PG132-A02

370W, FH Std PCB, 384b, GDDR6x 2CH X16 DP + DP + DP + HDMI/DP

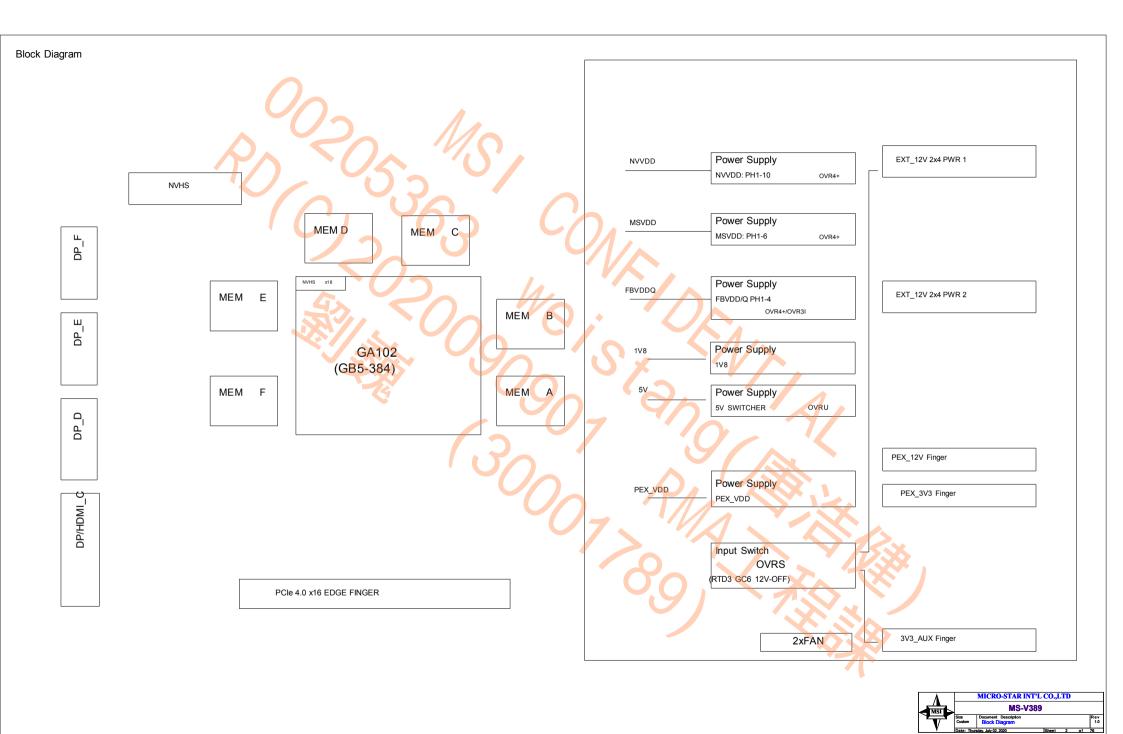
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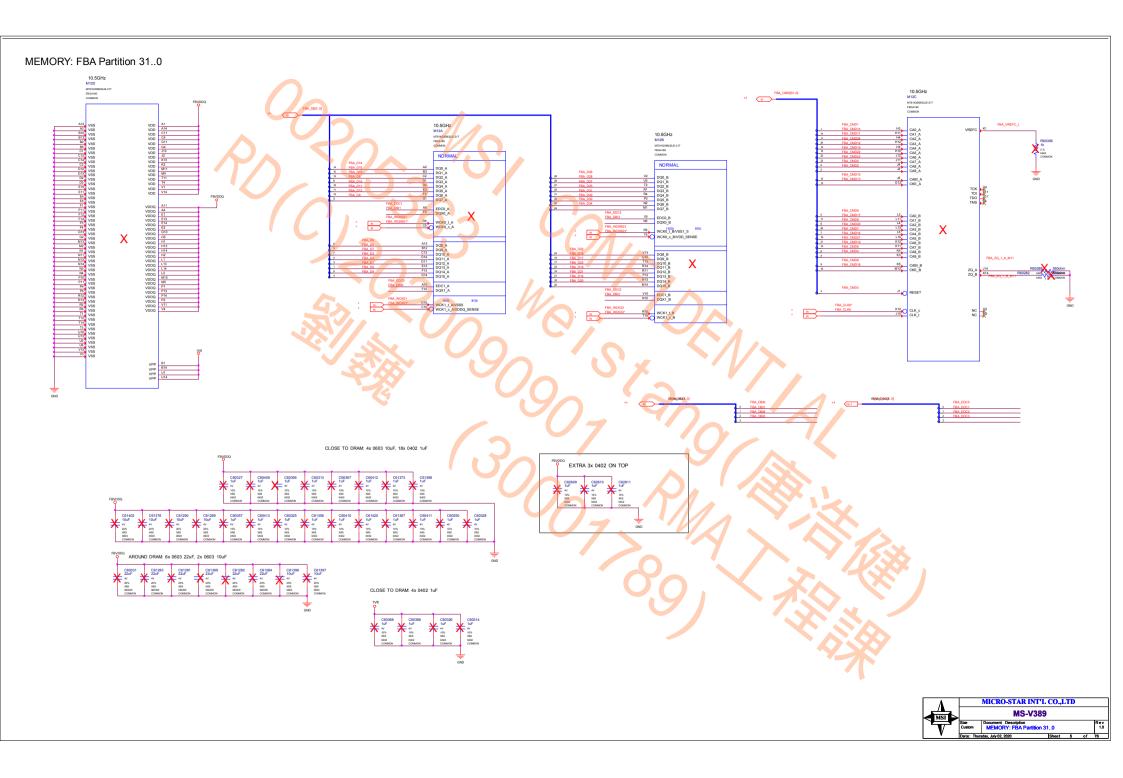


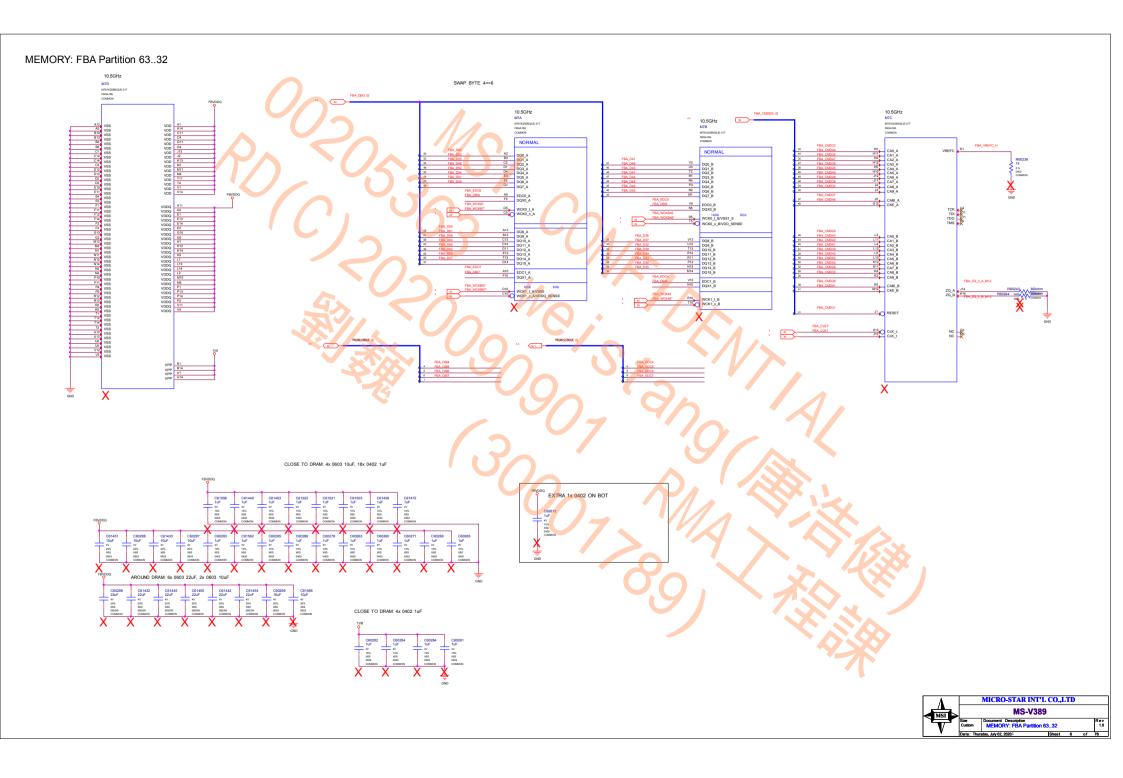


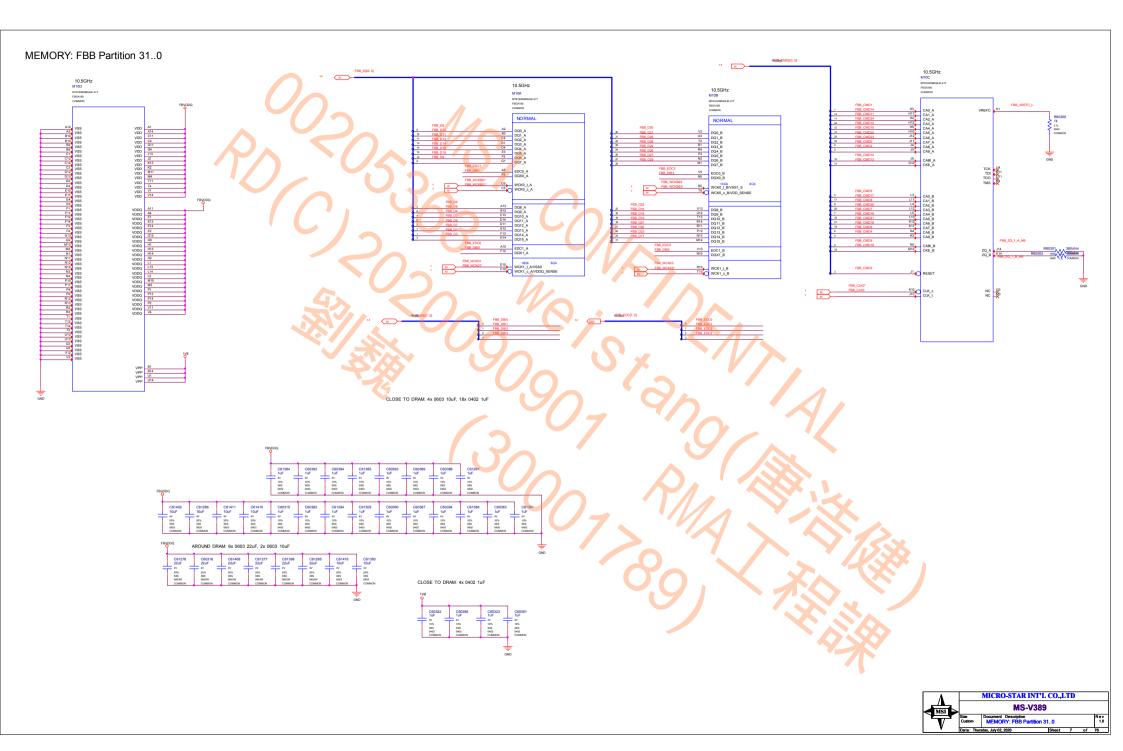
Date: Thursday, July 02, 202

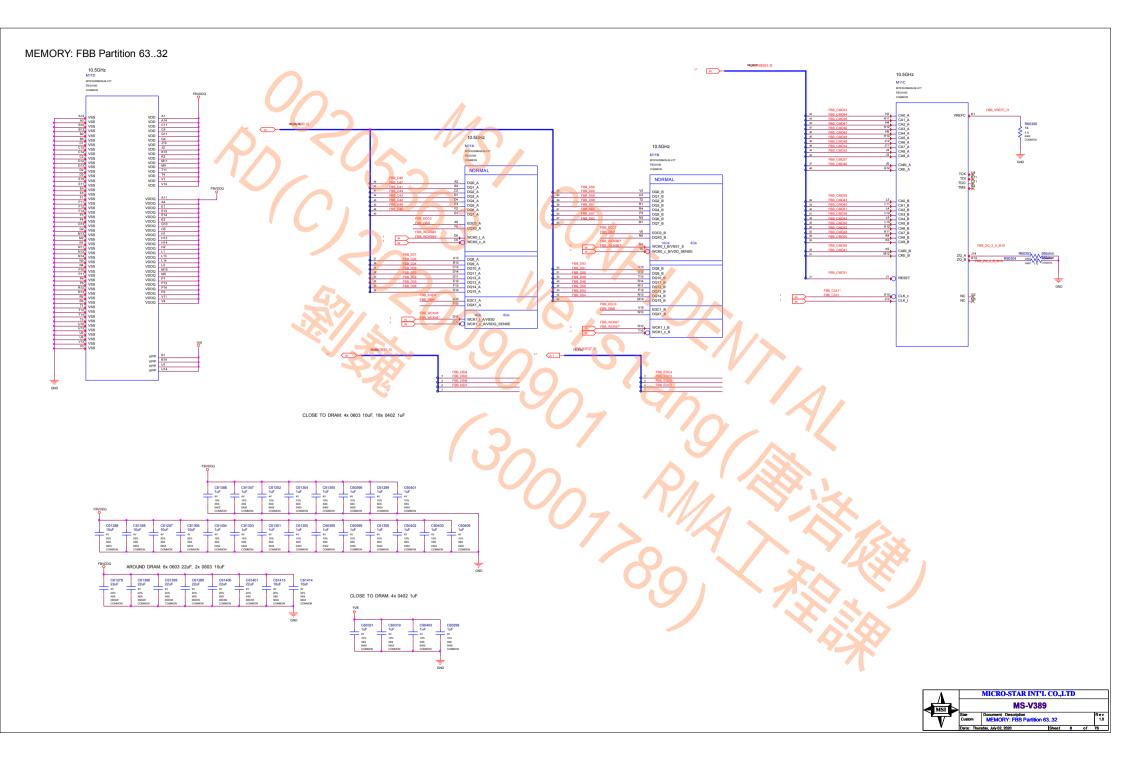
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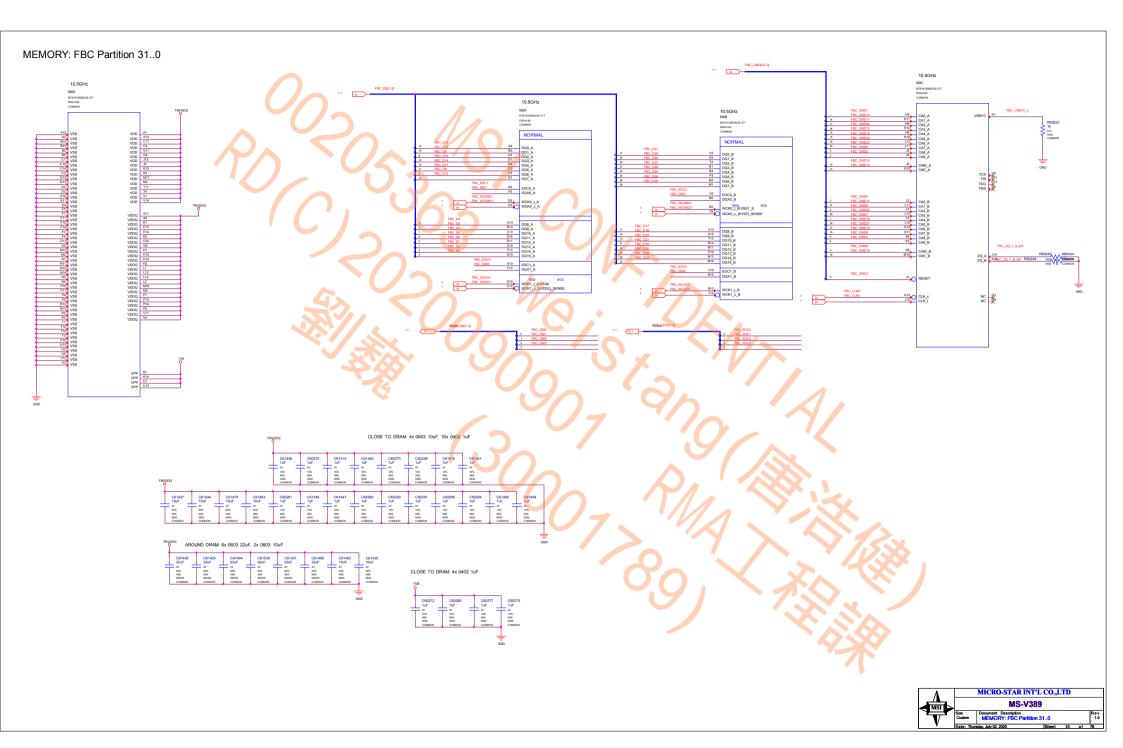


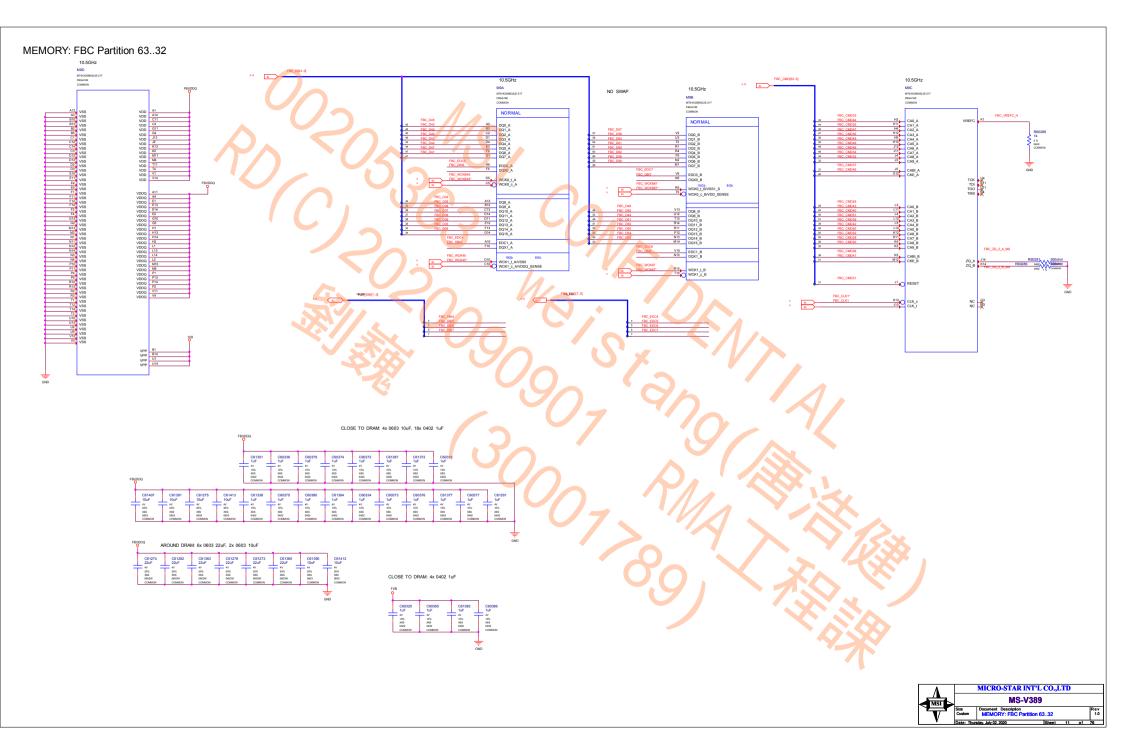


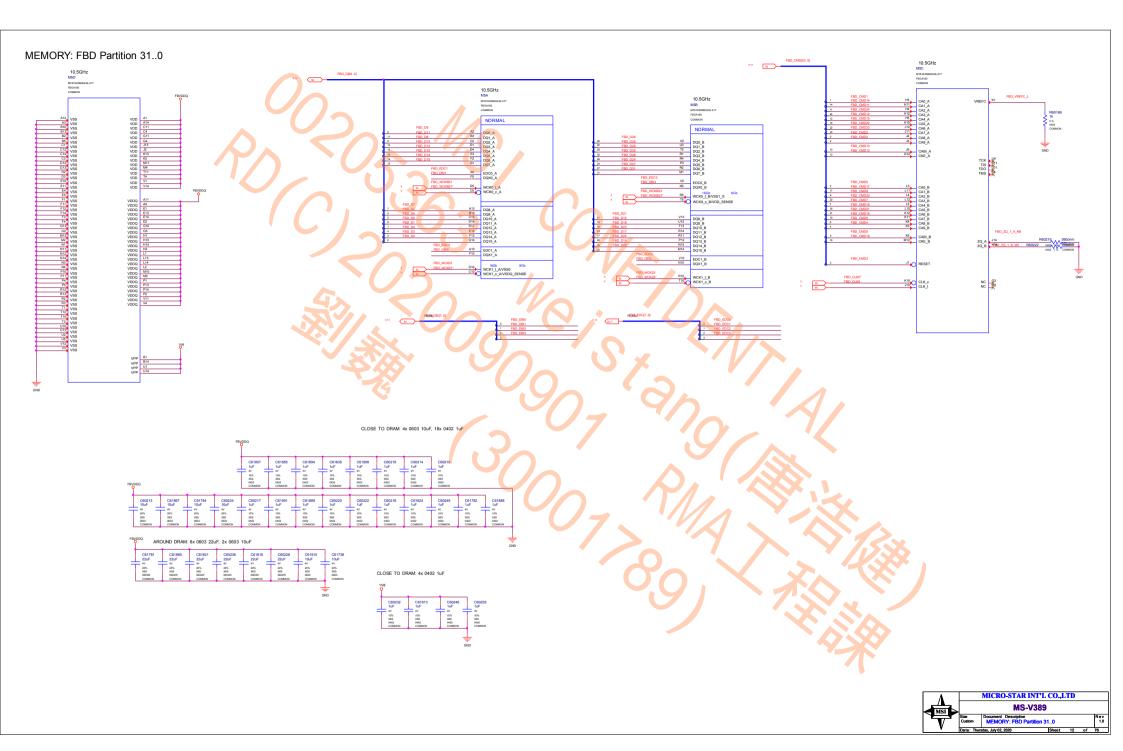
MEMORY: GPU Partition C/D FRC_CADD | A47 | FRC_CADD | FRC_C FIE CLOS ASS FIE C | For 723 RB 00 DB 100 x16 Mod Upper 32 63 DRAM2 CHA-Byte 4,5 CMD1 CMD16 CMD26 CMD26 CMD26 CMD26 CMD26 CMD20 C CMR31 CMR34 CMR34 CMR34 CMR34 CMR34 CMR34 CMR34 CMR34 CMR34 CMR32 CMR33 CMR32 CMR33 CAQ,A CA1,A CA2,A CA2,A CA6,A CA6,A CA7,A CA6,A CA6,A CA6,A CA6,A CAQ_B | FIRE | CAUCHY | CAUCHY | FIRE | CAUCHY | CAUCHY | FIRE | CAUCHY | CAUCHY | CAUCHY | FIRE | CAUCHY | CAUCH FBD_CLK0 L31 FBD_CLK0 M31 FBD_CLK1 M32 L32 G25 FBD_DQM0 G22 FBD_DQM1 G31 FBD_DQM2 G28 FBD_DQM3 G40 FBD_DQM4 FBD_DQM5 G34 FBD_DQM6 G37 FBD_DQM6 FREEDEDC[7..0] SOOHW_NERGERISPLL_F SOCHHA WALFE SPLL_REF FB PLLVDD BA14 FB PLLVDD BF49 CKE_A 10% XES 0402 COMMON CKE_A CKE_B RESET RESET MICRO-STAR INT'L CO.,LTD

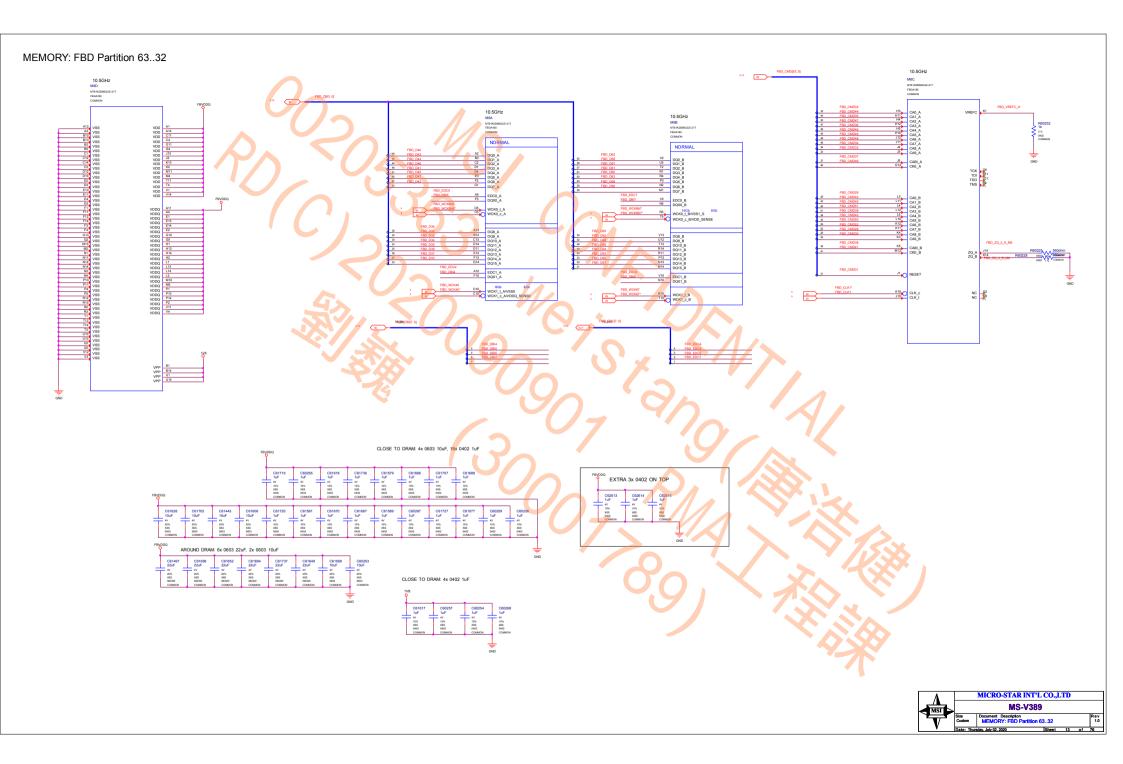
MS-V389

Document Description
MEMORY: GPU Partition C/D



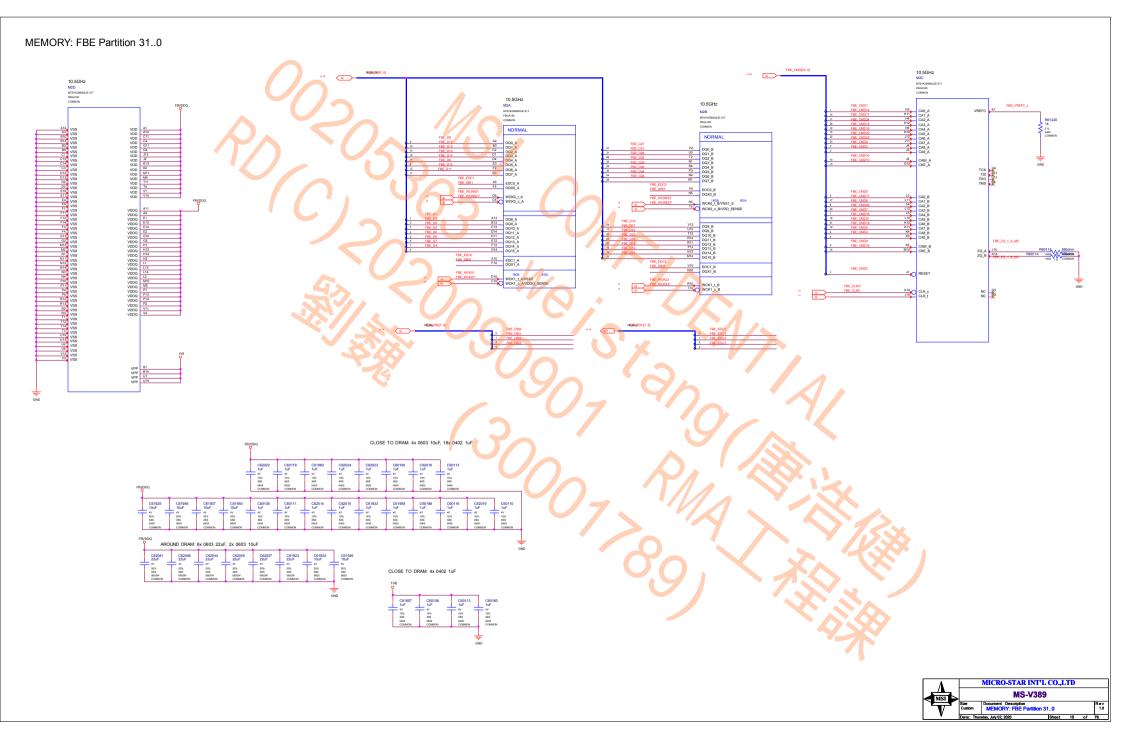






MEMORY: GPU Partition E/F (BI) FEF_CADD FEF_CA OUT | March | Marc CMD1 CMD14 CMD14 CMD15 CMD12 CMD15 CMD22 CMD23 CMD0 CMD12 CMD10 CMD13 CMD33 CMD44 CMD35 CMD47 CMD38 CMD45 CMD45 CMD48 CMD48 CMD48 CMD32 CMD37 CMD37 CAQ,A CA1,A CA2,A CA2,A CA2,A CA2,A CA2,A CA2,A CA2,A CA2,A CMD20 62 CMD21 CMD21 CMD42 CMD51 CMD52 CMD52 CMD52 CMD52 CMD52 CMD52 CMD52 CMD52 CMD54 CMD CHE-Byte 23 CMD 5 CMD 17 CMD 8 CMD 20 CMD 7 CMD 18 CMD 21 CMD 19 CMD 6 CMD 4 CMD 6 CMD 6 CMD 18 BF_CMC0_NC_ BF_BF_CMC0_NC_ BC_DMC0_NC_ BF_BF_CMC0_NC_ BC_DMC0_NC_ BC_DMC CAO_B CA1_B CA2_B FBE_CLK0 FBE_CLK1 FBE_CLK1 FBE_CLK1 FBE_CLK1 FBE_CLK1 FBE_CLK1 FBF_WCK80 | SC13 | FBF_WCK80 | SH10 | FBF_WCK80 | SK12 | FBF_WCK80 | SK22 | FBF_WCK80 | SK32 | FBF_WCK82 | SK32 | FBF_WCK82 | SK32 | FBF_WCK82 | SK32 | FBF_WCK84 | SK32 | FBF_WCK85 | SK32 | FBF_WCK86 | S FP88[[DB1[7..0] AI7 FBE_DQM0 AM7 FBE_DQM1 AC7 FBE_DQM3 P7 FBE_DQM3 P7 FBE_DQM4 FBE_DQM5 FBE_DQM6 FBE_DQM6 FBE_DQM7 R61170 49.9chm R61169 49.9chm R61167 49.9ohm R61168 49.9ohm AJ13 T13 C61583 1uF C61714 1uF CKE_A CKE_B CKE_A CKE_B RESET RESET

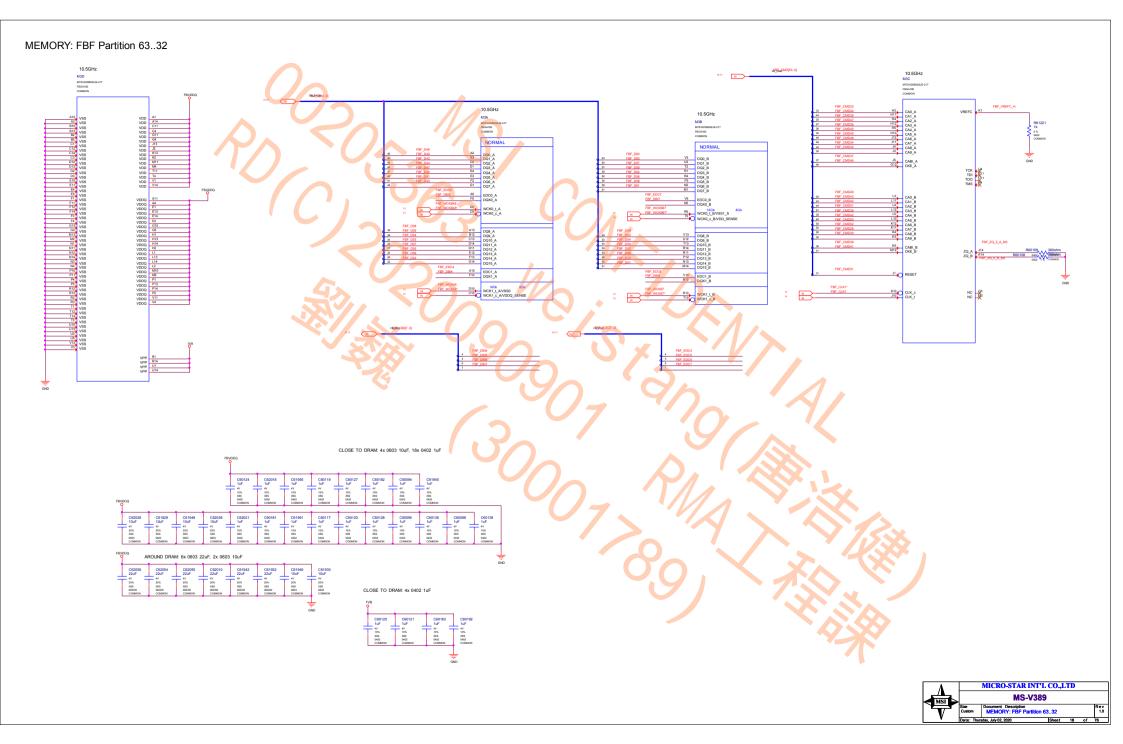


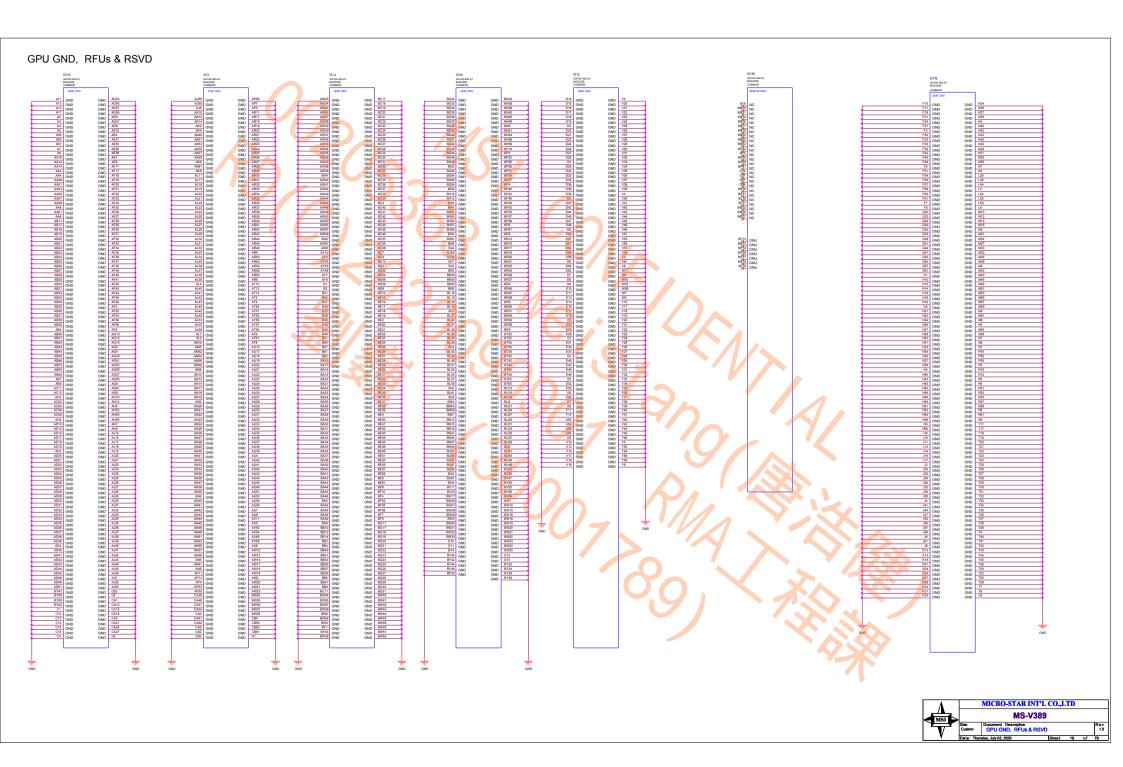


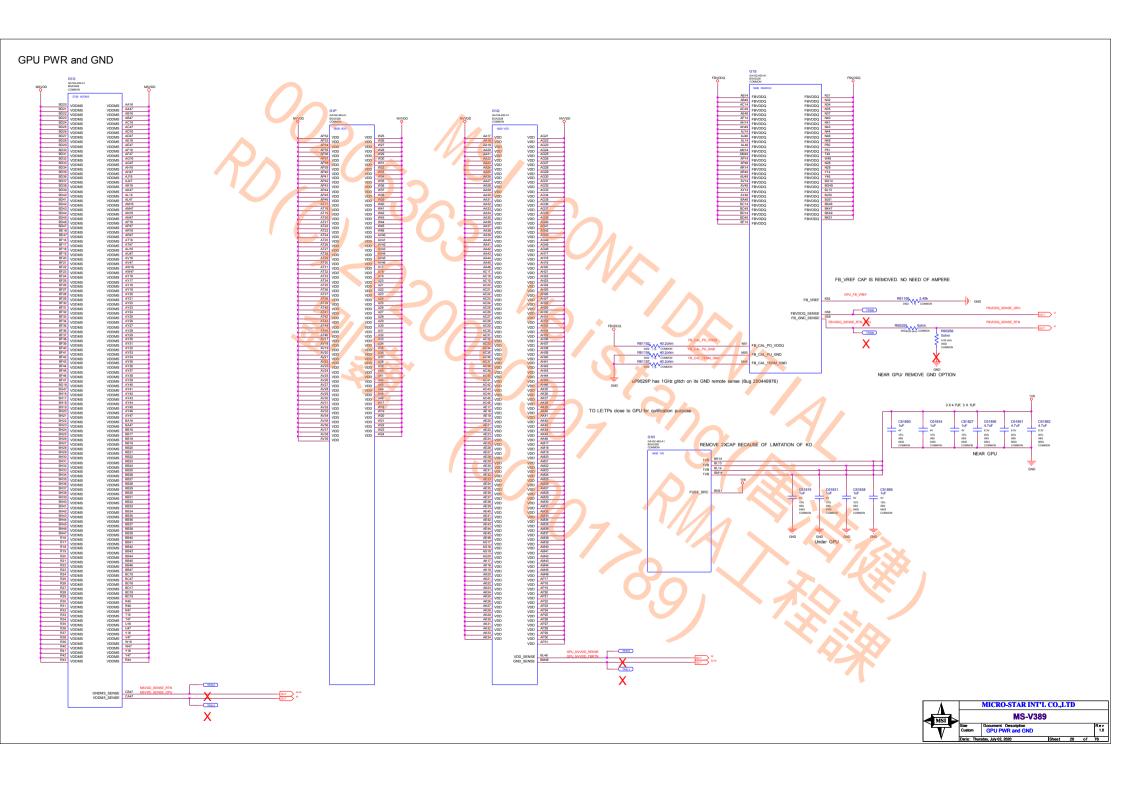
MEMORY: FBE Partition 63..32 FBE_ZQ_2_A_M1 CLOSE TO DRAM: 4x 0402 1uF (was 8x 0201W 0.47uF) CLOSE TO DRAM: 4x 0603 10uF, 18x 0402 1uF

Λ		MICRO-STAR INT'L	CO.,L	TD		
MSI		MS-V389				
	Size Custom	Document Description MEMORY: FBE Partition 63	332			Rev 1.0
	Date: Thur	sday, July 02, 2020/	Sheet	16	of	76

MEMORY: FBF Partition 31..0 10.5GHz MICRO-STAR INT'L CO.,LTD MS-V389







NVVDD

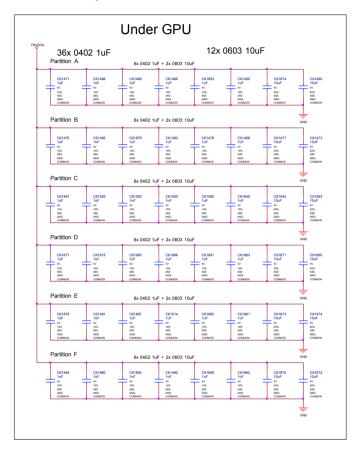
UNDER GPU

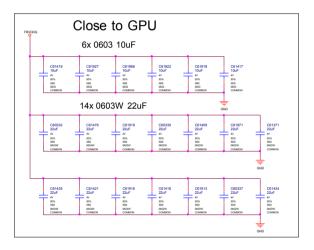






FBVDDQ



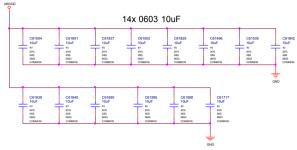




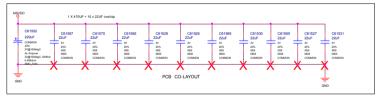
Page 23: GPU: MSVDD DECOUPLING

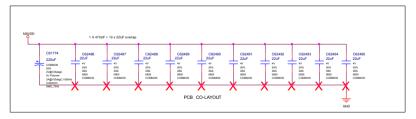
MSVDD

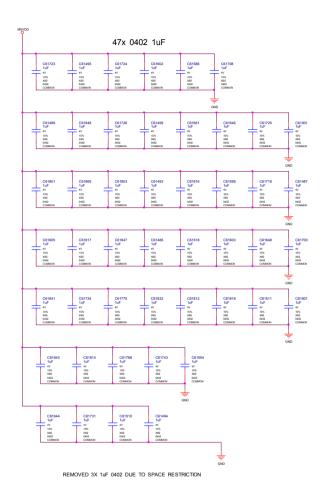
UNDER GPU



2x SMD7343 220uF (EACH CO-LAYOUT WITH 10x 22uF 0805)



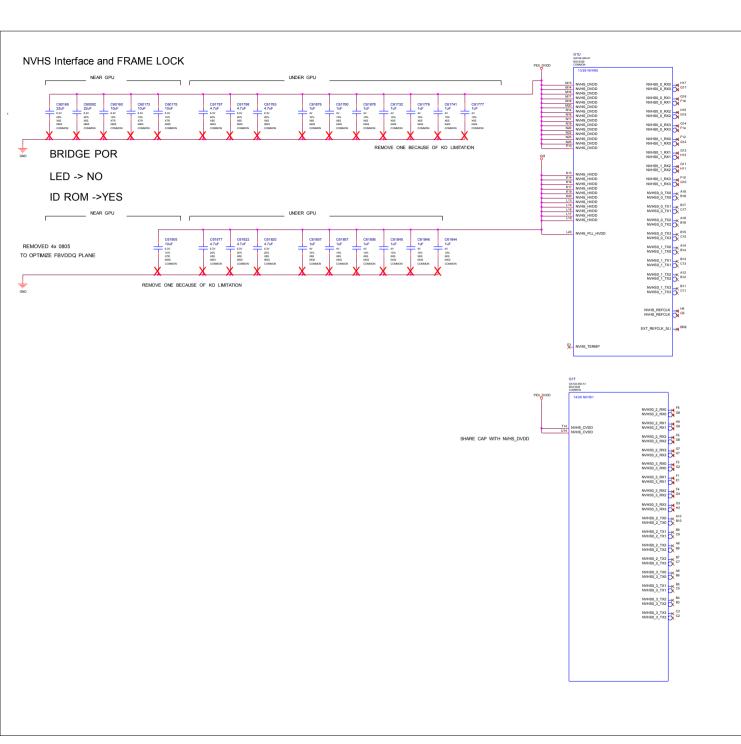




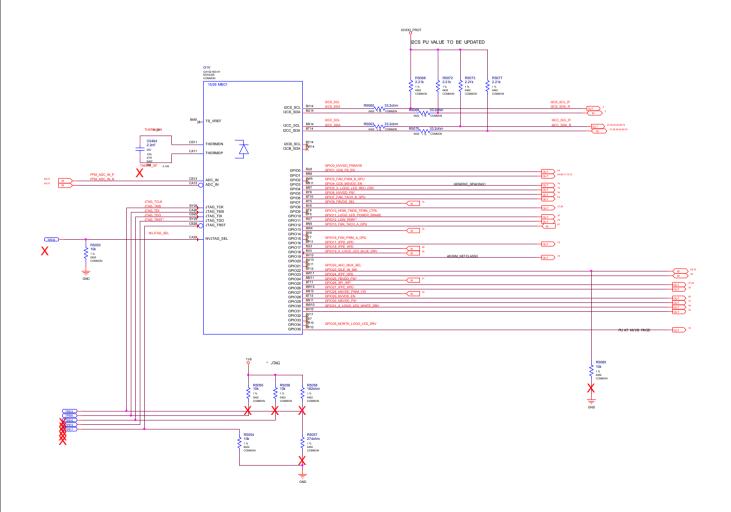


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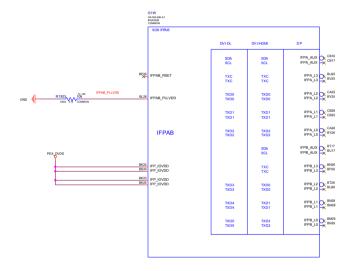




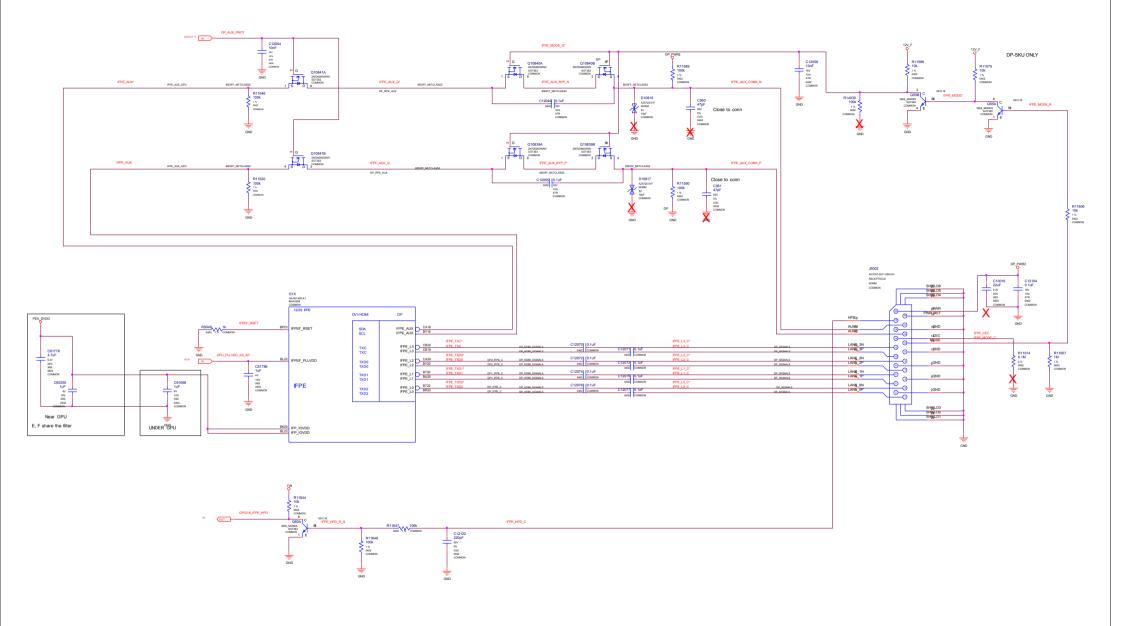




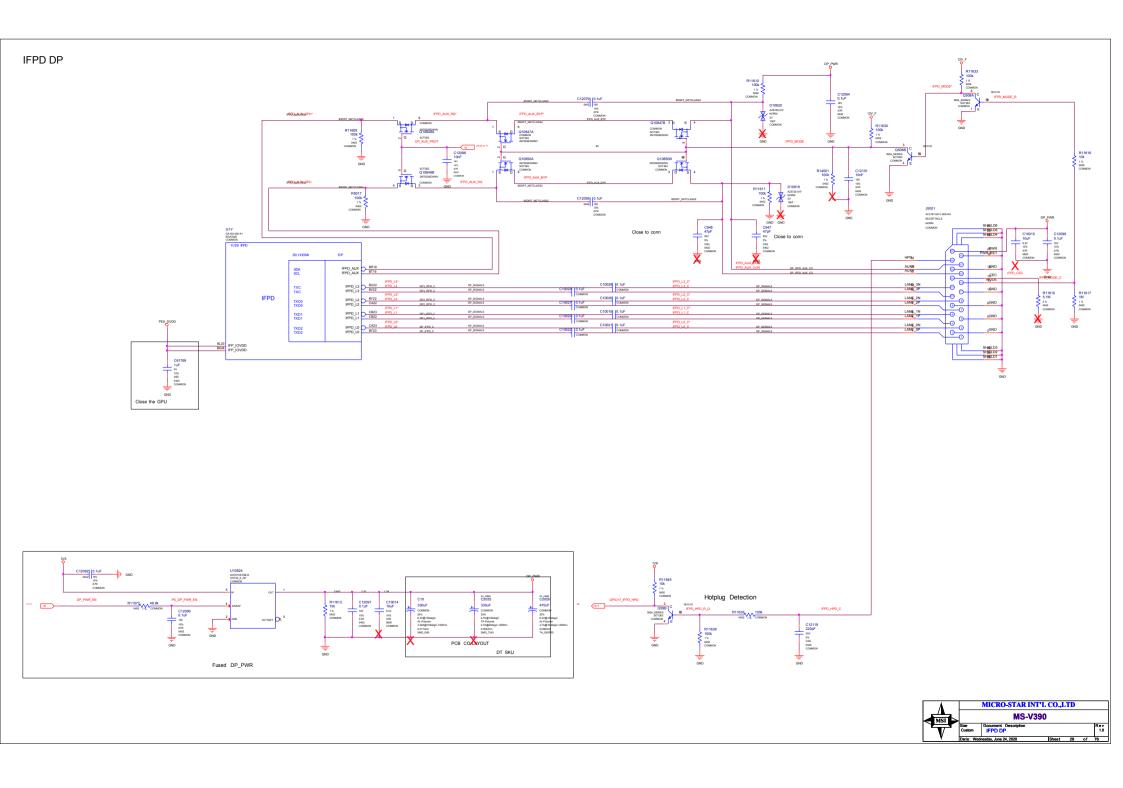
IFPA UNUSED, IFPB UNUSED

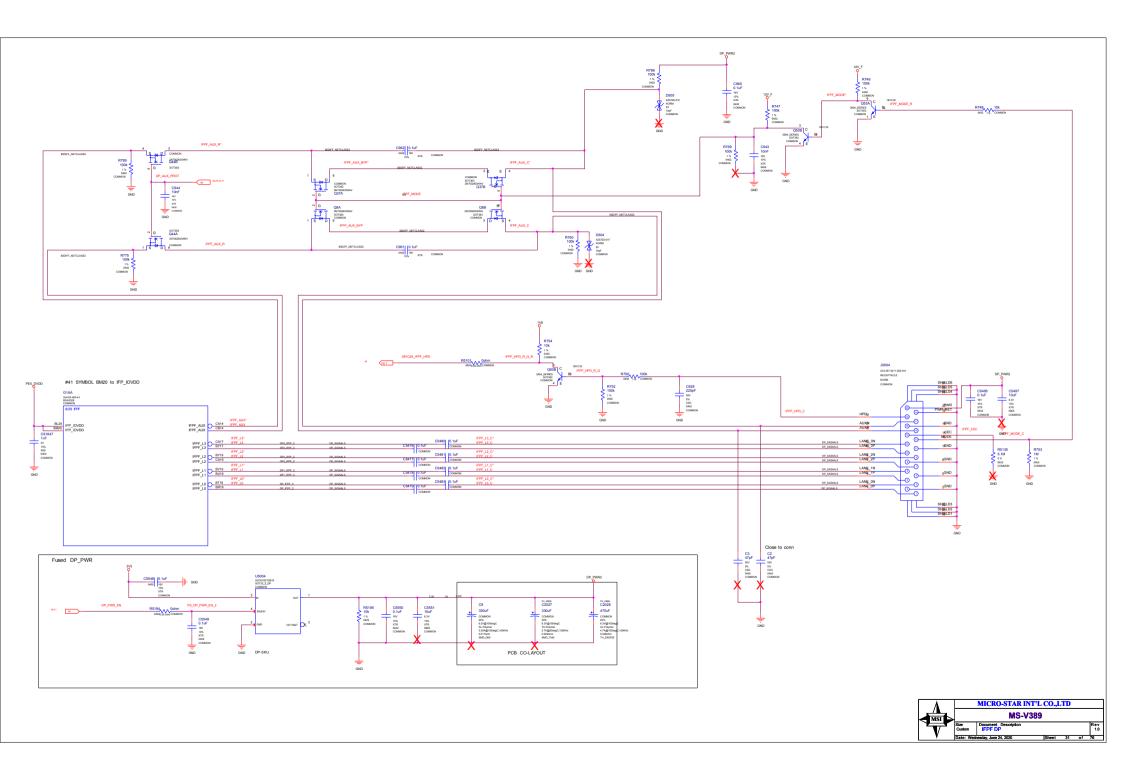






Λ		MICRO-STAR INT	'L CO.,L	TD		
MSI		MS-V3	B9			
	Size Custom	Document Description IFPE DP				Rev 1.0
, Y	Date: Wed	nesday, June 24, 2020	Sheet	28	of	76





MISC: ROM, Straps

GROUP0				
STRAP2	STRAP1	STRAP0	RAMCFG[4:0]	
L	L	L	00000	RAMCFG MICRON 8Gb G6X 19Gbps x16 (161-0430-900)
Н	L	L	00100	RAMCFG MICRON 8Gb G6X 19Gbps x8 (161-0430-900)
Н	L	Н	00101	RAMCFG MICRON 8Gb G6X 21Gbps x8 (161-0431-900)
L	L	М	01000	RAMCFG MICRON 8Gb G6X 20Gbps x16 (161-0424-900)
L	L	н	00001	RAMCFG MICRON 8Gb G6X 21Gbps x16 (161-0431-900)
L	М	Н	01010	RAMCFG MICRON 8Gb G6X 19Gbps x16 (161-0430-900)

ROM_SO	ROM_SI	ROM_SCLK	SMARTFAN[2:0],FS_OVERT	1:ENABLE 0:DISABLE			
н	н	н	0111	FS_OVERT ENABLE			
L	L	L	0000	FS_			
STRAP5	STRAP4	STRAP3	SMB_ALT_ADDR	DEVID_SEL	PCIE_CFG	VGA_DEVICE	
М	Н	н	1	1	1	1	
М	Н	L	1	1	1	0	
М	L	н	1	1	0	1	
М	L	L	1	1	0	0	
L	Н	М	1	0	1	1	
L	М	н	1	0	1	0	
L	М	L	1	0	0	1	
L	L	M	1	0	0	0	
н	Н	н	0	1	1	1	
н	н	L	0	1	1	0	
Н	L	н	0	1	0	1	
Н	L	L	0	1	0	0	
L	Н	н	0	0	1	1	
L	н	Ĺ	0	0	1	0	
L	L	н	0	0	0	1	
L	L	L	0	0	0	0	

H=High :Tied to 1.8V M=Middle:Tied to 0.9V L=Low :Tied to 0V

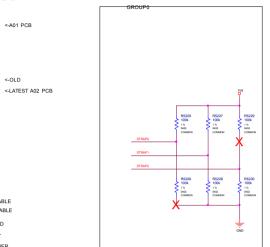
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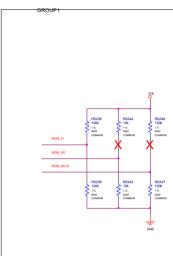
<-OLD

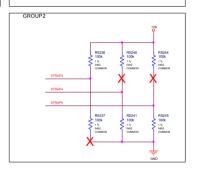
1:SMB_ALT_ADDR ENABLE 0:SMB_ALT_ADDR DISABLE 1:DEVID_SEL REBRAND 0:DEVID_SEL ORIGNAL 1:PCIE_CFG LOW POWER 0:PCIE_CFG HIGH POWER 1:VGA_DEVICE ENABLE 0:VGA_DEVICE DISABLE

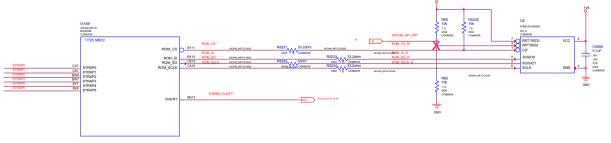
DEFAULT

Default

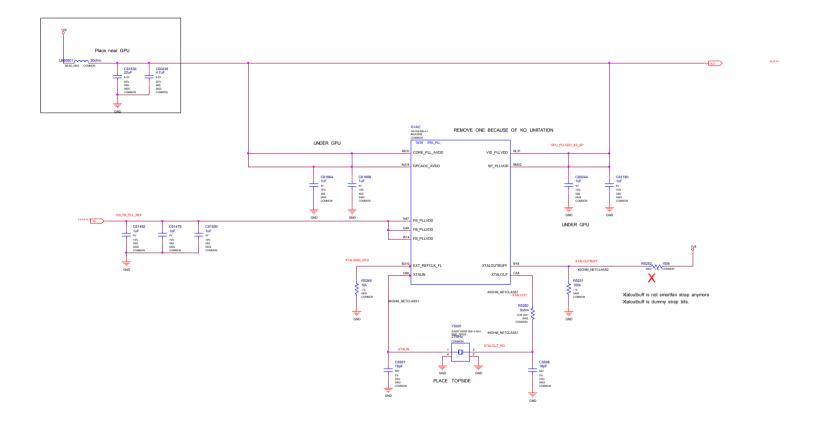




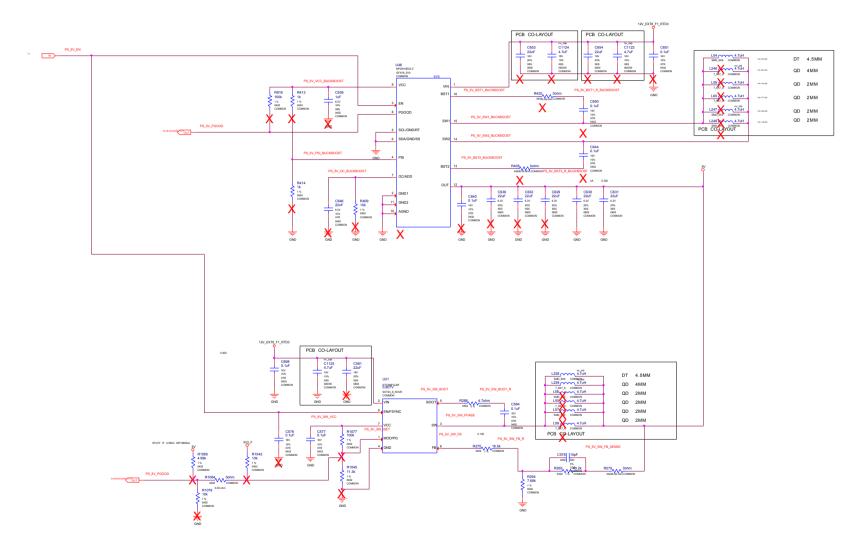






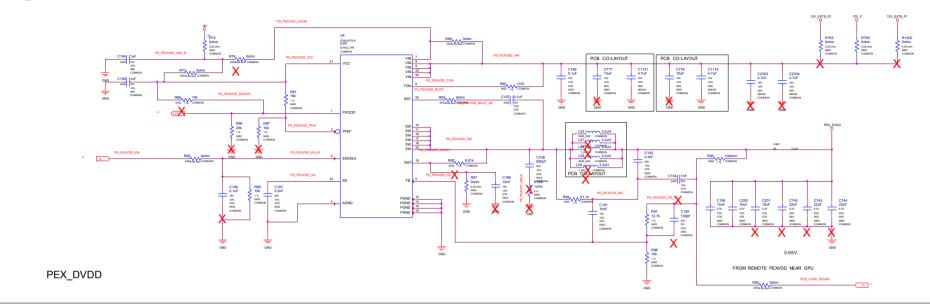


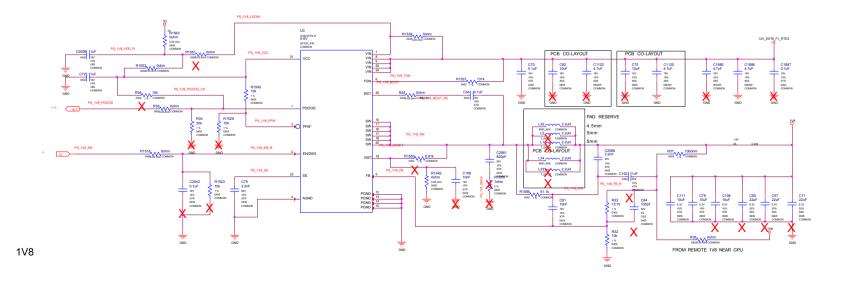




٨		MICRO-STAR INT'L	CO.,L	TD		
MSI		MS-V389)			
	Size Custom	PS: 5V, 5V_BACKUP				Rev 1.0
₹	Date: Weds	nesday, June 24, 2020	Sheet	34	of	76

PS: PEX_DVDD 1V8 Rail

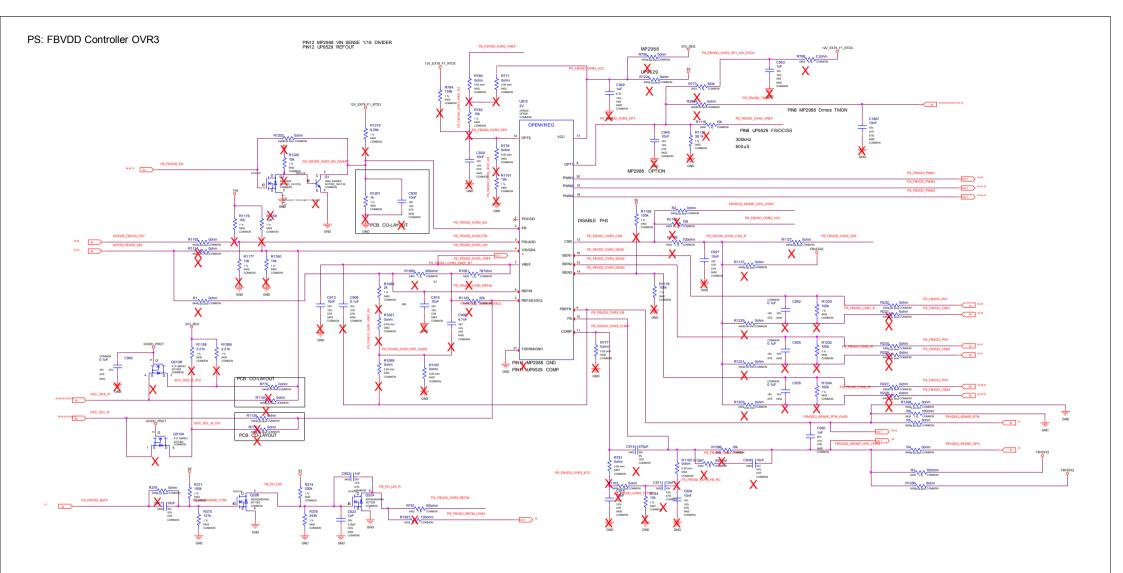






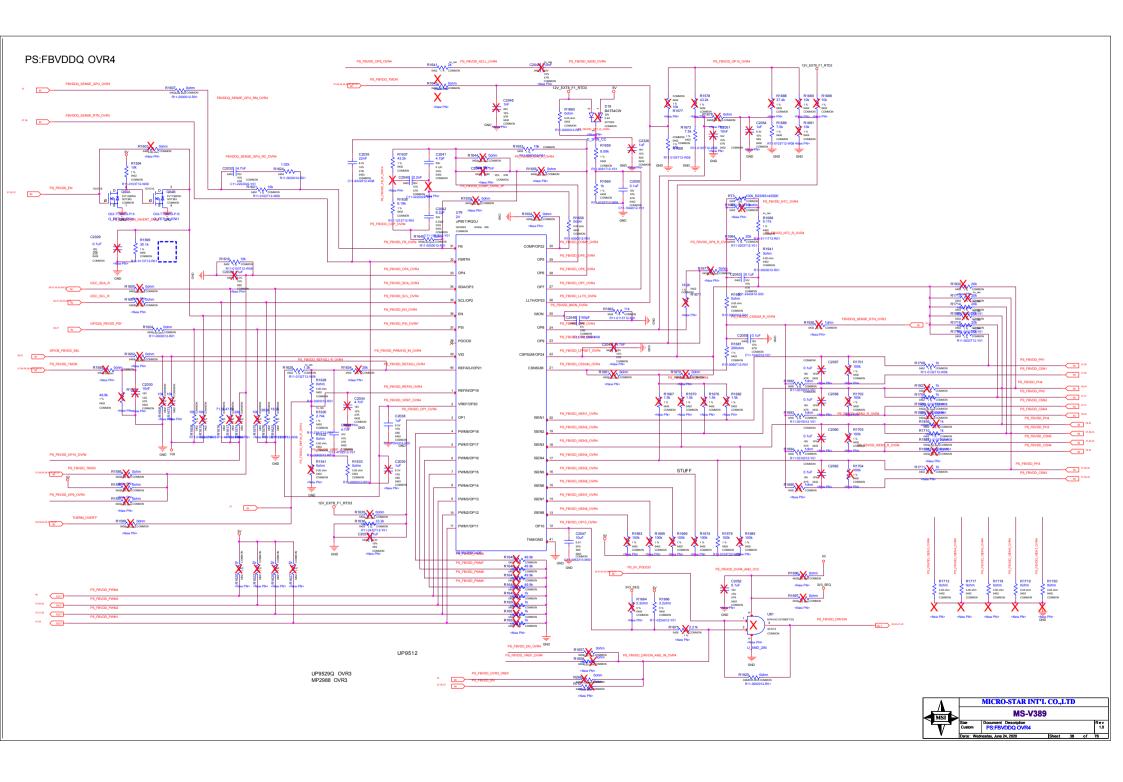
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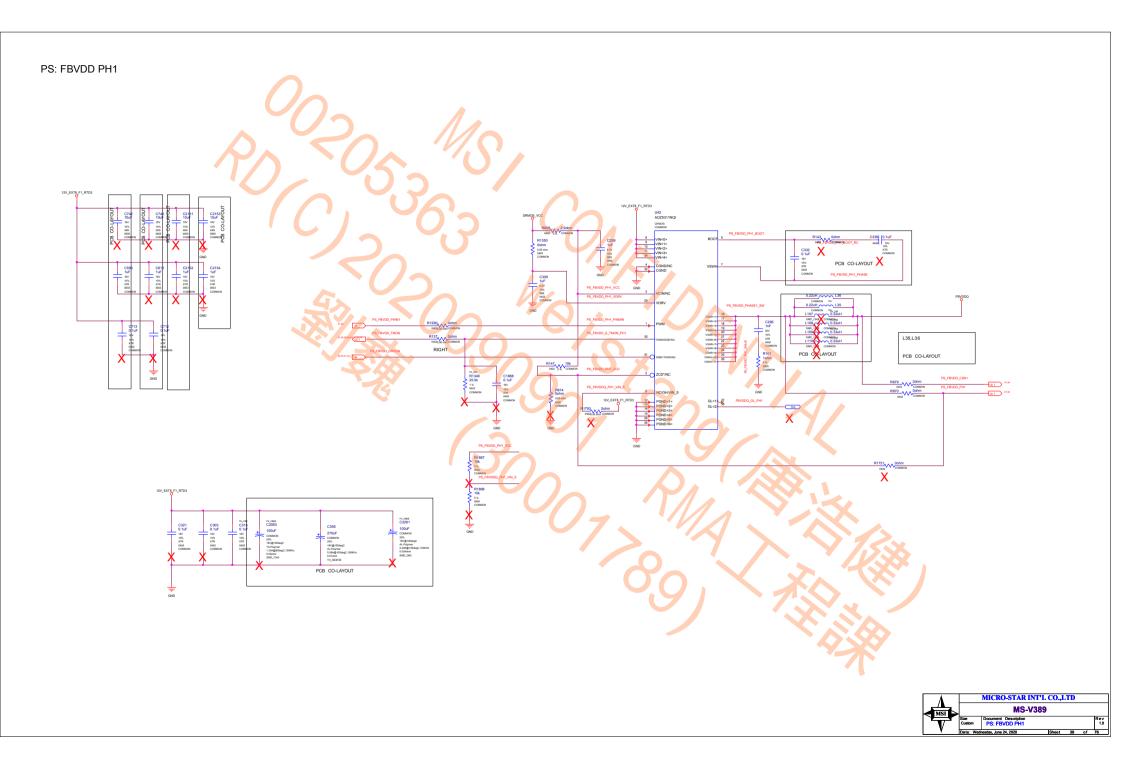
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MSI		MS-V389	•			
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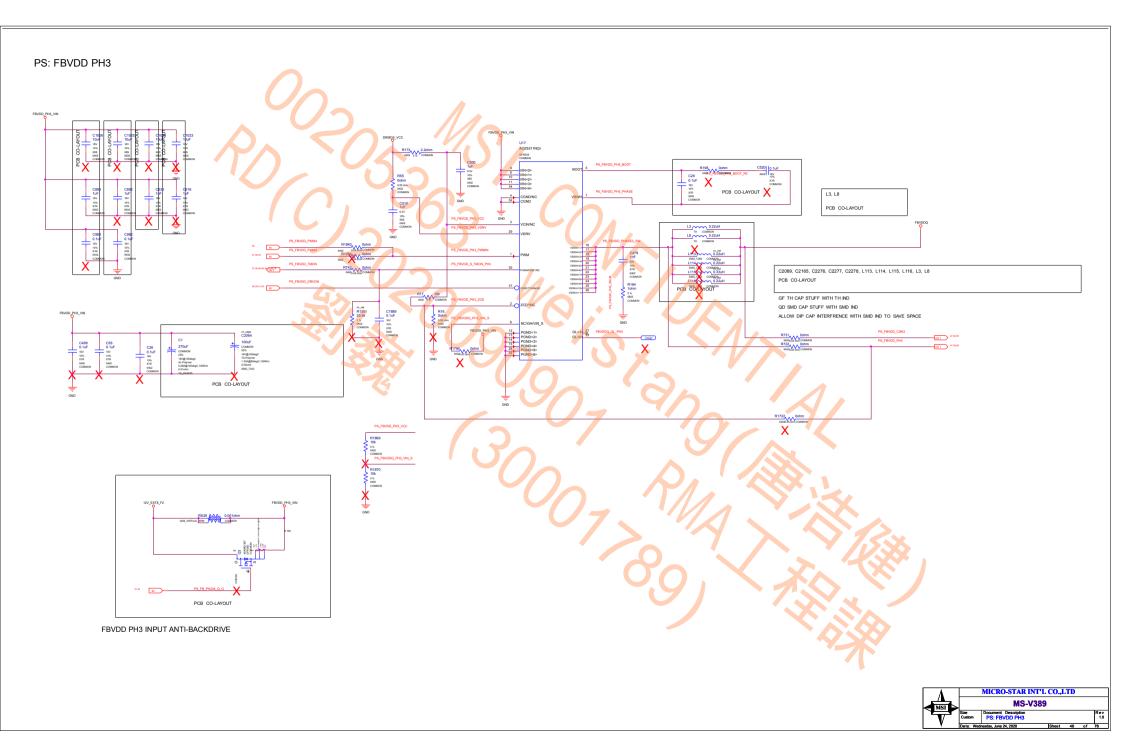


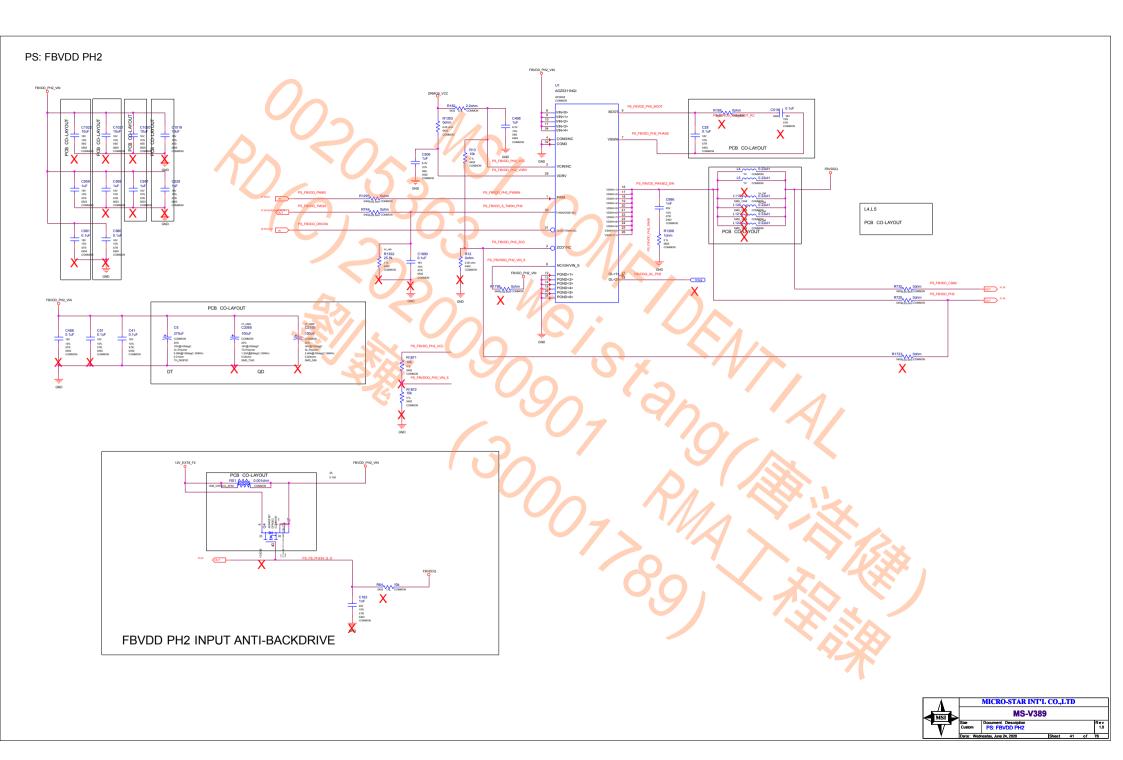
FOR DT SKU

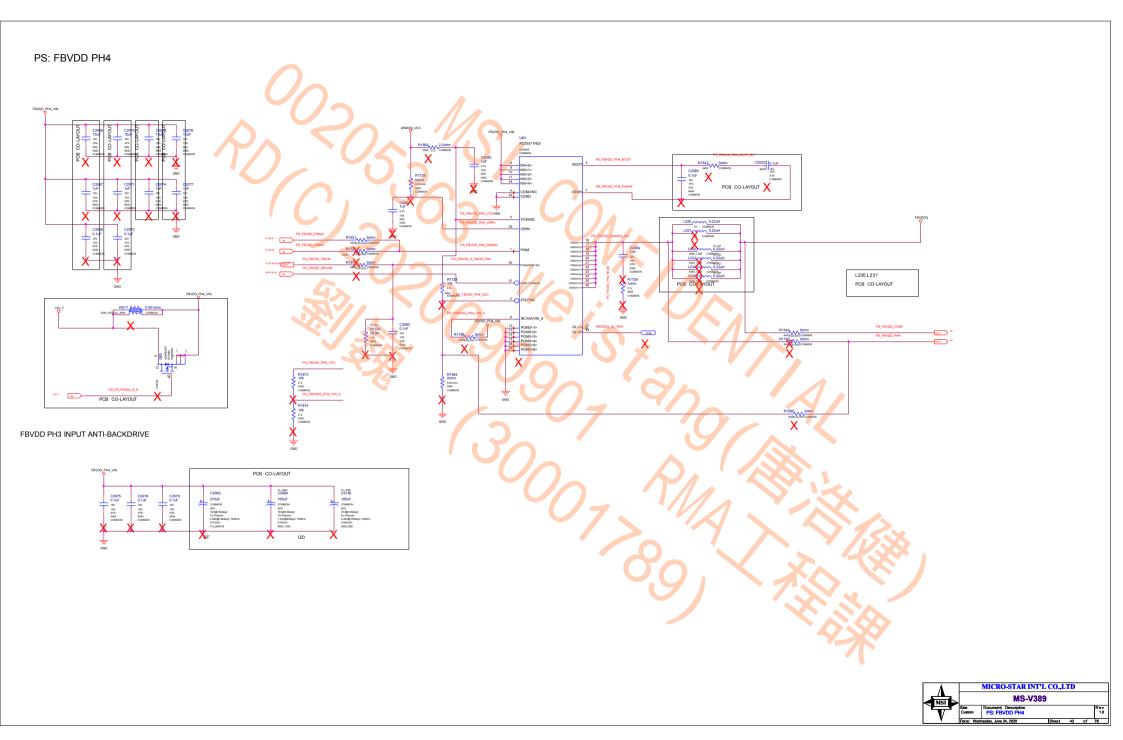
Λ.	MICRO-STAR INT'L CO.,LTD						
MSI	MS-V389						
	Size Custom	Document Description PS: FBVDD Controller OVR3	Rev 1.0				
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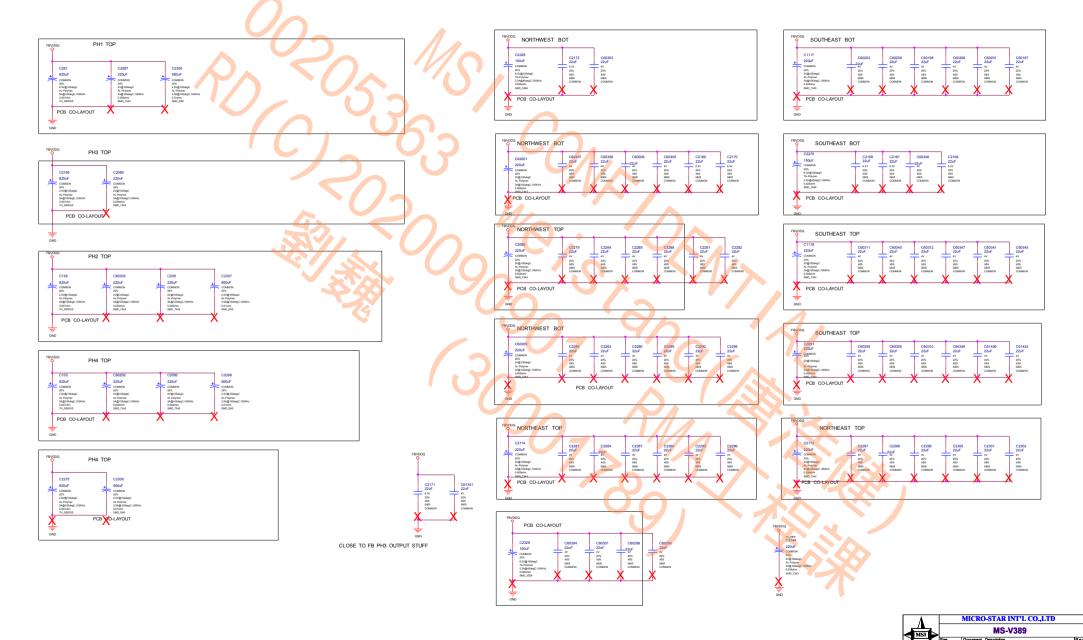


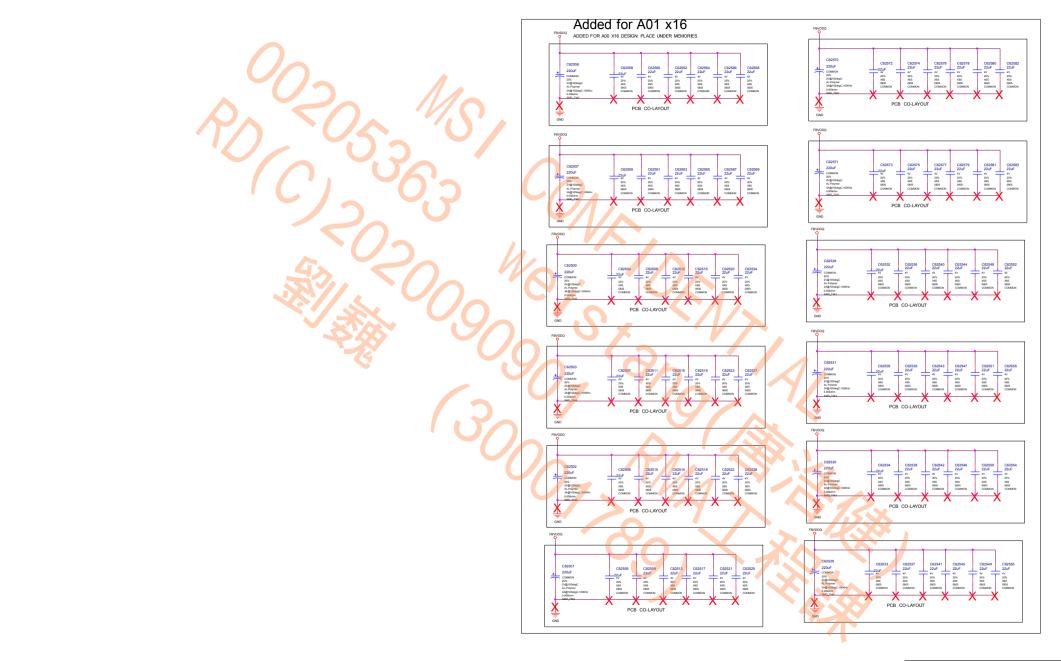




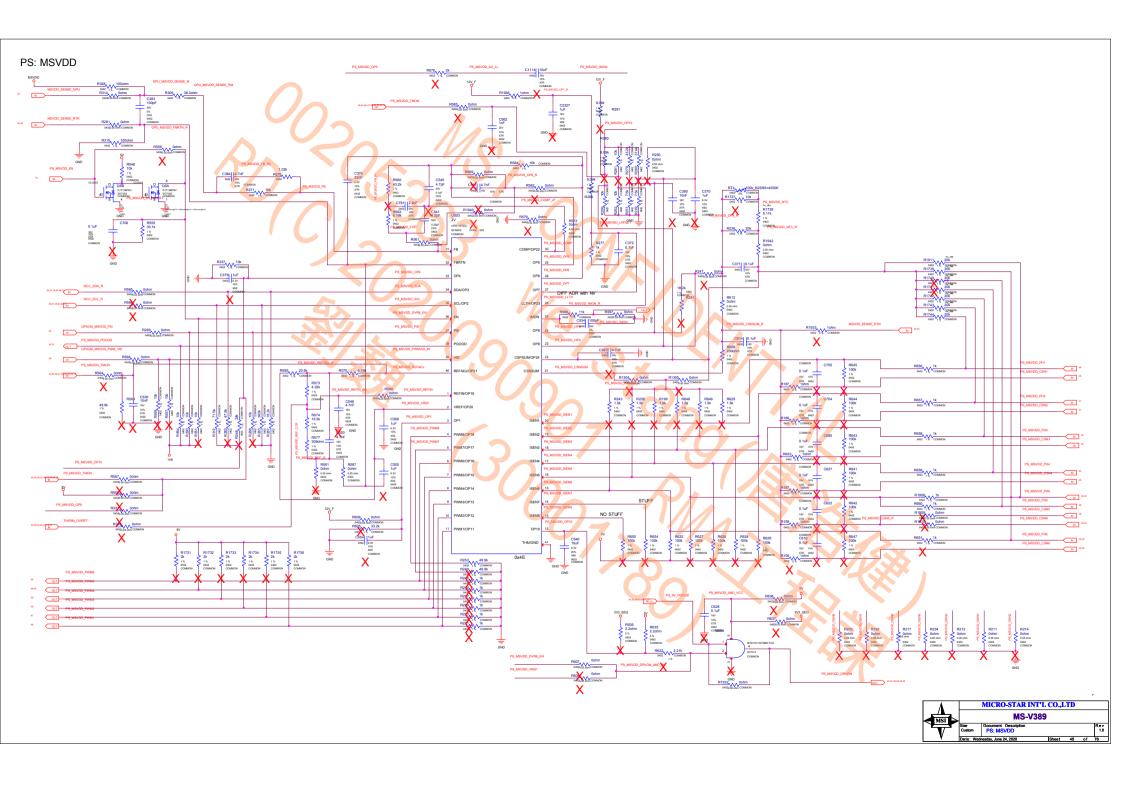


3x 820uF TH FBVDD OUTPUT BULK CAPS





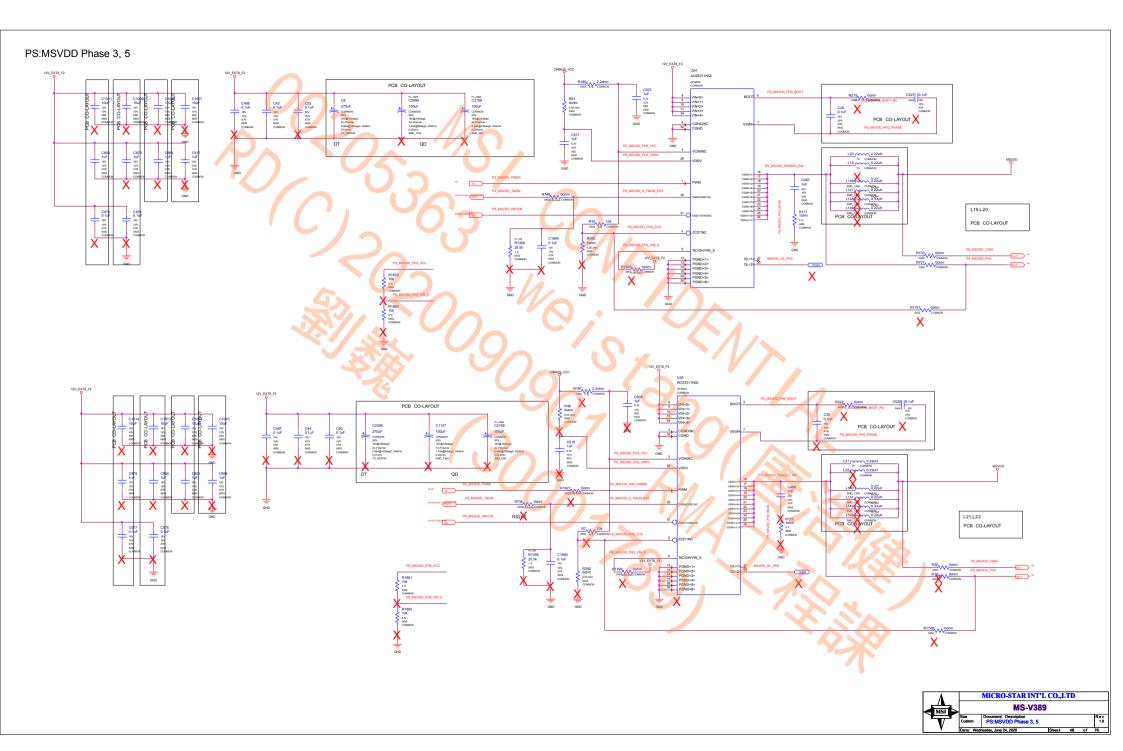


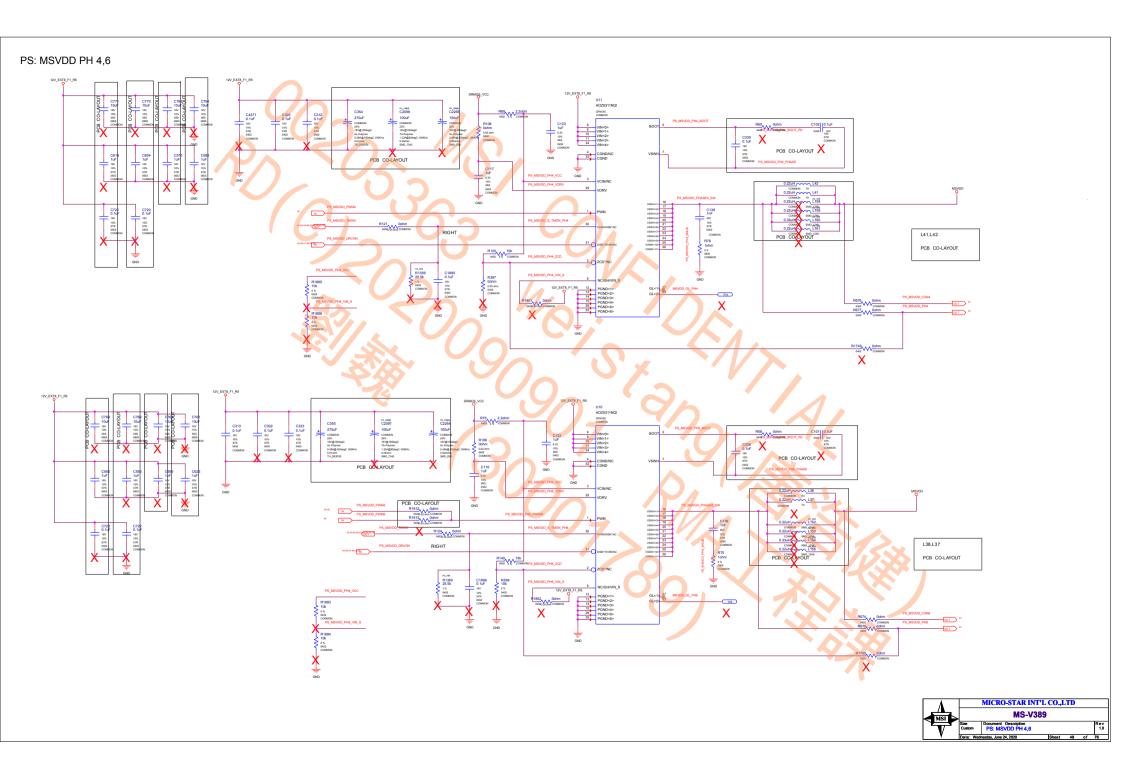


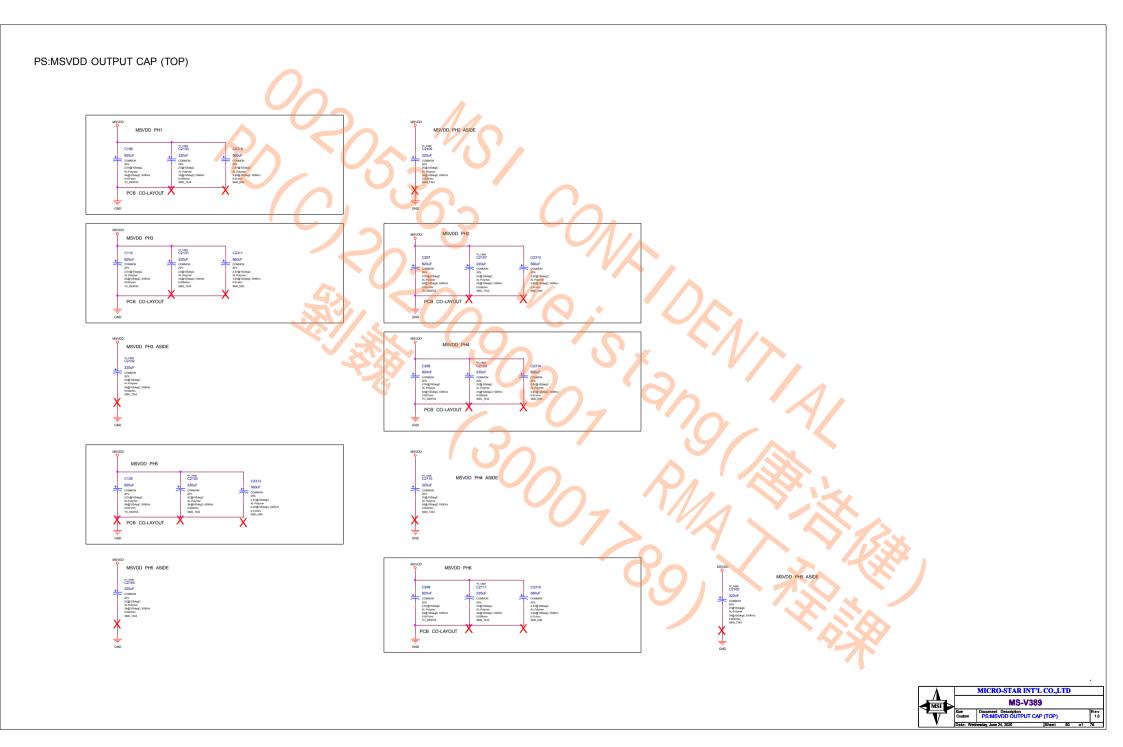
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PS: MSVDD PH 2 PCB CO-LAYOUT X L39,L40 PCB CO-LAYOUT 4.6MM CAP FOR HP

[A		MICRO-STAR INT'L CO.,LTD							
		MS-V38	39							
	Size Custom	PS: MSVDD PH 2				Rev 1.0				
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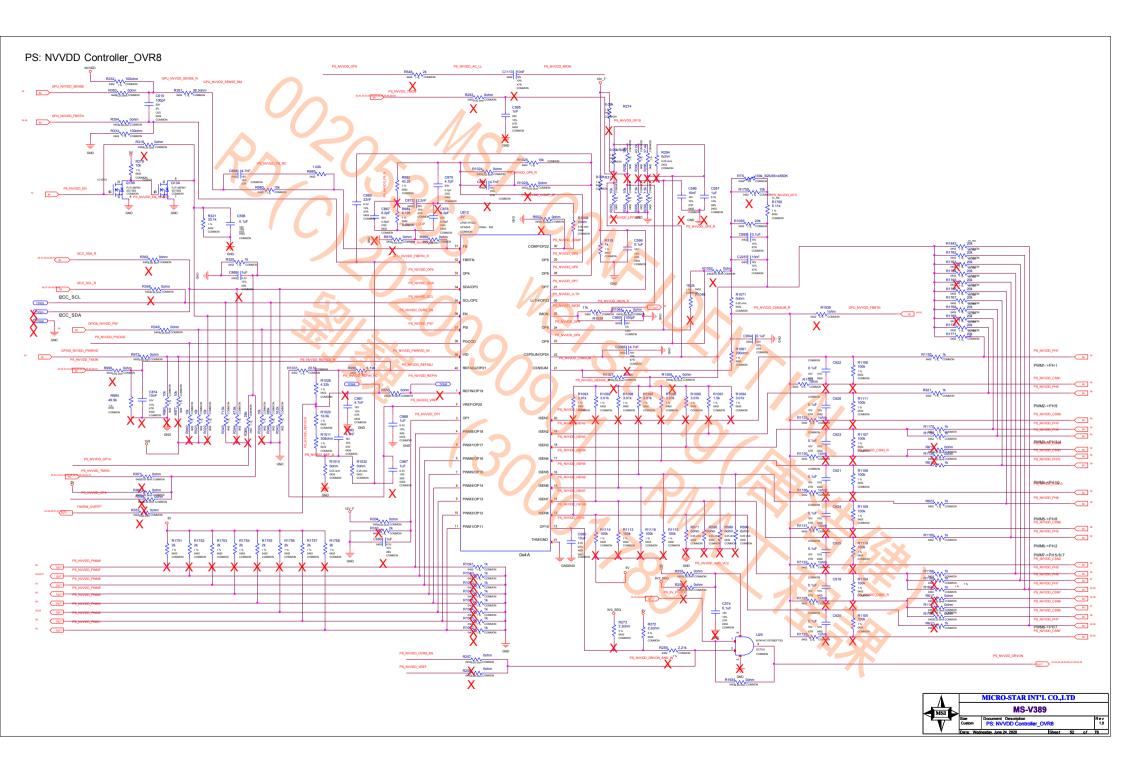


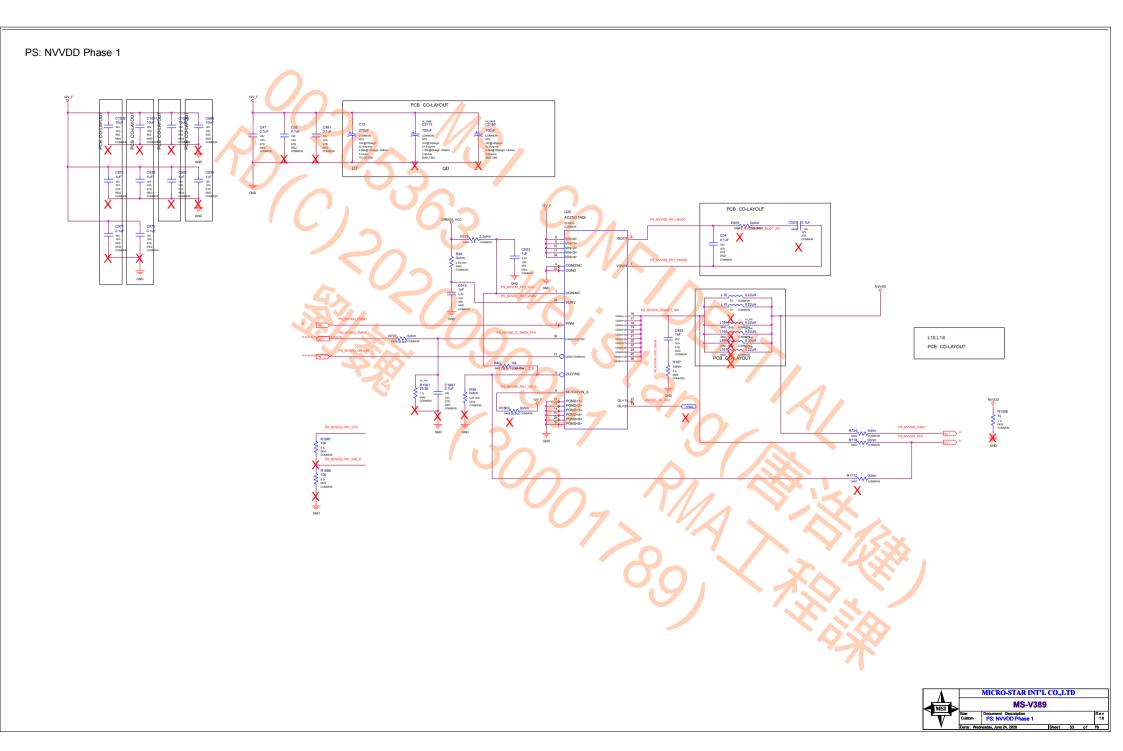






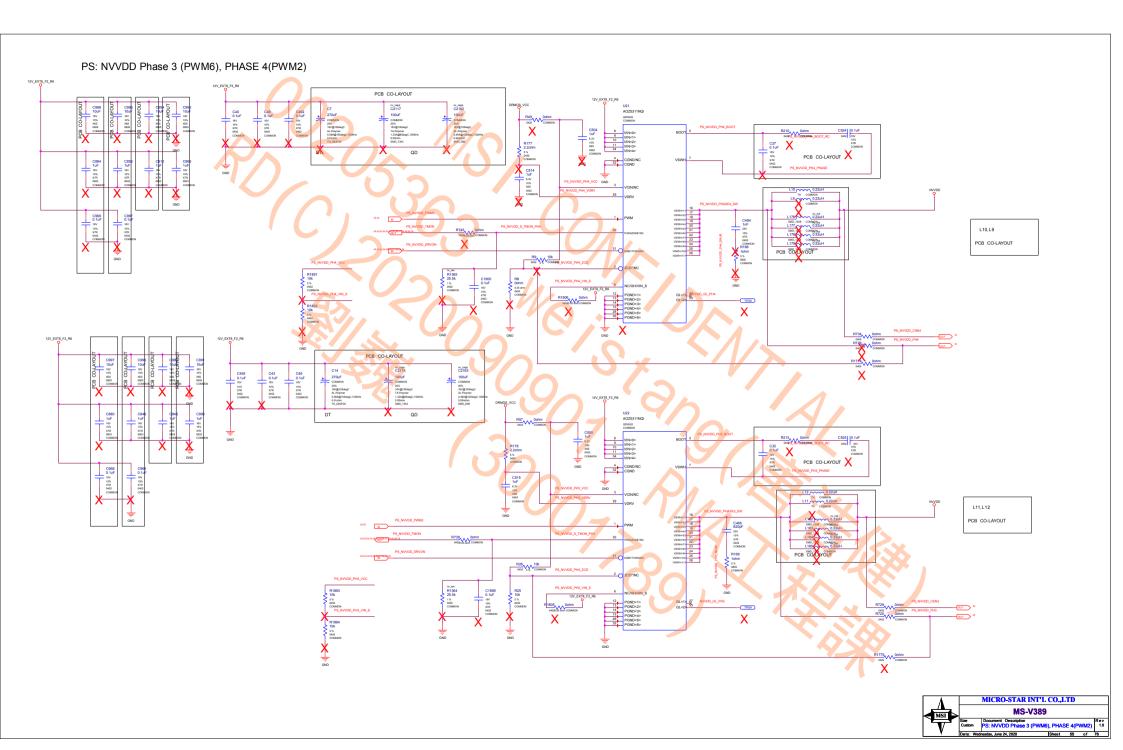
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	Size Custom	Document BLANK	Description					Rev 1.0
	Date: Wed	nesday June 2	4 2020		Sheet	51	of	76

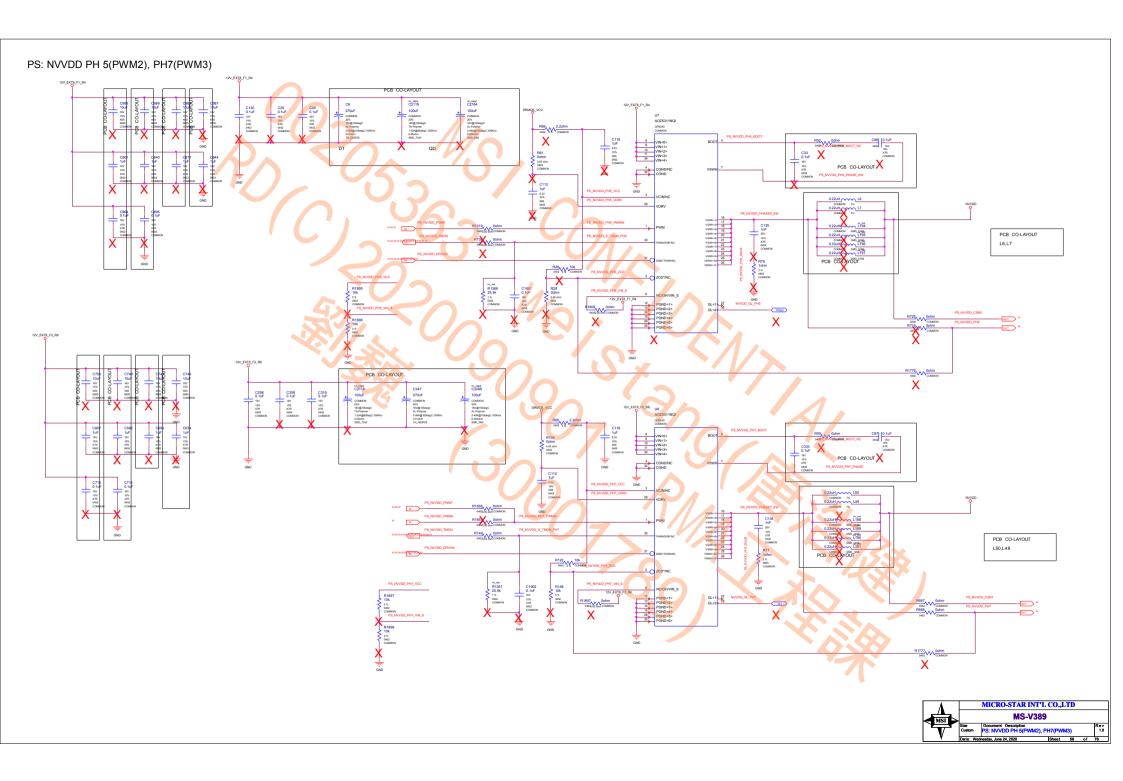


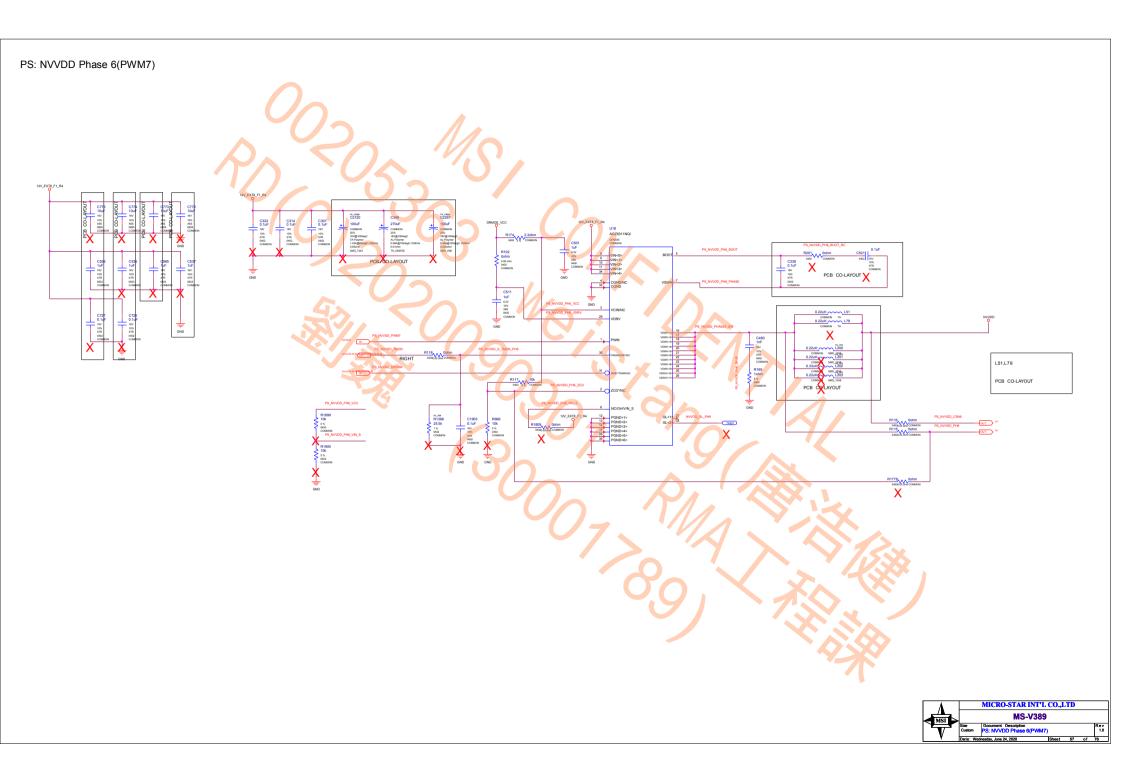


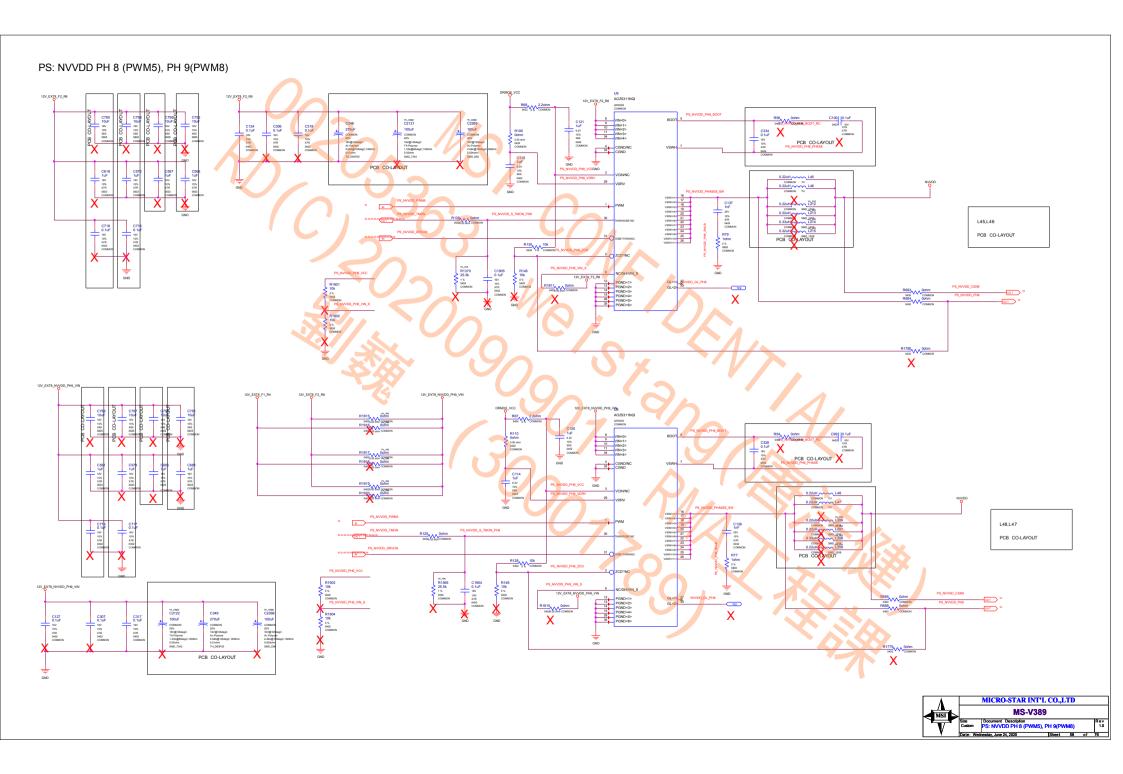
PS: NVVDD Phase 2 MPS DRMOS WITH 3V3 UPPLY L13,L14 PCB CO-LAYOUT PCB CO-LAYOUT MICRO-STAR INT'L CO.,LTD

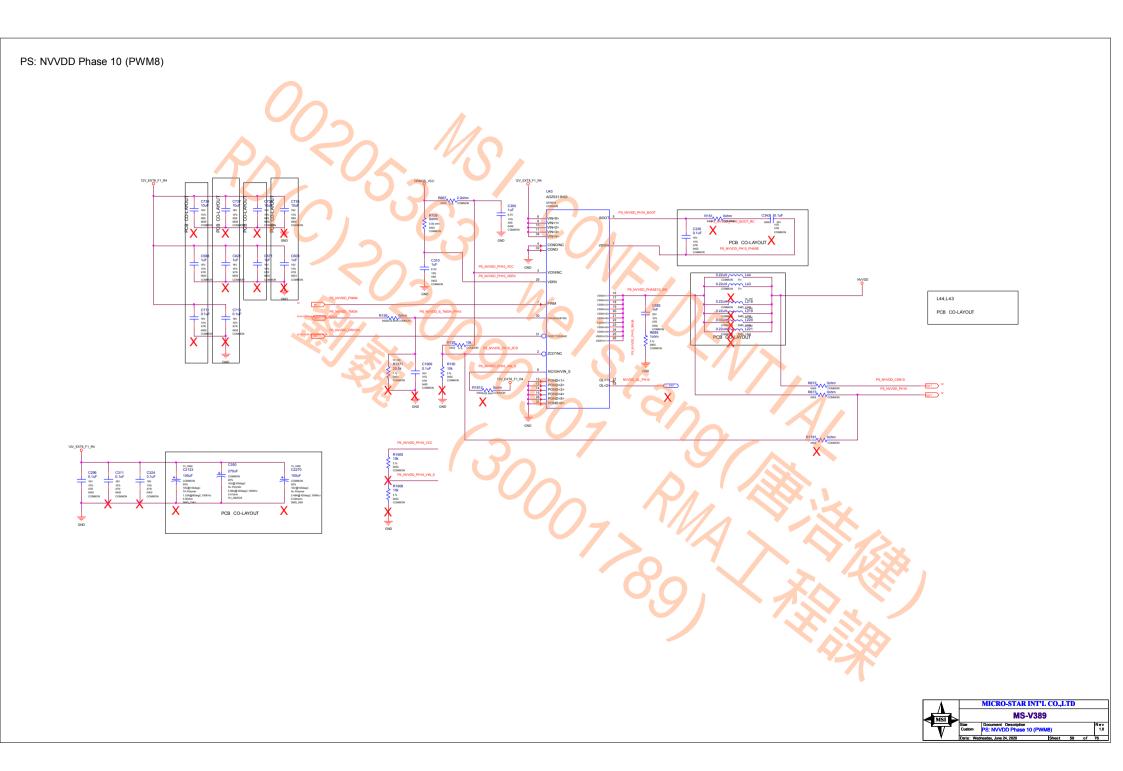
MS-V389













PCB CO-LAYOUT C131, C132, C133,

C131, C132, C133, C140, C141, C142, C2106, C2107, C2133, C2134, C2135, C2137, C264, C265, C266, C267, C61, C64, C65, C66, C67, C68, C69, C77, C80, C83, C88

PCB CO-LAYOUT

C103, C105, C106, C107, C108, C110, C1208, C125, C1254, C1256, C1267, C128, C144, C145, C146, C151, C152, C153, C154, C159, C160, C161, C162, C170, C173, C2082, C2101, C2101, C2102, C2103, C2104, C2138, C2139, C2140, C2141, C2142, C2143, C2144, C2272, C230, C231, C232, C233, C245, C255, C256, C256, C256, C256, C270, C274, C275, C276, C283, C283, C289, C290, C291, C6202, C62004, C62005, C62004, C62004, C62005, C62004, C62004, C62005, C62005, C62004, C62005, C62005, C62004, C62005, C62005, C62005, C62005, C62004, C62005, C62005, C62005, C

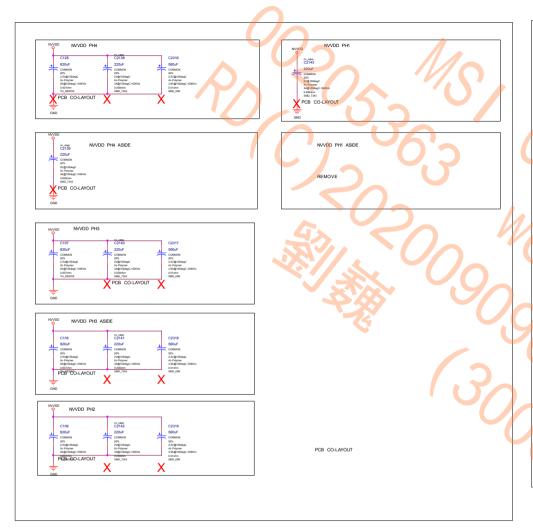
C163, C164, C166, C167, C2087, C2105, C2109, C2110, C2111, C224, C225, C261, C268, C269, C60354, C61428, C62, C63, C89, C91, C96

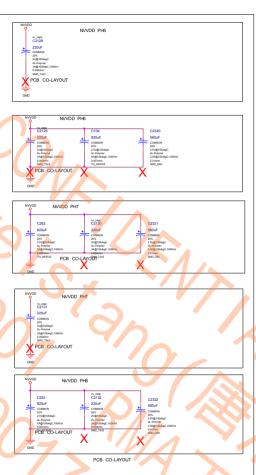
PCB CO-LAYOUT

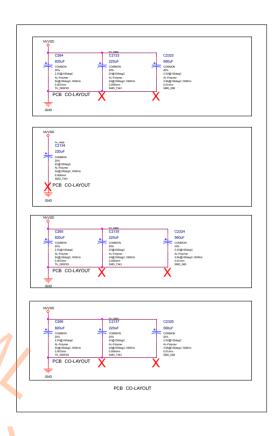




PS: NVVDD OUTPUT CAP(TOP)





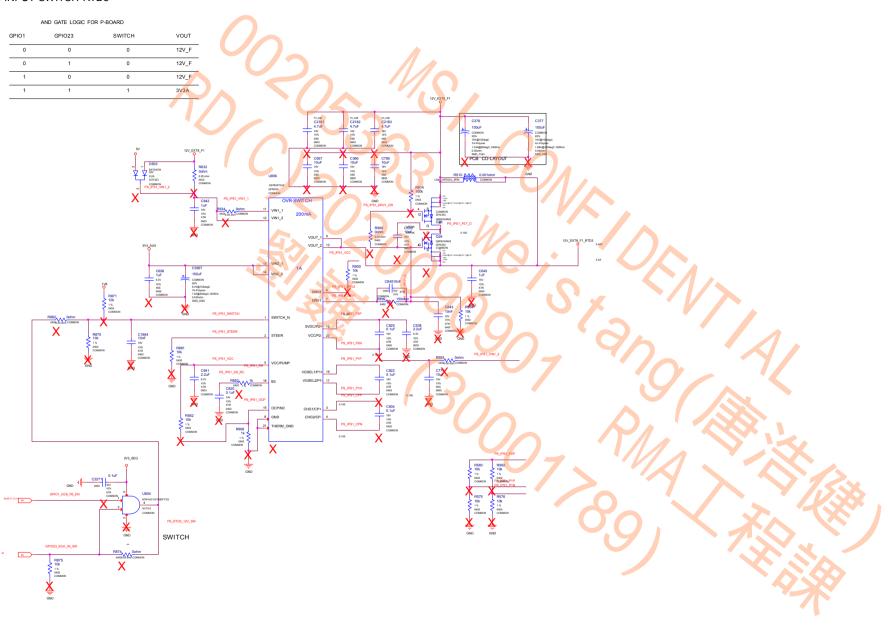






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MSI	MS-V389				
	Size Document Description Custom BLANK	Rev 1.0			
	Date: Wednesday, June 24, 2020 Sheet 63 of	76			

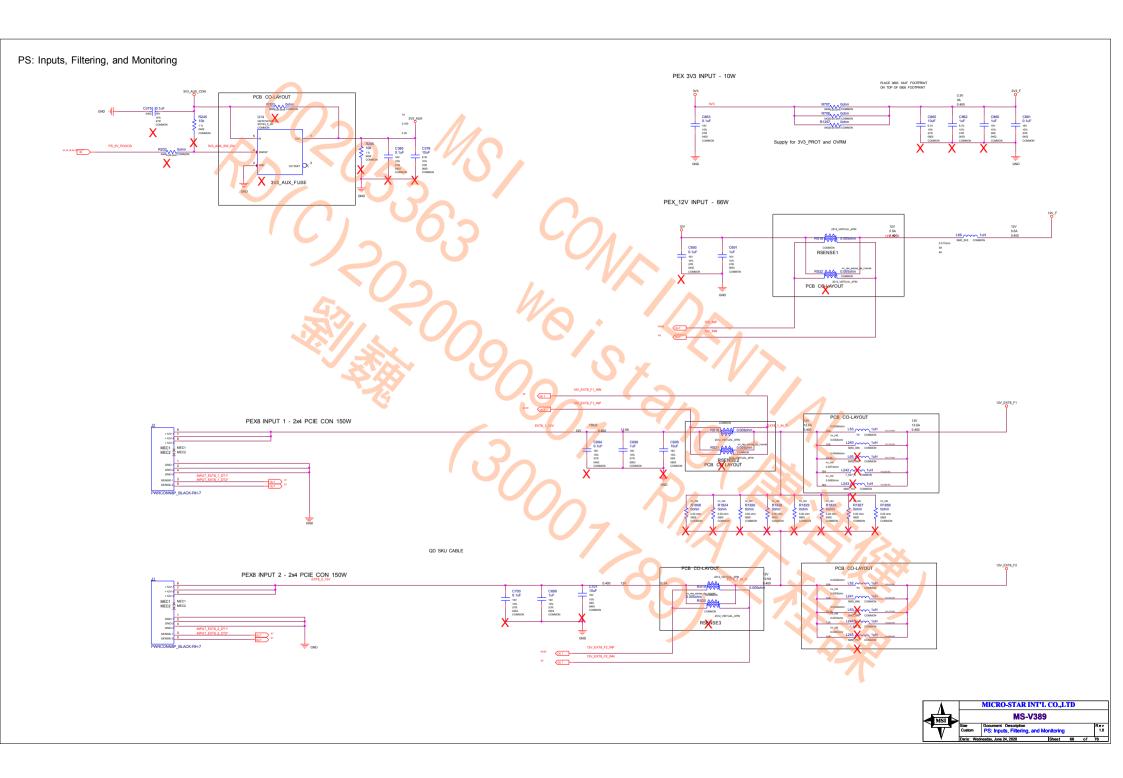
PS: INPUT SWITCH RTD3



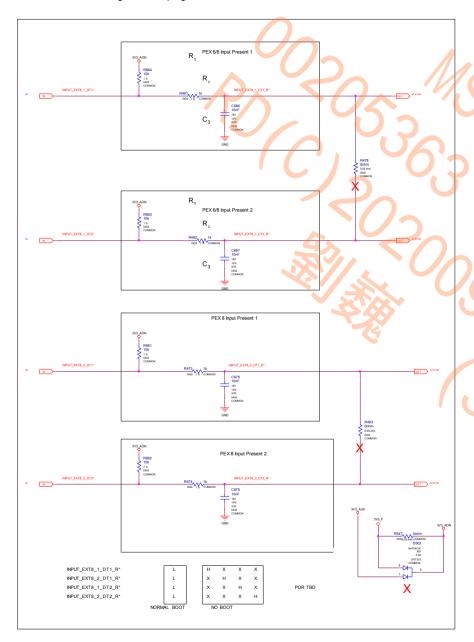
À		MICRO-STAR INT'L CO.,LTD							
MSI		MS-V389							
T		PS: INPUT SWITCH RTD3				Rev 1.0			
₹	Date: Wed	nesday, June 24, 2020	Sheet	64	of	76			

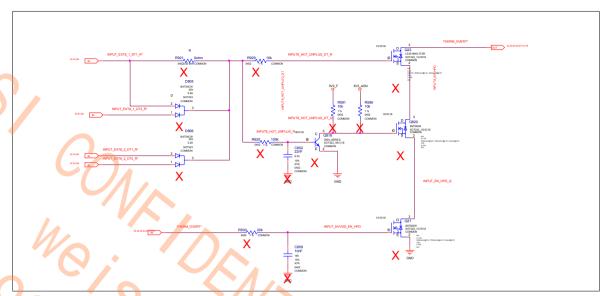


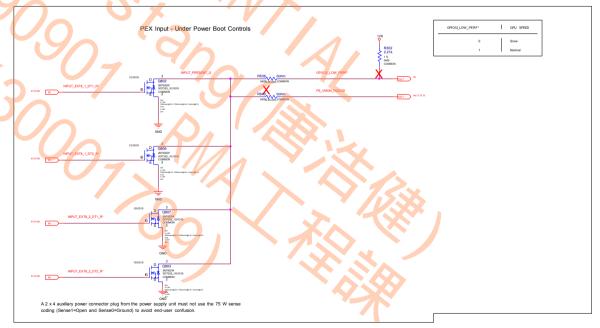
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MSI	MS-V389							
	Size Custom	Document Description BLANK	Rev 1.0					
	Date: Wed	nesday, June 24, 2020 Sheet 65 of	76					



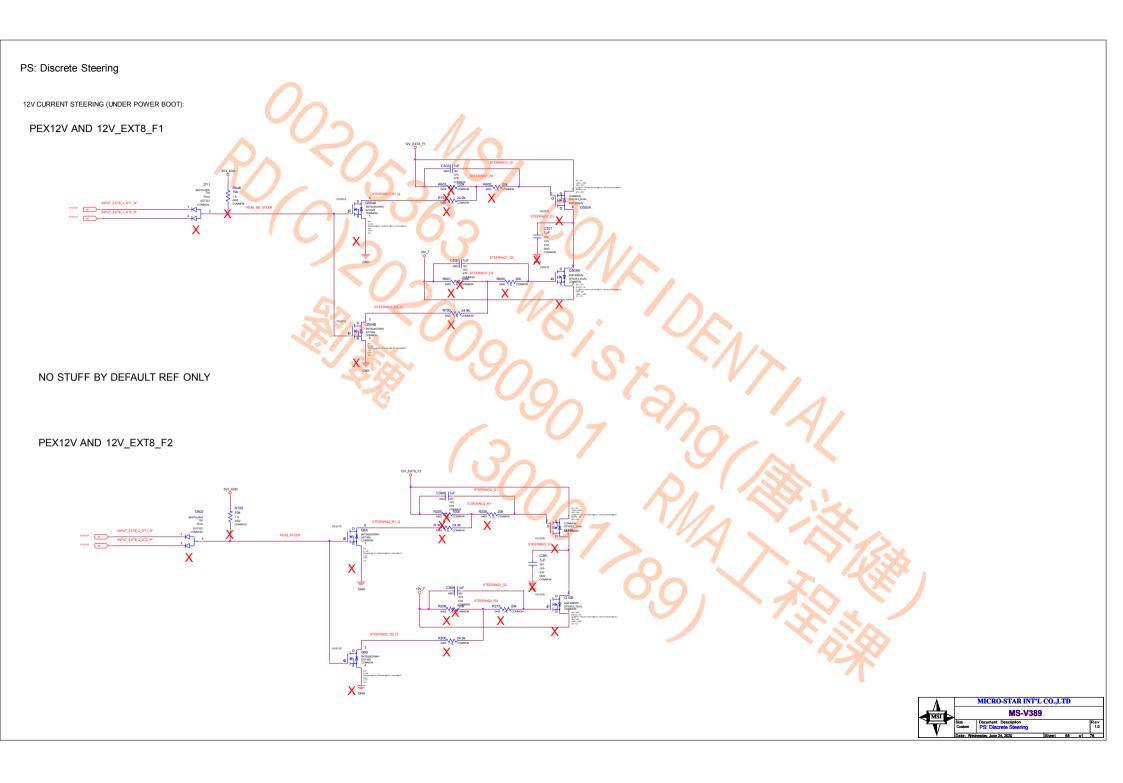
PS: 12V Current Steering & Hot Unplug Detect

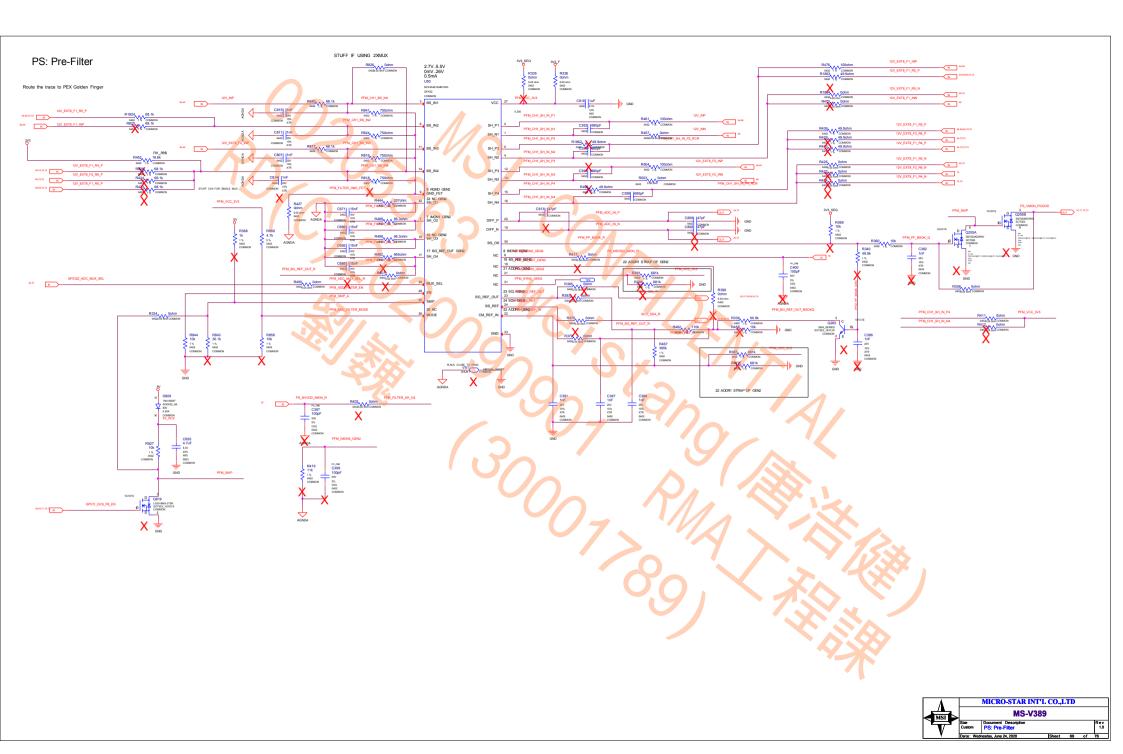


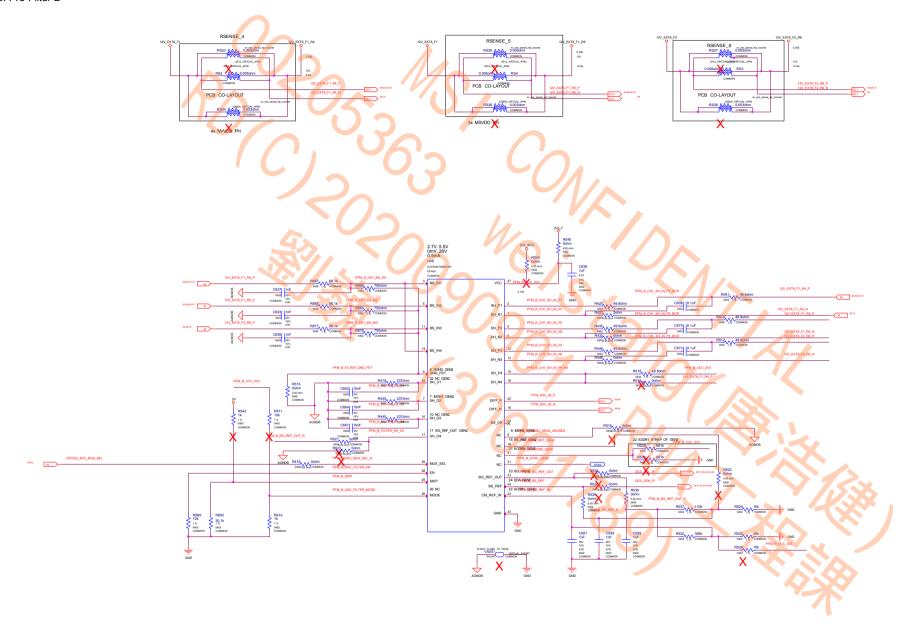




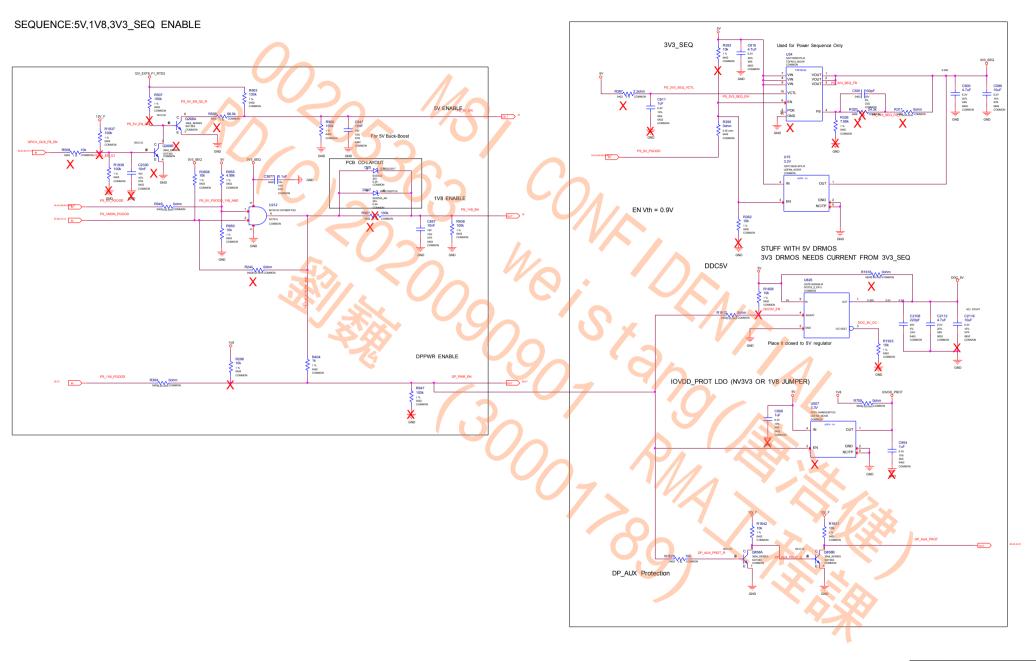






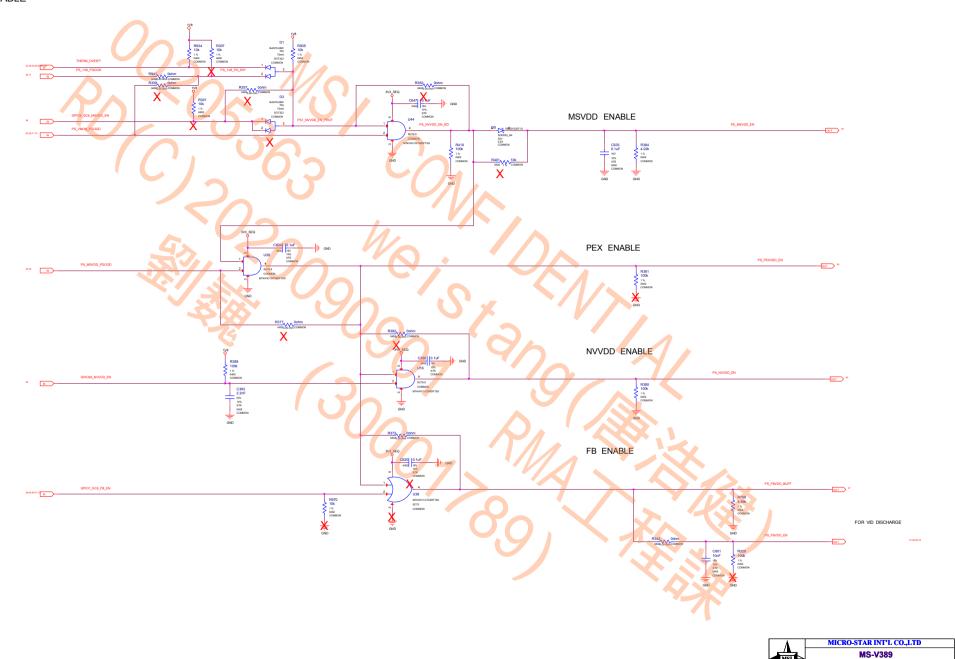


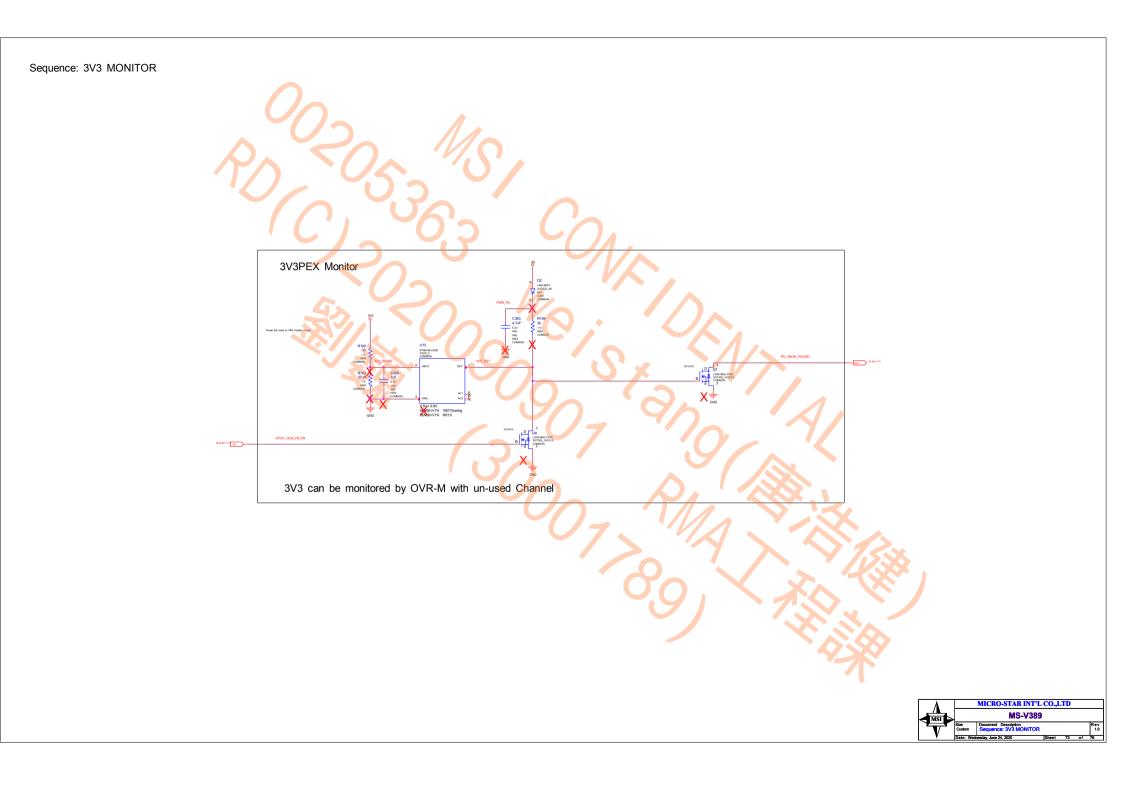


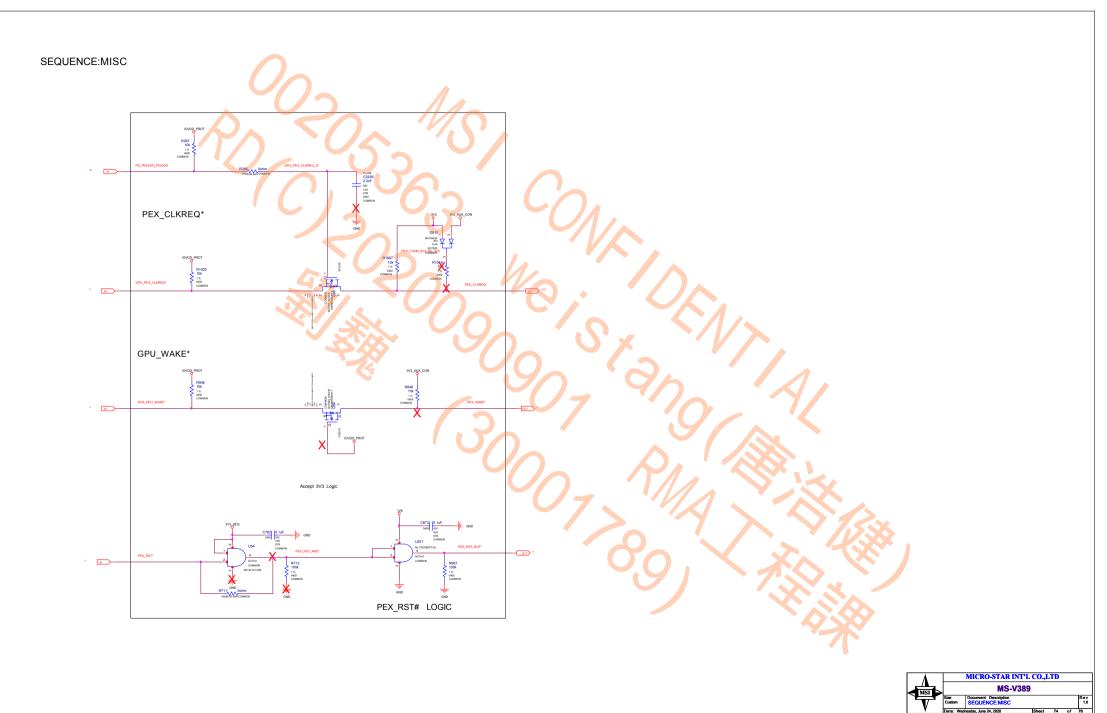




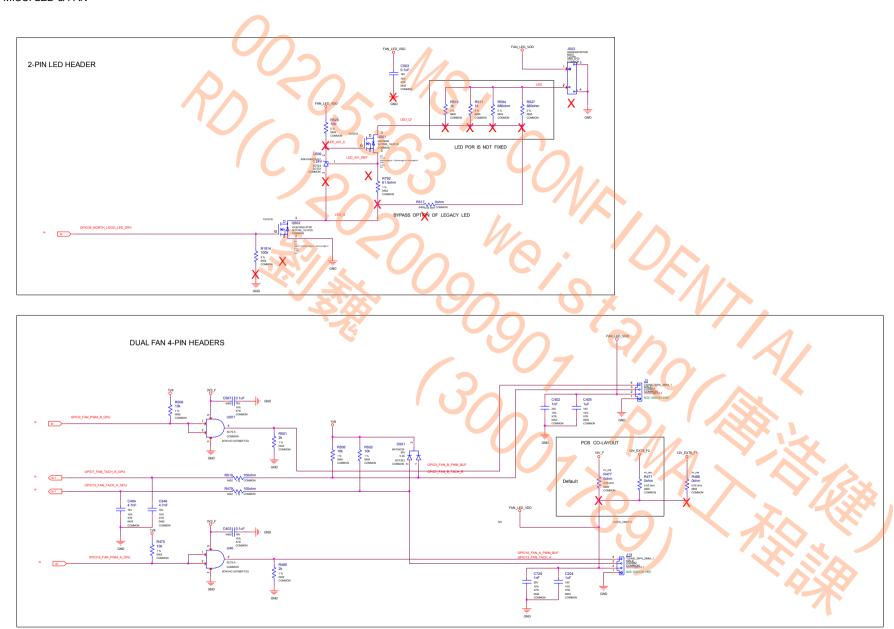
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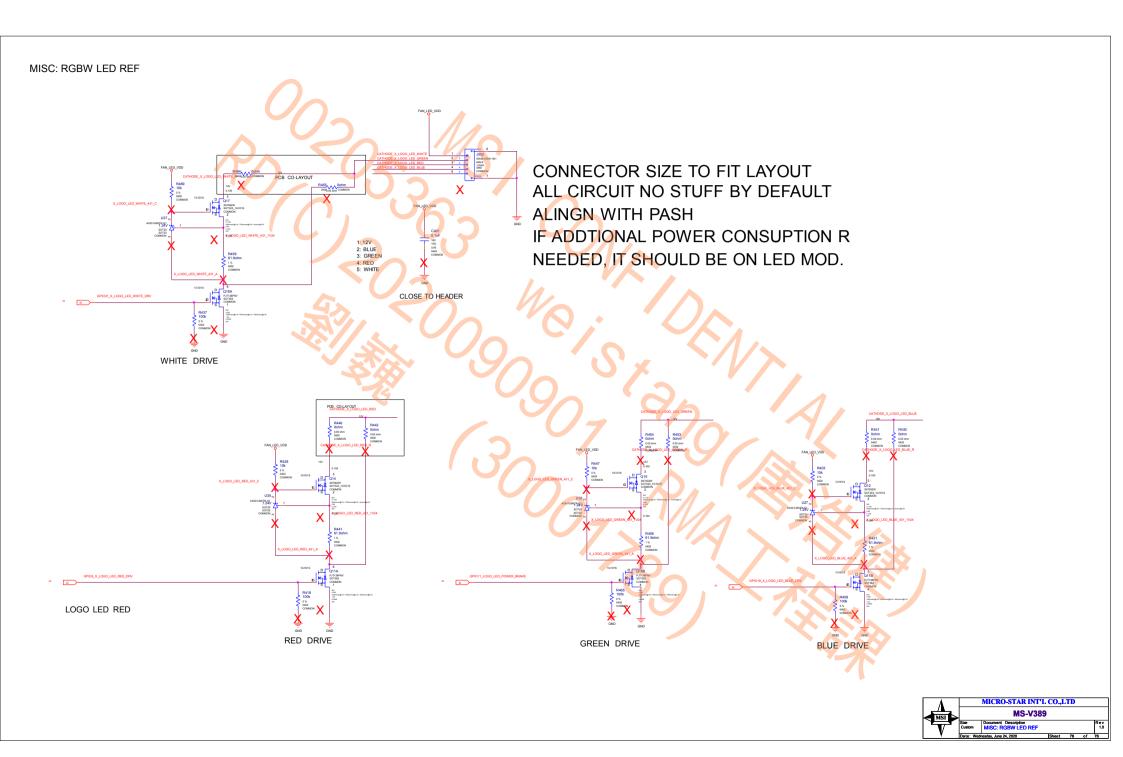


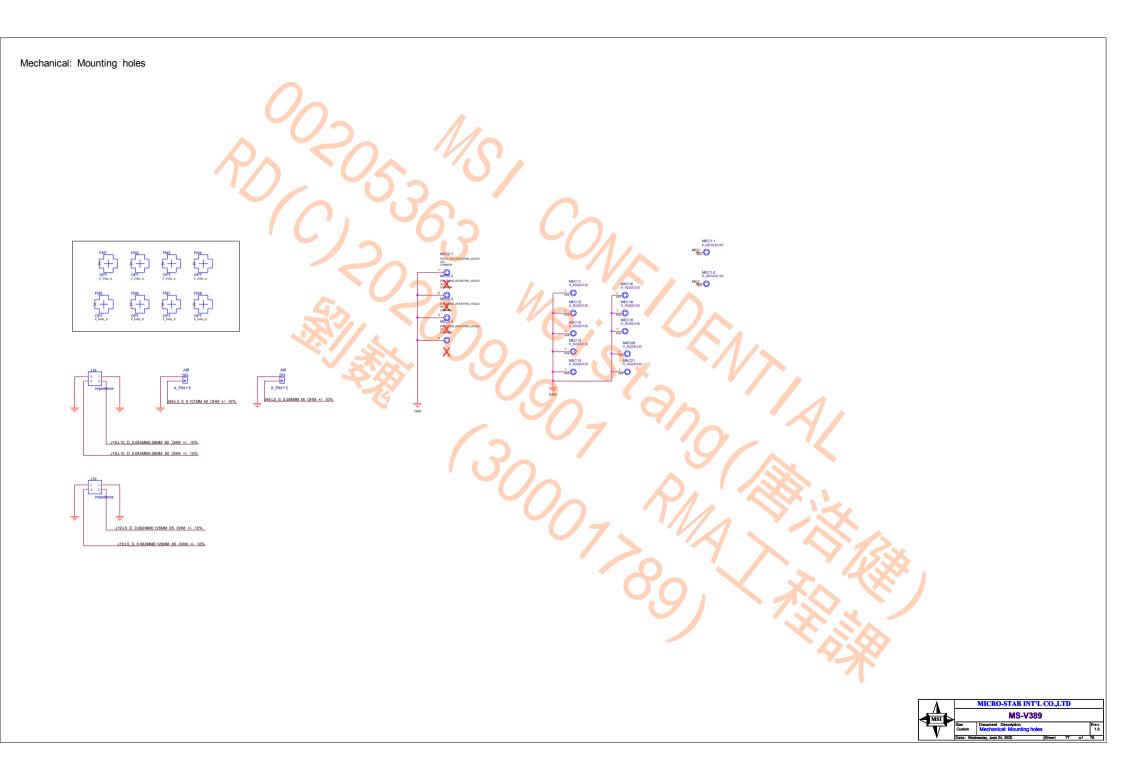


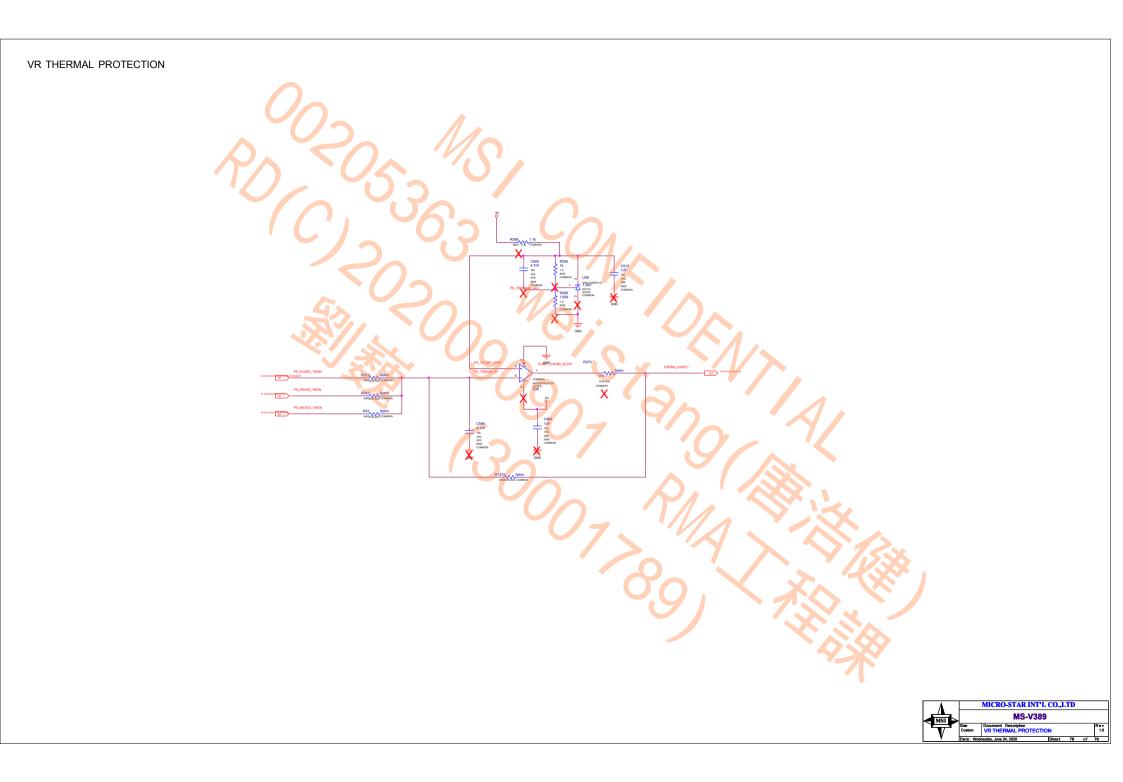
MISC: LED & FAN



Α		MICRO-STAR INT'L CO.,LTD						
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