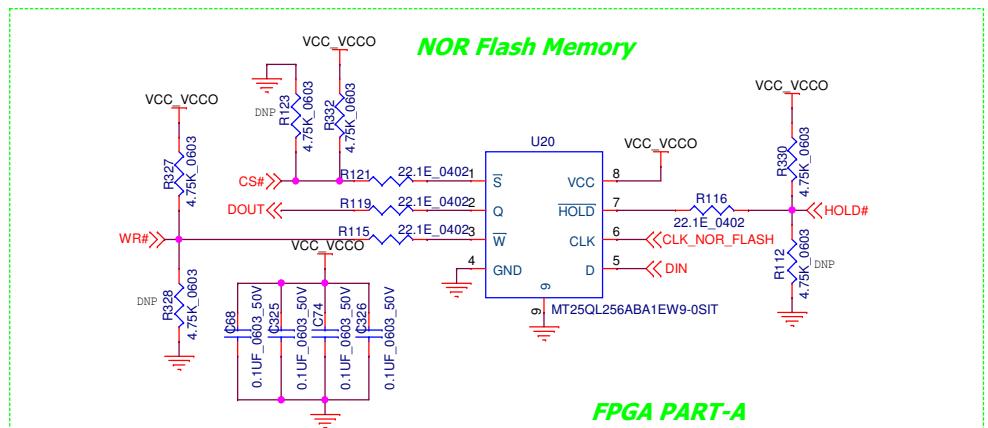


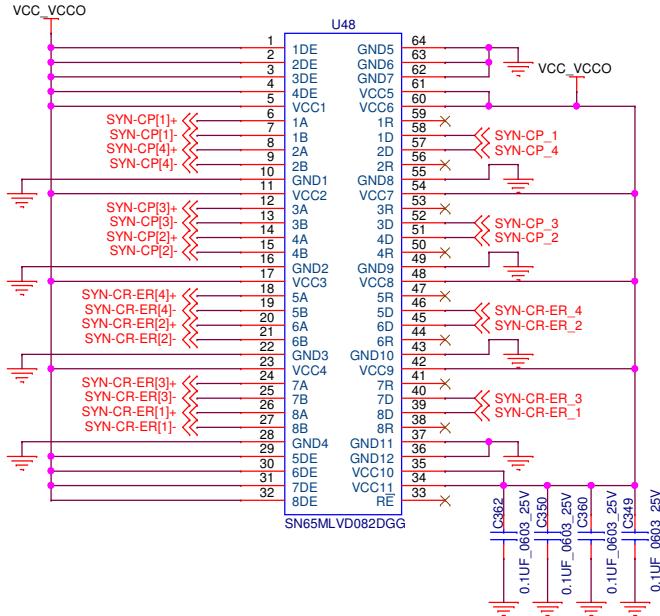
CLOCK Buffer which splits the clock to FPGA and AM3359 clock Divide by 4 to produce 25Mhz clock for AM3359



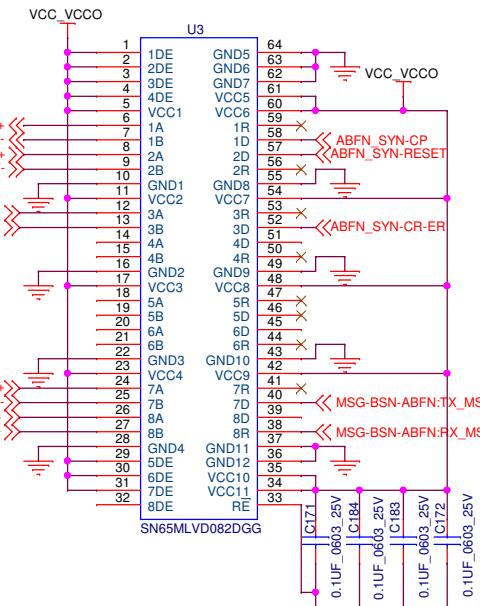
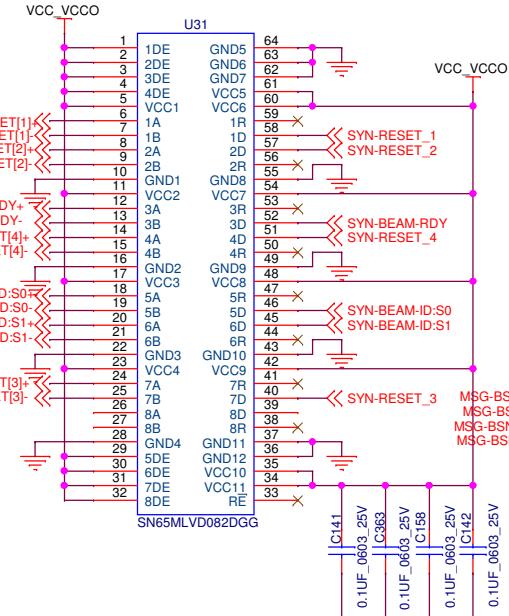
ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

NAME	SIGN	DATE	TITLE:	DRG.NO:	RD REV.
DRN: N.SAMBASIVA			SCHEMATIC DIAGRAM FOR GCM PCB	GCM20SBR-01-SD	0A
CHD: M.SANTHOSH					REV.
APPD: C.PRADEEP			SIZE : A4	SHEET.NO: 2 OF 25	0A





TRANSMITTERS



ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB		RD REV:
DRN:	N. SAMBASIVA RAO				0A
CHD:	M. SANTHOSH				REV.
APPD:	C. PRADEEP		SIZE : A3		0A

XC7A200TFBG484PKG

GPMC INTERFACE

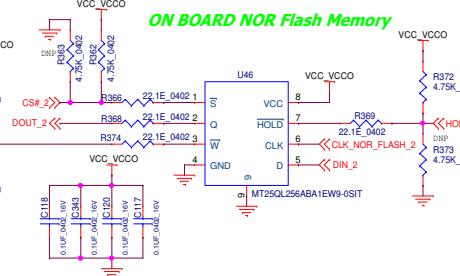
XC7A200TFBG484PKG

XC7A200TFBG484PKG

XC7A200TFBG484PKG

XC7A200TFBG484PKG

ON BOARD NOR Flash Memory



SCHEMATIC BLOCKS AND PAGE REFERENCES

RS232 DEBUG FOR FPGA
P03_RS232

FPGA CONFIGURATION
P02_CONFIG_SPI_RST_BANK1

CLOCK CIRCUITS
P01_CLOCK_CIRCUITS

MICRO SD CARD SOCKET
P14_MICRO SD CARD SOCKET

FPGA
P04_FPGA_BANKS_HR
P05_FPGA_BANKS_HP
P06_FPGA_MISC BANKS
P08_FPGA BYPASS CAPACITORS

AM3359 SITARA PROCESSOR
P10_AM335x Sheet 1
P11_AM335x Sheet 2
P12_AM335x Page 3
P13_AM335x Page 4

USB TO UART/JTAG
P17_USB_TO_UART/ JTAG

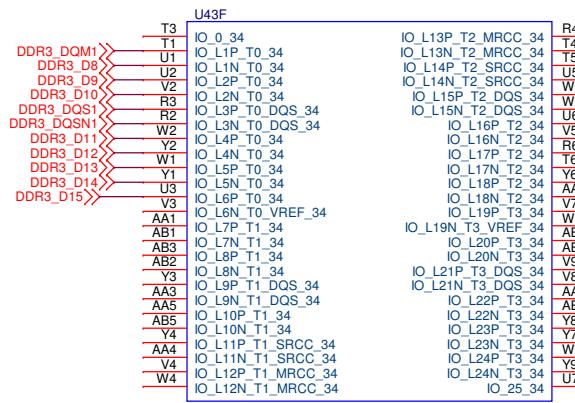
DDR3 MEMORY
P15_DDR3_Memory

NAND FLASH
P16_NAND_FLASH

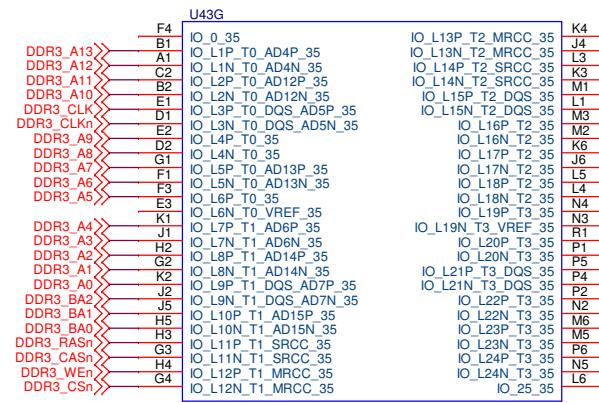


ASTRA MICROWAVE PRODUCTS LTD.
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RD REV:	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB			
REV.				
0A	DRG.NO:	GCM20SBR-01-SD		
0A	CHD:	M. SANTHOSH		
0A	APPD:	C. PRADEEP		SHEET.NO: 1 OF 25
			SIZE: A3	



XC7A200TFBG484PKG



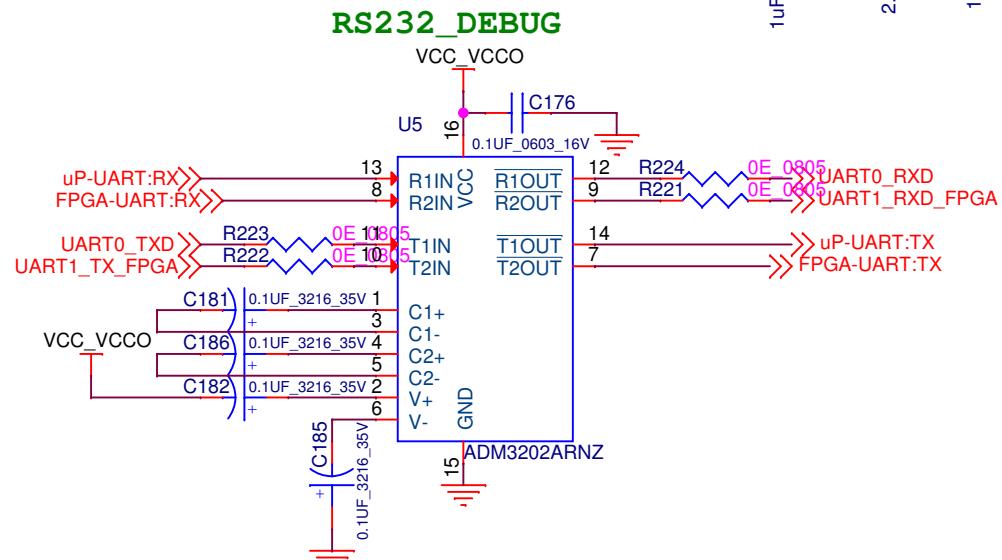
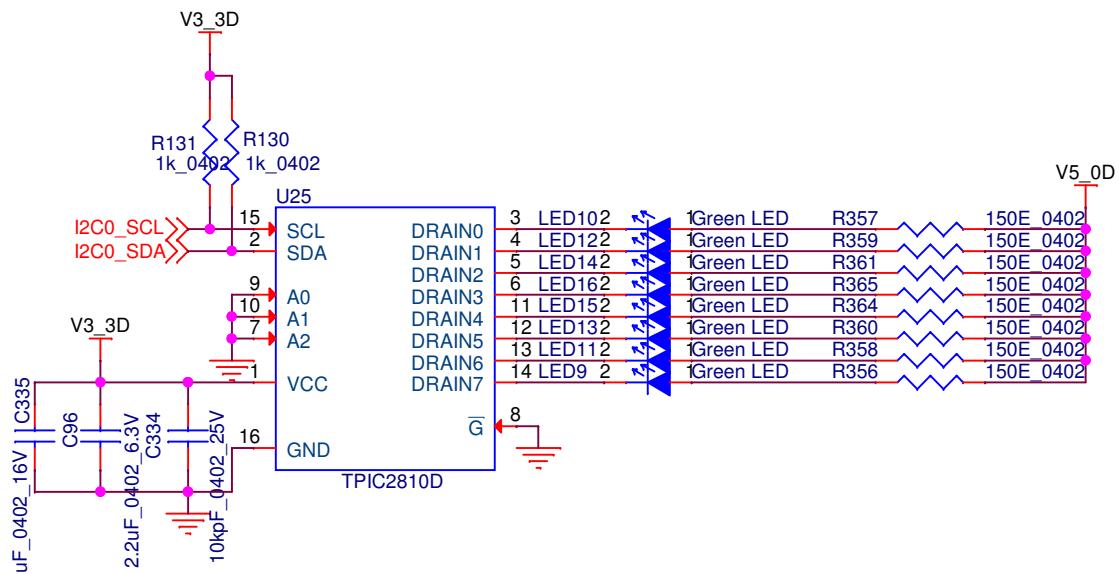
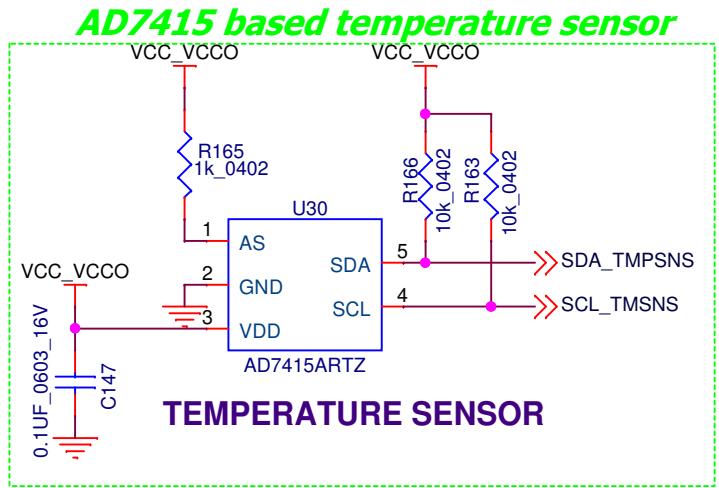
XC7A200TFBG484PKG



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RD REV:	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB				DRG.NO:	GCM20SBR-01-SD		RD REV:
REV.					SHEET.NO:	6 OF 25		REV.
REV.	SIZE : A3				SHEET.NO:	1		REV.
0A	DRN:	N. SAMBASIVA RAO						0A
0A	CHD:	M. SANTHOSH						REV.
0A	APPD:	C. PRADEEP						0A

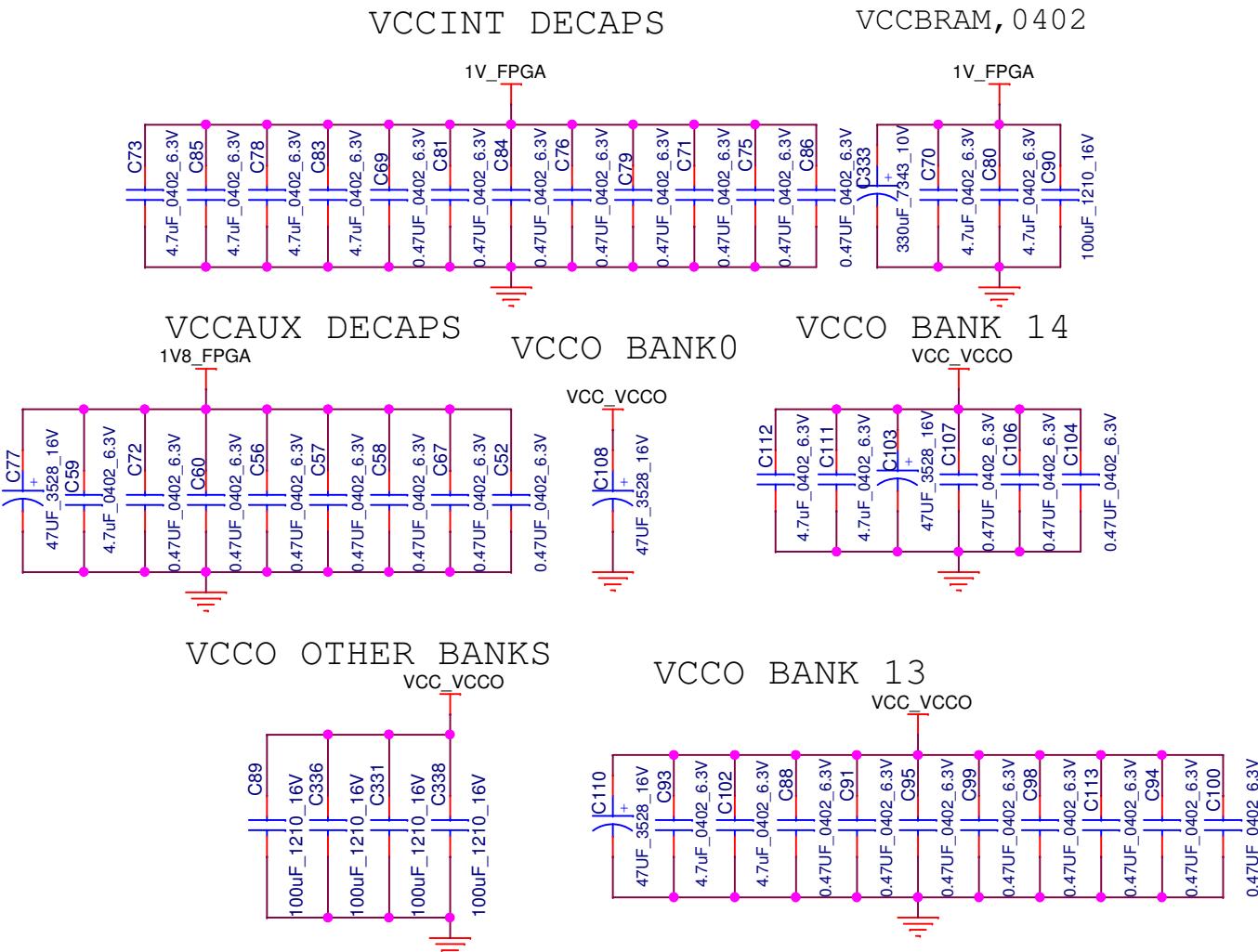
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HYDERABAD, INDIA.

	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV. 0A
DRN:	N.SAMBASIVA					
CHD:	M.SANTHOSH					
APPD:	C.PRADEEP			SIZE : A4	SHEET.NO: 13 OF 25	REV. 0A

DRG.NO:	REV.	C.N.No.	ZONE	BRIEF CHANGE RECORD	APPD.
	GCM20SB-R-01-SD				



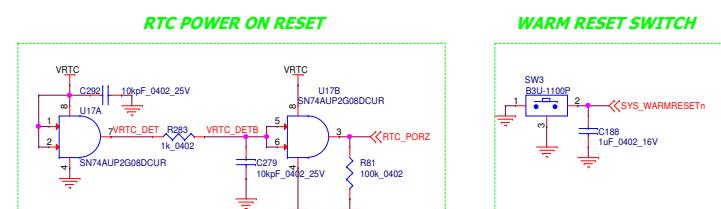
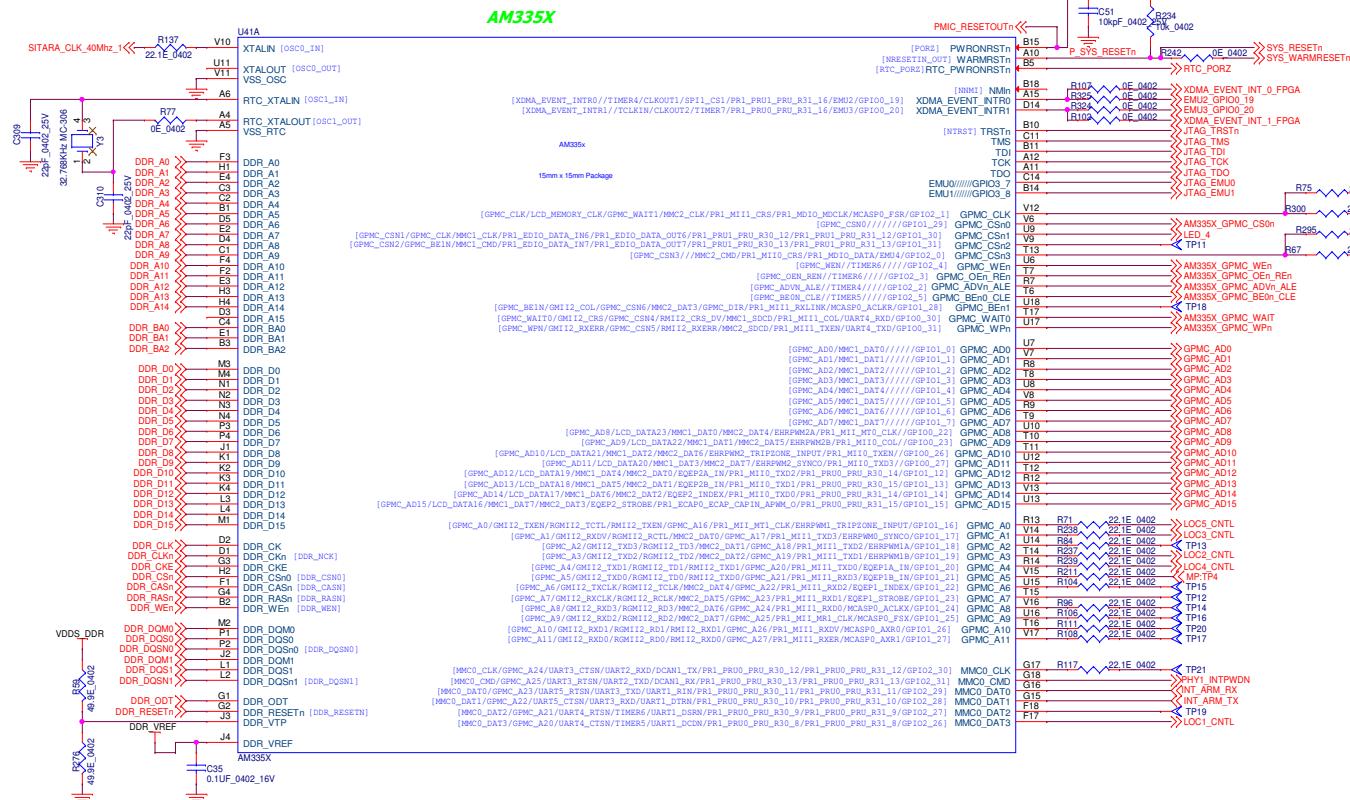
GONO



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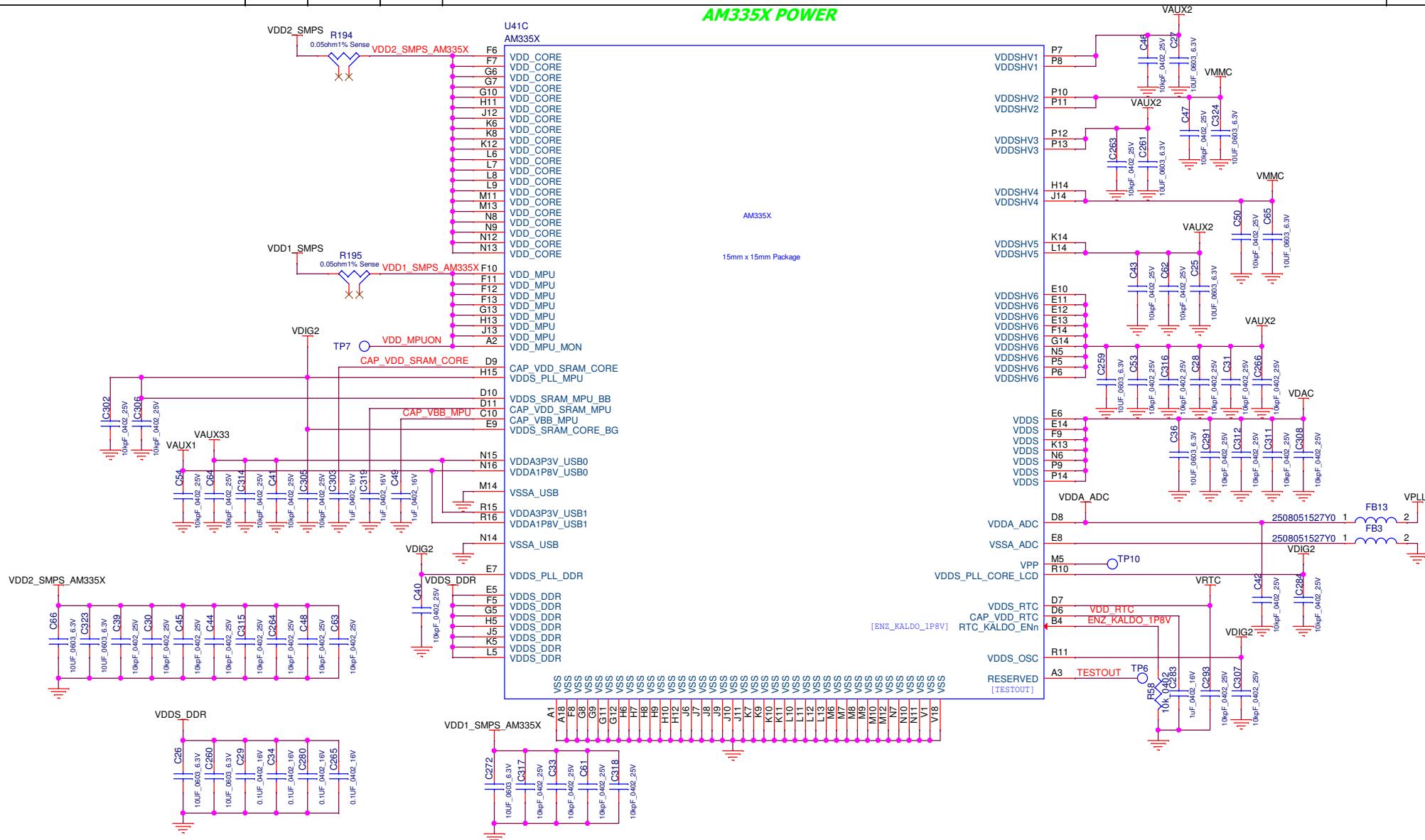
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DRN:	N.SAMBASIVA					0A
CHD:	M.SANTHOSH					REV.
APPD:	C.PRADEEP			SIZE : A4	SHEET.NO: 7 OF 25	0A

Populate these Jumpers if EMU has to be enabled and remove the jumpers provided for DMA op



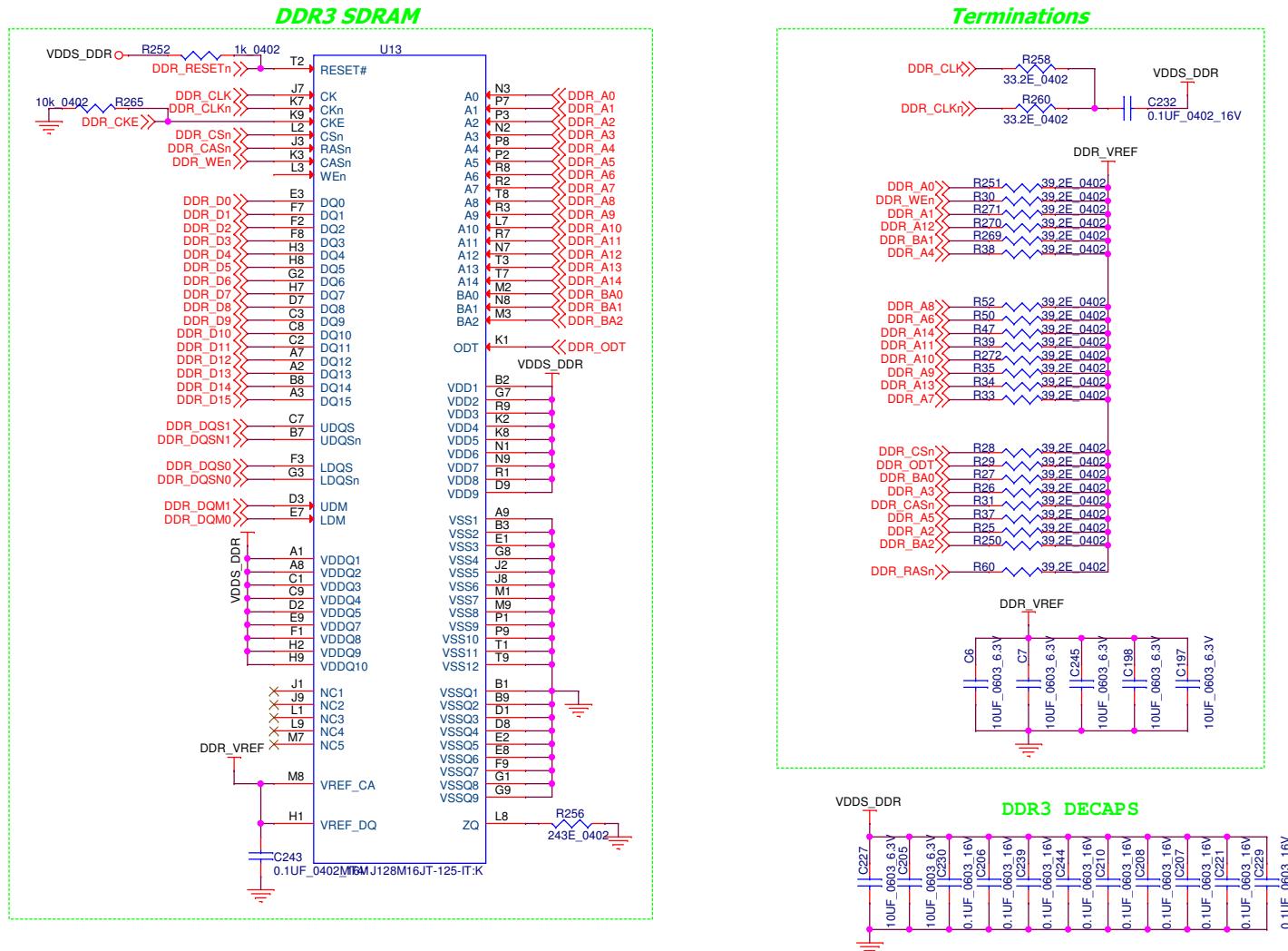
ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA

	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV:
DRN:	N. SAMBASIVA RAO					0A
CHD:	M. SANTHOSH			SIZE : C	SHEET.NO: 11 OF 25	REV.
APPD:	C. PRADEEP					0A



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DRN:	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GM20SBR MAIN BOARD	DRG.NO:	RD REV:
CHD:	M. SANTHOSH				45CM20SBR-01-SD	0A-1
APPD:	C. PRADEEP					REV.
5	4	3	2		SHEET.NO: 12 OF 25	1

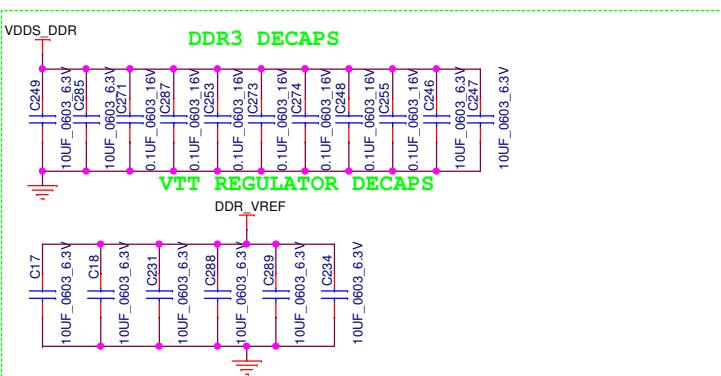
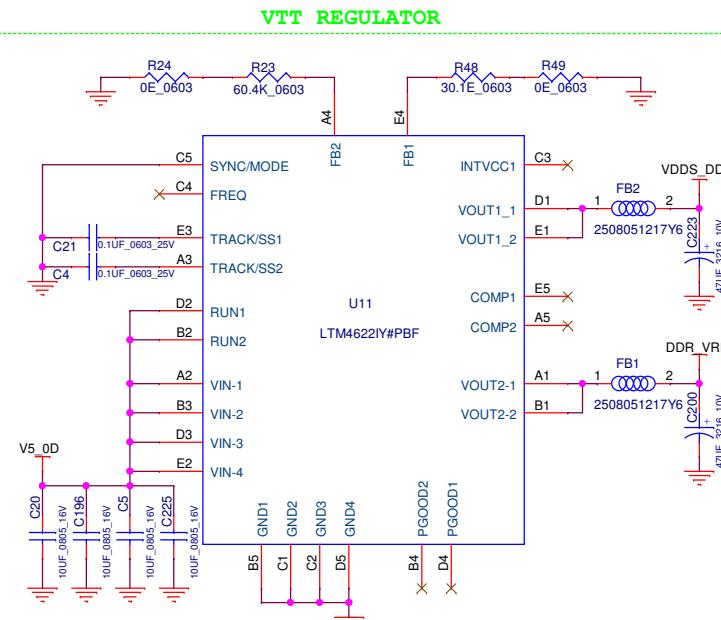
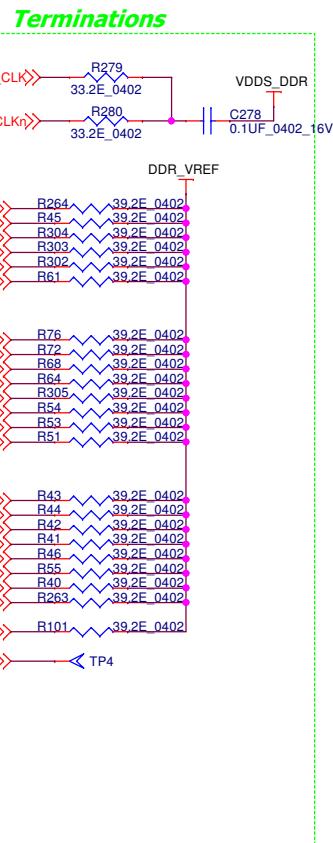
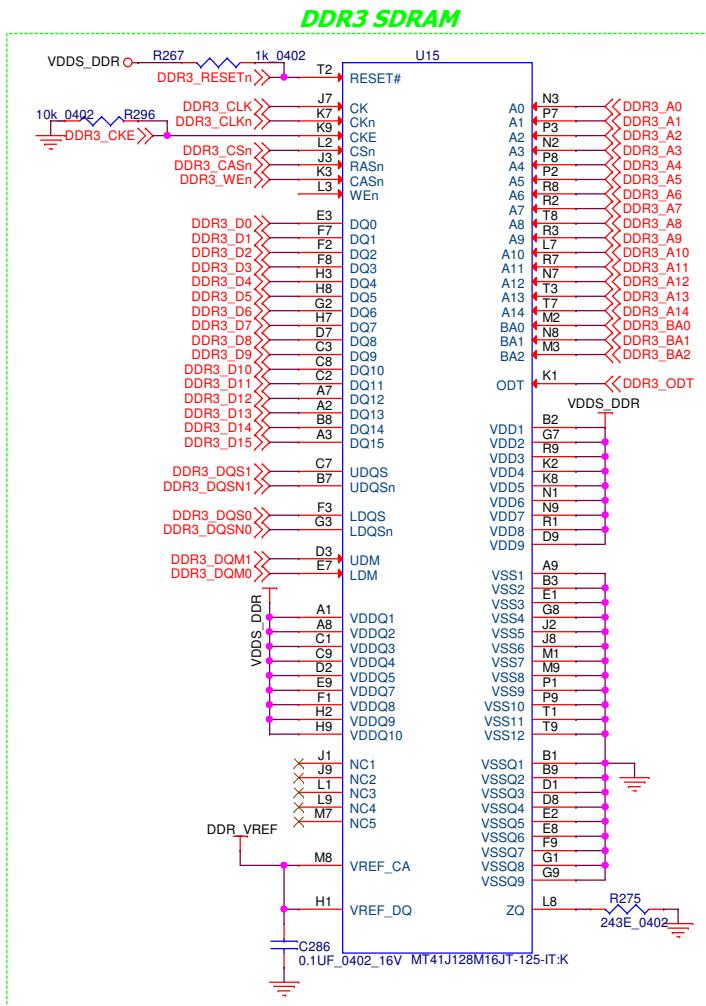


ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

TITLE:
SCHEMATIC DIAGRAM FOR
GCM PCB

SIZE : A3

SHEET.NO: 15 OF 25



ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

5 4 3 2 1

NAME SIGN DATE

DRN: N. SAMBASIVA RAO

CHD: M. SANTHOSH

APPD: C. PRADEEP

DATE

DATE

DATE

TITLE:
SCHEMATIC DIAGRAM FOR
GCM PCB

SIZE: A3

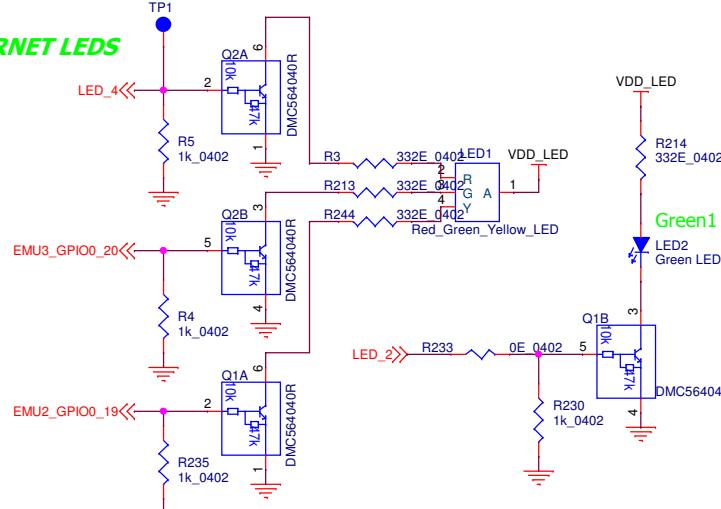
RD REV:
0A

DRG.NO: GCM20SBR-01-SD

SHEET.NO: 24 OF 25

REV.
0A

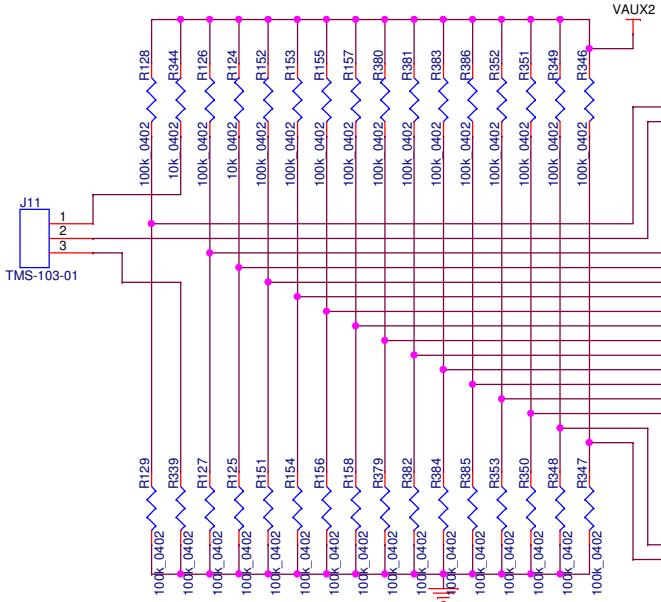
ETHERNET LEDs



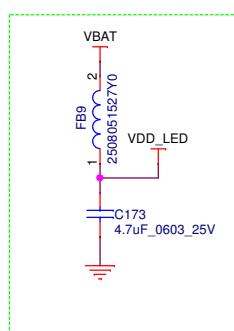
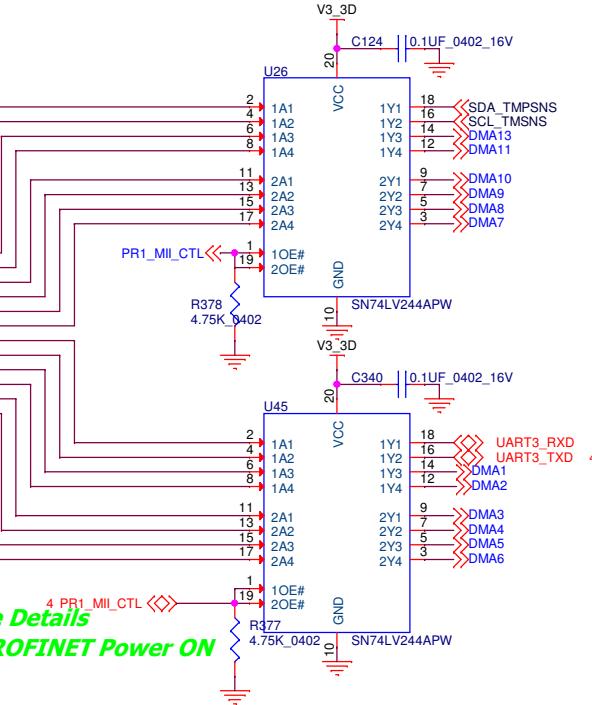
Check Hardware User's Guide for Boot Sequence Details

PROFINET Power ON

BOOT CONFIGURATION



SYS BOOT BUFFERS



ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

NAME

SIGN

DATE

TITLE:

SCHEMATIC DIAGRAM FOR
GCM PCB

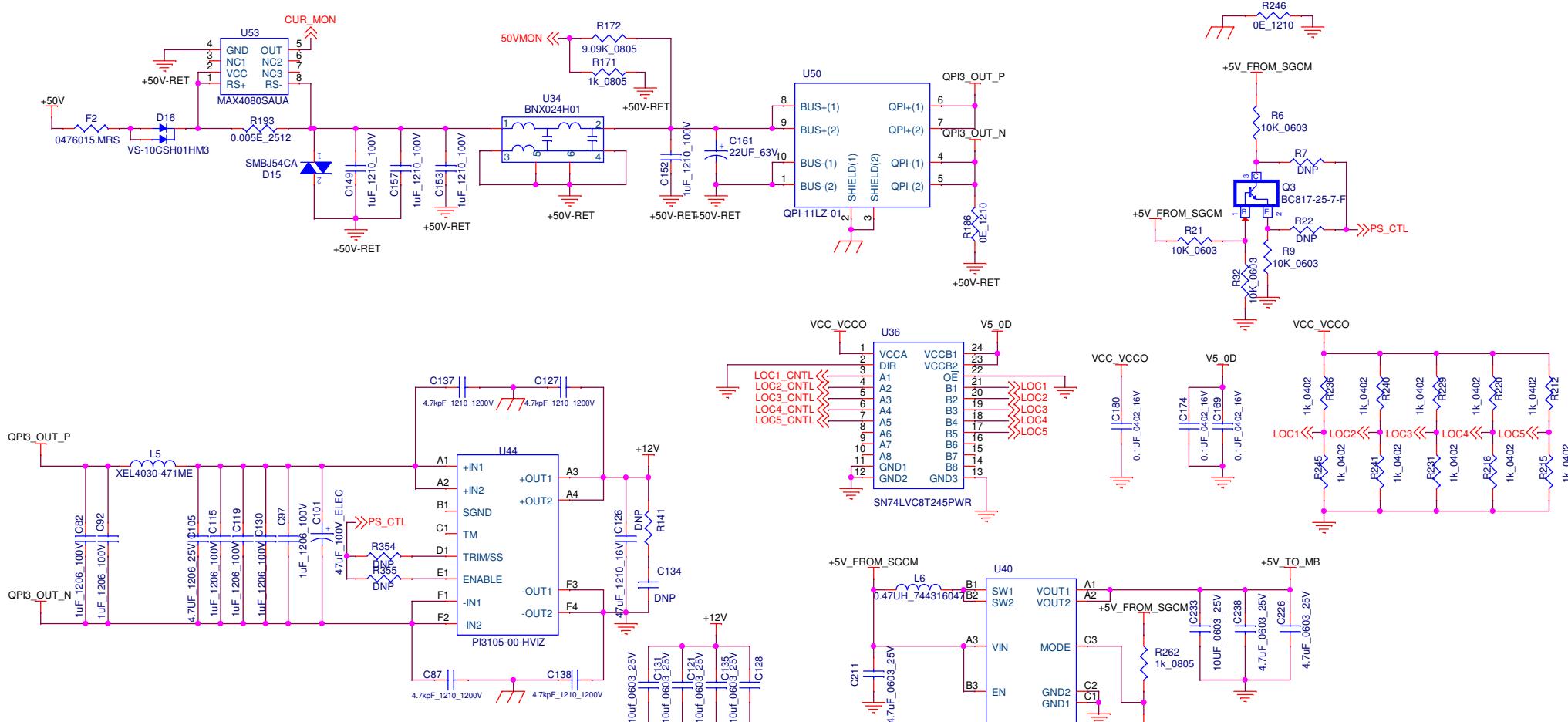
DRG.NO:
GCM20SBR-01-SD

RD REV:

0A

REV.

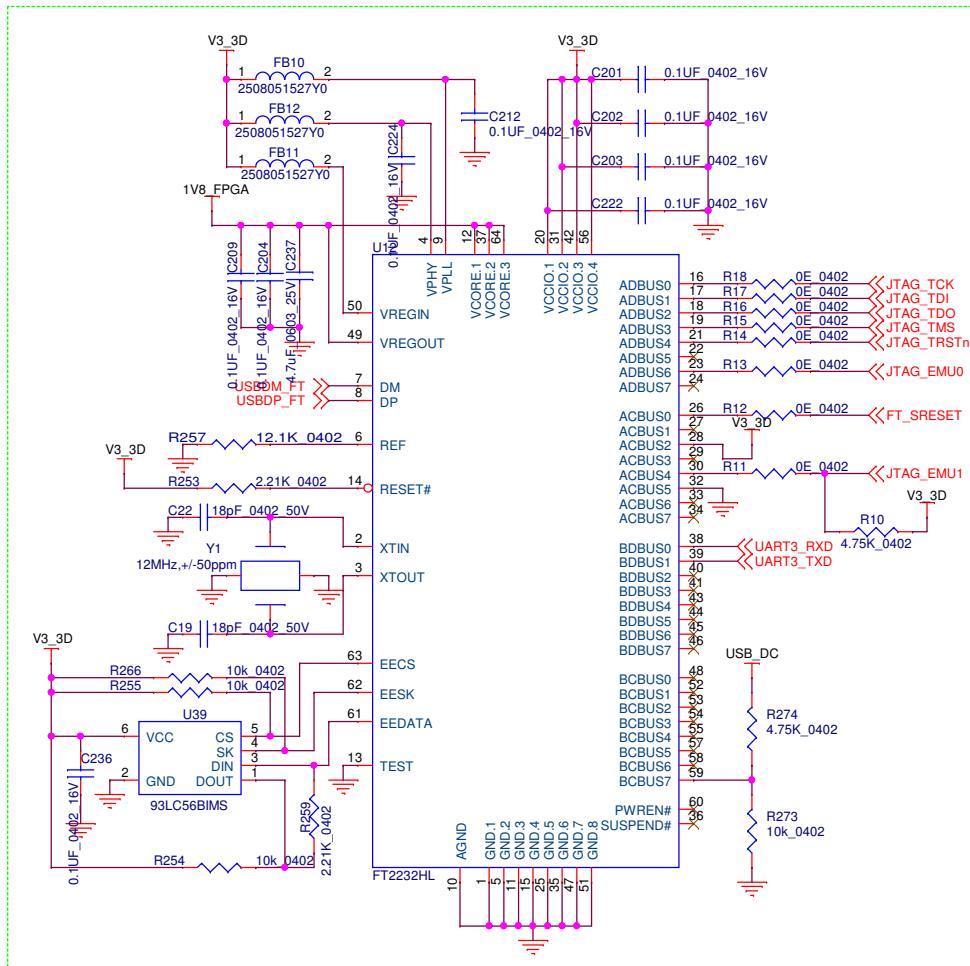
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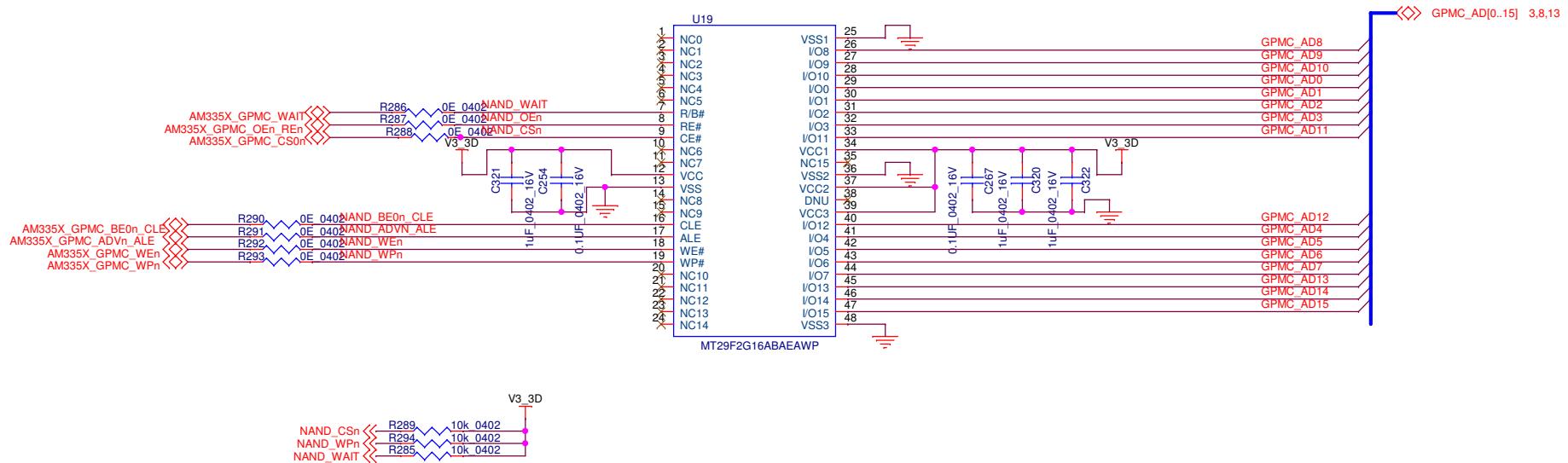
**ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.**

	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV:
DRN:	N . SAMBASIVA RAO					0A
CHD:	M . SANTHOSH					REV.
APPD:	C . PRADEEP			SIZE : A3	SHEET.NO: 20 OF 25	0A

USB TO UART / JTAG(OPTIONAL ON THE BOARD)

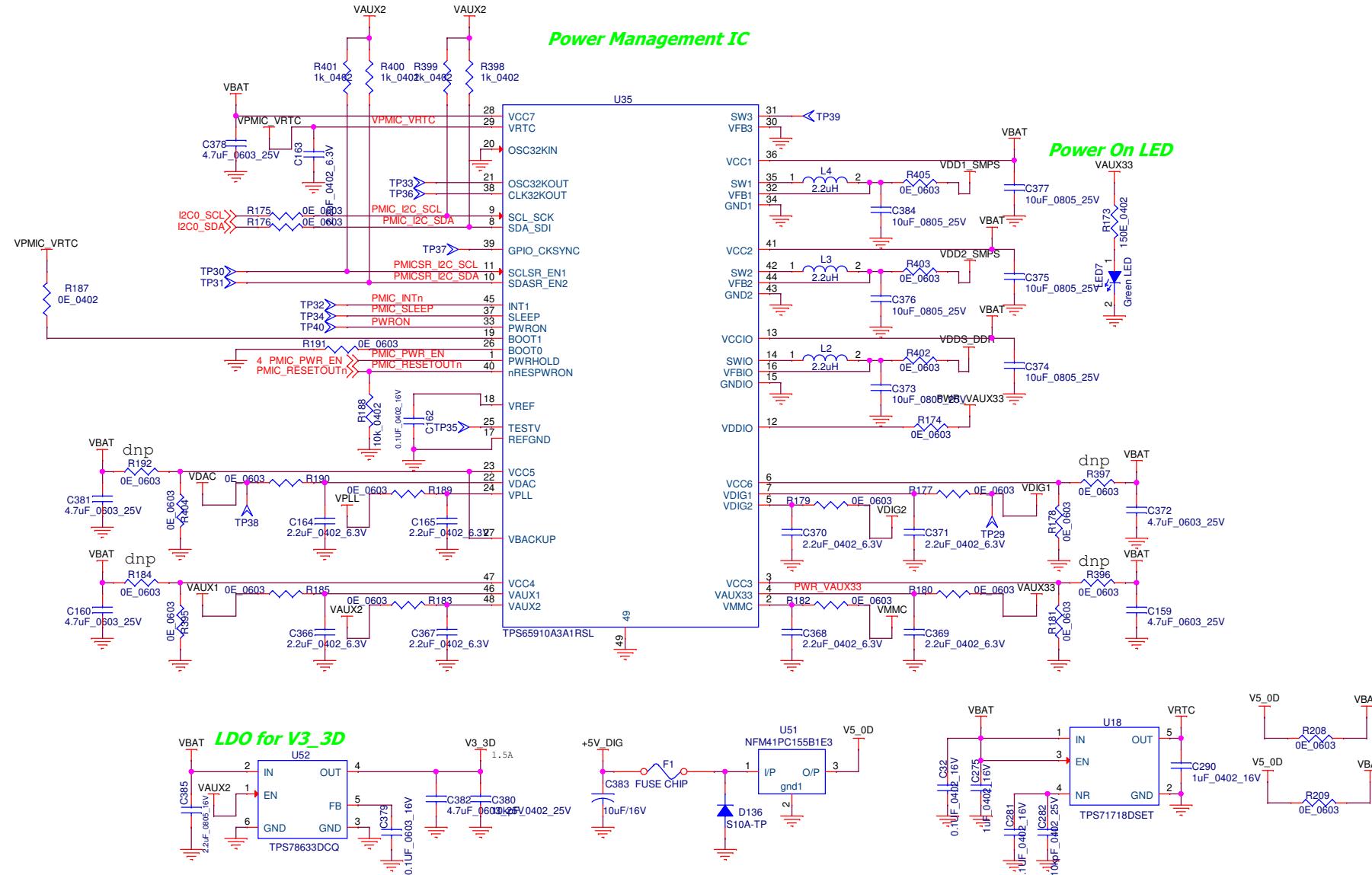


NAND FLASH MEMORY INTERFACE



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HYDERABAD, INDIA.

DRN:	NAME	SIGN	DATE	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB	DRG.NO: GCM20SBR-01-SD	RD REV: 0A
CHD:	M. SANTHOSH					
APPD:	C. PRADEEP					



ASTRA MICROWAVE PRODUCTS LTD.
HYDERABAD, INDIA.

RD REV:	TITLE: SCHEMATIC DIAGRAM FOR GCM PCB			DRG.NO:	GCM20SBR-01-SD	
0A	DRN: N. SAMBASIVA RAO			CHD:	M. SANTHOSH	
0A	APPD: C. PRADEEP			SIZE:	A3	

