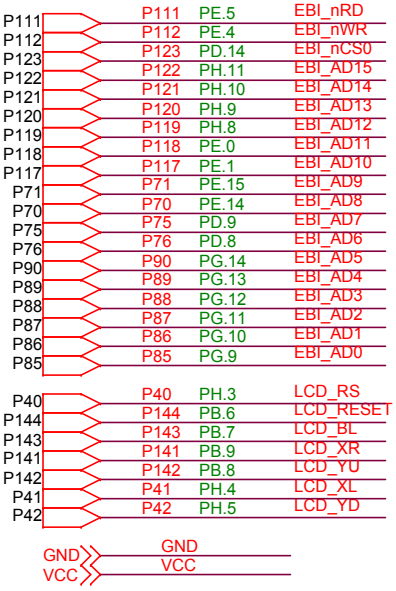
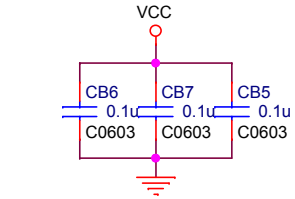
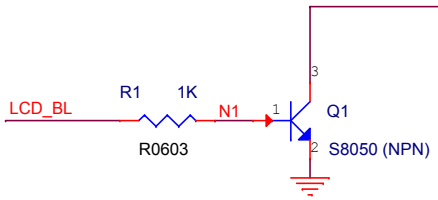
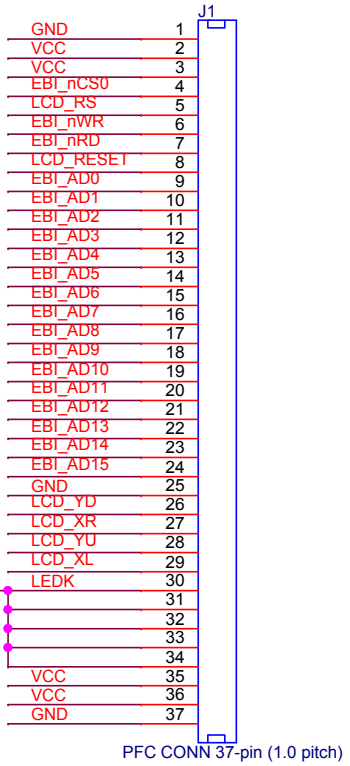
TFT LCD

TFT LCD Off-page









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Title: NuMaker M487 Advance (LV2)

Size	Document Number	Rev
A4	3.2" TFT LCD Module	V4.1

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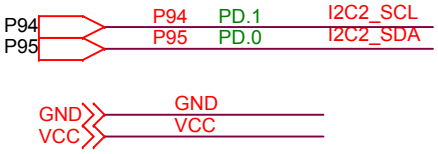
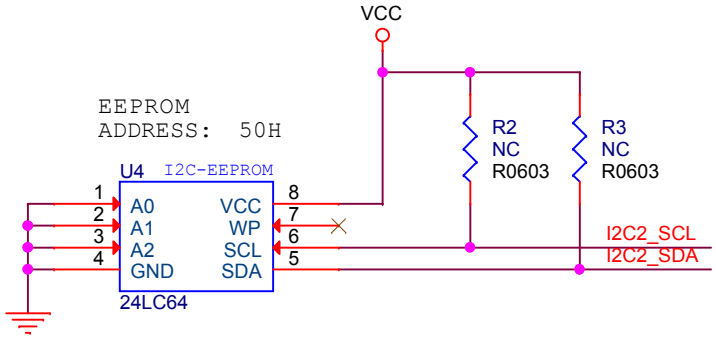
EEPROM Off-page

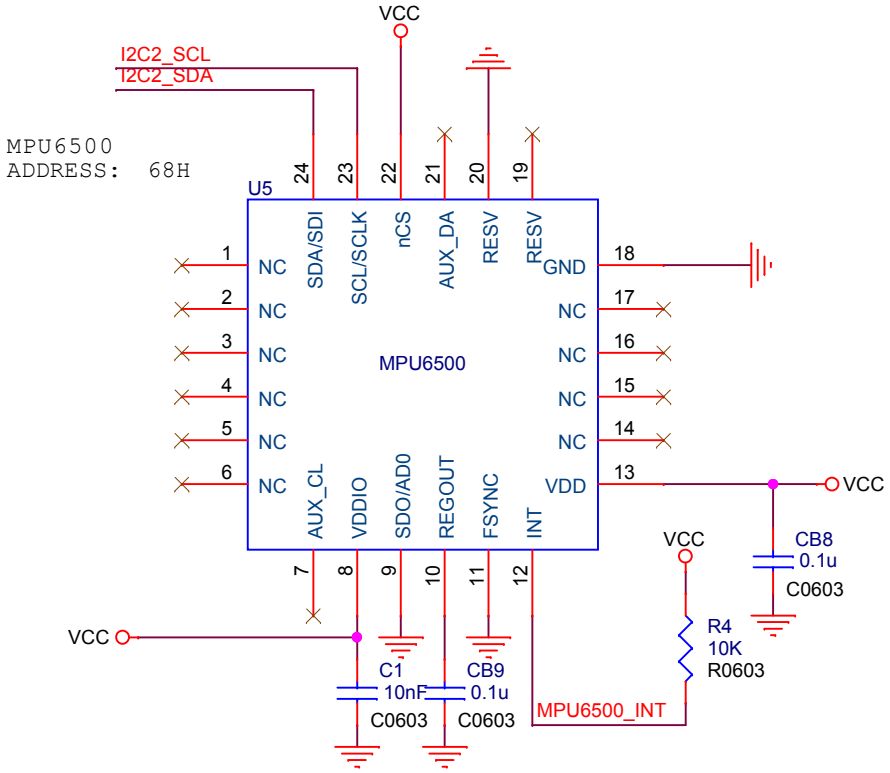


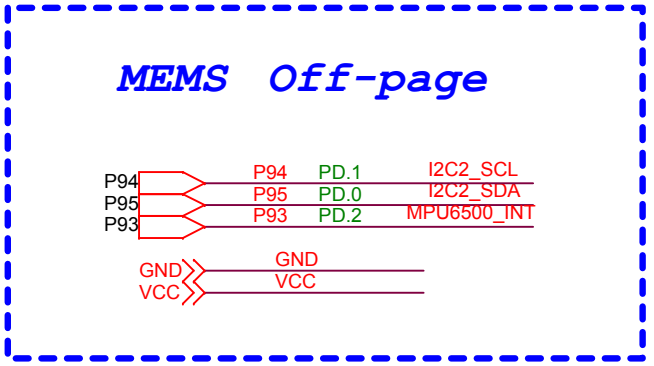


I2C EEPROM

Title: NuMaker M487 Advance (LV2)		
Size: A	Document Number: I2C EEPROM	Rev: V4.1
Date: Thursday, September 19, 2019	Sheet 3 of 8	

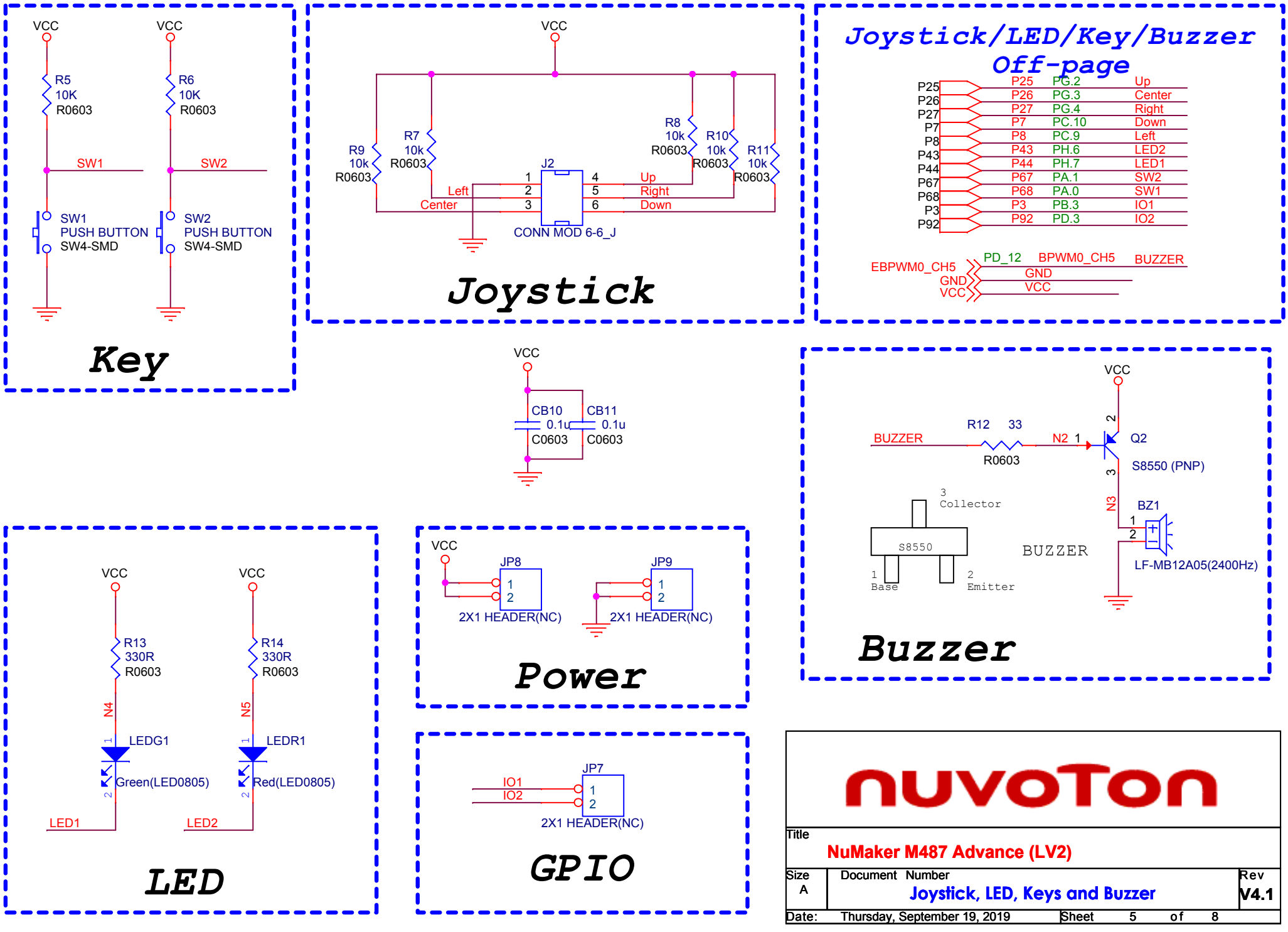
3-Axis ACC, 3-Axis Gyor





I2C MEMS

Title: NuMaker M487 Advance (LV2)		
Size: A	Document Number: MEMS (MPU6500)	Rev: V4.1
Date: Thursday, September 19, 2019	Sheet 4 of 8	


VCC
R5
10K
R0603
SW1
SW1
PUSH BUTTON
SW4-SMD
VCC
R6
10K
R0603
SW2
SW2
PUSH BUTTON
SW4-SMD
Key
VCC
R9
10k
R0603
R7
10k
R0603
R8
10k
R0603
R10
10k
R0603
R11
10k
R0603
J2
1
2
3
4
5
6
Left
Center
Up
Right
Down
CONN MOD 6-6_J
Joystick
Joystick/LED/Key/Buzzer
Off-page
P25
P26
P27
P7
P8
P43
P44
P67
P68
P3
P92
P25 PG.2 Up
P26 PG.3 Center
P27 PG.4 Right
P7 PC.10 Down
P8 PC.9 Left
P43 PH.6 LED2
P44 PH.7 LED1
P67 PA.1 SW2
P68 PA.0 SW1
P3 PB.3 IO1
P92 PD.3 IO2
EBPWM0_CH5
GND
VCC
PD_12 BPWM0_CH5 BUZZER
GND
VCC
VCC
CB10
0.1u
C0603
CB11
0.1u
C0603
VCC
BUZZER
R12 33
R0603
N2
1
2
3
Q2
S8550 (PNP)
3
Collector
S8550
1
Base
2
Emitter
N3
BZ1
1
2
BUZZER
LF-MB12A05(2400Hz)
Buzzer
VCC
R13
330R
R0603
N4
1
2
LEDG1
Green(LED0805)
LED1
VCC
R14
330R
R0603
N5
1
2
LEDR1
Red(LED0805)
LED2
LED
VCC
JP8
1
2
2X1 HEADER(NC)
JP9
1
2
2X1 HEADER(NC)
Power
JP7
IO1
IO2
1
2
2X1 HEADER(NC)
GPIO
nuvoTon
Title
NuMaker M487 Advance (LV2)
Size
A
Document Number
Joystick, LED, Keys and Buzzer
Rev
V4.1
Date:
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8

MCU CONNECTOR

JP1

P1	1	2	P2
P3	3	4	P4
P5	5	6	P6
P7	7	8	P8
P9	9	10	P10
P11	11	12	P12
P13	13	14	P14
P15	15	16	P16
P17	17	18	P18
P19	19	20	P20
P21	21	22	P22
P23	23	24	P24
P25	25	26	P26
P27	27	28	P28
P29	29	30	P30
P31	31	32	P32
P33	33	34	P34
P35	35	36	P36

HEADER 2.54 18X2 SMD (male)

JP2

P73	1	2	P74
P75	3	4	P76
P77	5	6	P78
P79	7	8	P80
P81	9	10	P82
P83	11	12	P84
P85	13	14	P86
P87	15	16	P88
P89	17	18	P90
P91	19	20	P92
P93	21	22	P94
P95	23	24	P96
P97	25	26	P98
P99	27	28	P100
P101	29	30	P102
P103	31	32	P104
P105	33	34	P106
P107	35	36	P108

HEADER 2.54 18X2 SMD (male)

JP3

P37	1	2	P38
P39	3	4	P40
P41	5	6	P42
P43	7	8	P44
P45	9	10	P46
P47	11	12	P48
P49	13	14	P50
P51	15	16	P52
P53	17	18	P54
P55	19	20	P56
P57	21	22	P58
P59	23	24	P60
P61	25	26	P62
P63	27	28	P64
P65	29	30	P66
P67	31	32	P68
P69	33	34	P70
P71	35	36	P72

HEADER 2.54 18X2 SMD (male)

JP4

P109	1	2	P110
P111	3	4	P112
P113	5	6	P114
P115	7	8	P116
P117	9	10	P118
P119	11	12	P120
P121	13	14	P122
P123	15	16	P124
P125	17	18	P126
P127	19	20	P128
P129	21	22	P130
P131	23	24	P132
P133	25	26	P134
P135	27	28	P136
P137	29	30	P138
P139	31	32	P140
P141	33	34	P142
P143	35	36	P144

HEADER 2.54 18X2 SMD (male)

SW3

P4	PB.2	EPWM0_CH3	PB_2
P9	PB.1	I2C1_SCL	PB_1
P10	PB.0	I2C1_SDA	PB_0
P14	PA.10		
P15	PA.9		
P16	PA.8		
P18	PD.12	BPWM0_CH5	PD_12
P19	PD.11		
P20	PD.10	INT7	PD_10
P133	PB.14	EADC0_CH14	PB_14

SWDIP10 (SMD, all ON)

Default: All ON

P1 ~ P36

P1	P1	PB.5	
P2	P2	PB.4	
P3	P3	PB.3	
P4	P4	PB.2	
P5	P5	PC.12	
P6	P6	PC.11	
P7	P7	PC.10	
P8	P8	PC.9	
P9	P9	PB.1	
P10	P10	PB.0	
P11	P11	VSS	GND
P12	P12	VDD	VCC
P13	P13	PA.11	
P14	P14	PA.10	
P15	P15	PA.9	
P16	P16	PA.8	
P17	P17	PC.13	
P18	P18	PD.12	
P19	P19	PD.11	
P20	P20	PD.10	
P21	P21	VSS	
P22	P22	VDD	
P23	P23	PG.0	
P24	P24	PG.1	
P25	P25	PG.2	
P26	P26	PG.3	
P27	P27	PG.4	
P28	P28	PF.11	
P29	P29	PF.10	
P30	P30	PF.9	
P31	P31	PF.8	
P32	P32	PF.7	
P33	P33	PF.6	
P34	P34	VBAT	
P35	P35	PF.5	
P36	P36	PF.4	

P73 ~ P108

P73	P73	PF.0	
P74	P74	PF.1	
P75	P75	PD.9	
P76	P76	PD.8	
P77	P77	PC.5	
P78	P78	PC.4	
P79	P79	PC.3	
P80	P80	PC.2	
P81	P81	PC.1	
P82	P82	PC.0	
P83	P83	VSS	GND
P84	P84	VDD	VCC
P85	P85	PG.9	
P86	P86	PG.10	
P87	P87	PG.11	
P88	P88	PG.12	
P89	P89	PG.13	
P90	P90	PG.14	
P91	P91	PG.15	
P92	P92	PD.3	
P93	P93	PD.2	
P94	P94	PD.1	
P95	P95	PD.0	
P96	P96	PD.13	
P97	P97	PA.12	
P98	P98	PA.13	
P99	P99	PA.14	
P100	P100	PA.15	
P101	P101	HSUSB_VRES	
P102	P102	HSUSB_VDD33	
P103	P103	HSUSB_VBUS	
P104	P104	HSUSB_D-	
P105	P105	HSUSB_VSS	
P106	P106	HSUSB_D+	
P107	P107	HSUSB_VDD12_CAP	
P108	P108	HSUSB_ID	

P37 ~ P72

P37	P37	PH.0	
P38	P38	PH.1	
P39	P39	PH.2	
P40	P40	PH.3	
P41	P41	PH.4	
P42	P42	PH.5	
P43	P43	PH.6	
P44	P44	PH.7	
P45	P45	PF.3	
P46	P46	PF.2	
P47	P47	VSS	GND
P48	P48	VDD	VCC
P49	P49	PE.8	
P50	P50	PE.9	
P51	P51	PE.10	
P52	P52	PE.11	
P53	P53	PE.12	
P54	P54	PE.13	
P55	P55	PC.8	
P56	P56	PC.7	
P57	P57	PC.6	
P58	P58	PA.7	
P59	P59	PA.6	
P60	P60	VSS	GND
P61	P61	VDD	VCC
P62	P62	LDO_CAP1	
P63	P63	PA.5	
P64	P64	PA.4	
P65	P65	PA.3	
P66	P66	PA.2	
P67	P67	PA.1	
P68	P68	PA.0	
P69	P69	VDDIO	
P70	P70	PE.14	
P71	P71	PE.15	
P72	P72	nRESET	

P109 ~ P144

P109	P109	PE.7	
P110	P110	PE.6	
P111	P111	PE.5	
P112	P112	PE.4	
P113	P113	PE.3	
P114	P114	PE.2	
P115	P115	VSS	GND
P116	P116	VDD	VCC
P117	P117	PE.1	
P118	P118	PE.0	
P119	P119	PH.8	
P120	P120	PH.9	
P121	P121	PH.10	
P122	P122	PH.11	
P123	P123	PD.14	
P124	P124	PG.5	
P125	P125	PG.6	
P126	P126	PG.7	
P127	P127	PG.8	
P128	P128	VSS	GND
P129	P129	LDO_CAP2	
P130	P130	VDD	VCC
P131	P131	PC.14	
P132	P132	PB.15	
P133	P133	PB.14	
P134	P134	PB.13	
P135	P135	PB.12	
P136	P136	AVDD	
P137	P137	VREF	
P138	P138	AVSS	ADAVSS
P139	P139	PB.11	
P140	P140	PB.10	
P141	P141	PB.9	
P142	P142	PB.8	
P143	P143	PB.7	
P144	P144	PB.6	

MCU Connector Off-page

EPWM0_CH3	PB_2	EPWM0_CH3
I2C1_SCL	PB_1	I2C1_SCL
I2C1_SDA	PB_0	I2C1_SDA
EBPWM0_CH5	PD_12	BPWM0_CH5
INT7	PD_10	INT7
EADC0_CH14	PB_14	EADC0_CH14
GND	GND	
VCC	VCC	

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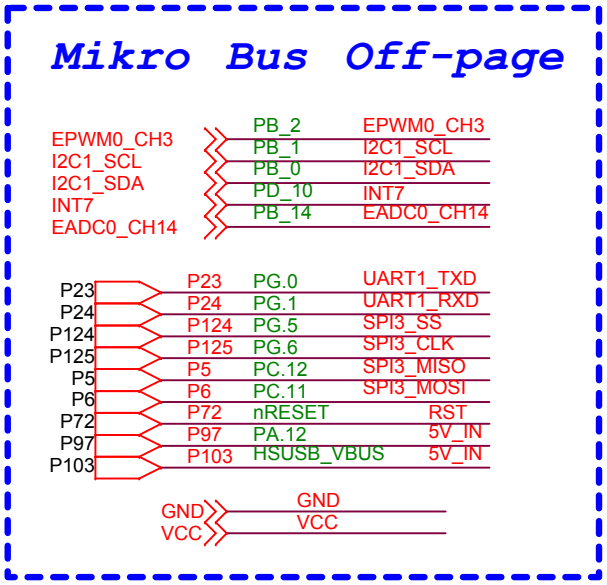
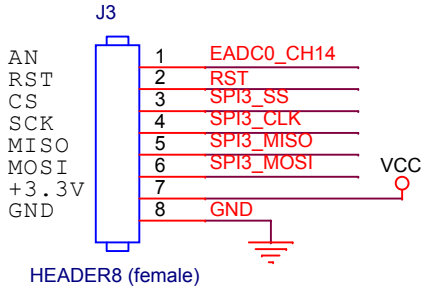
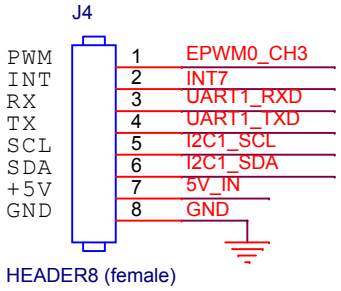
Title	NuMaker M487 Advance (LV2)
Size A4	Document Number: MCU Connectors
Rev	V4.2
Date: Friday, November 03, 2023	Sheet 6 of 8







Mikro Bus

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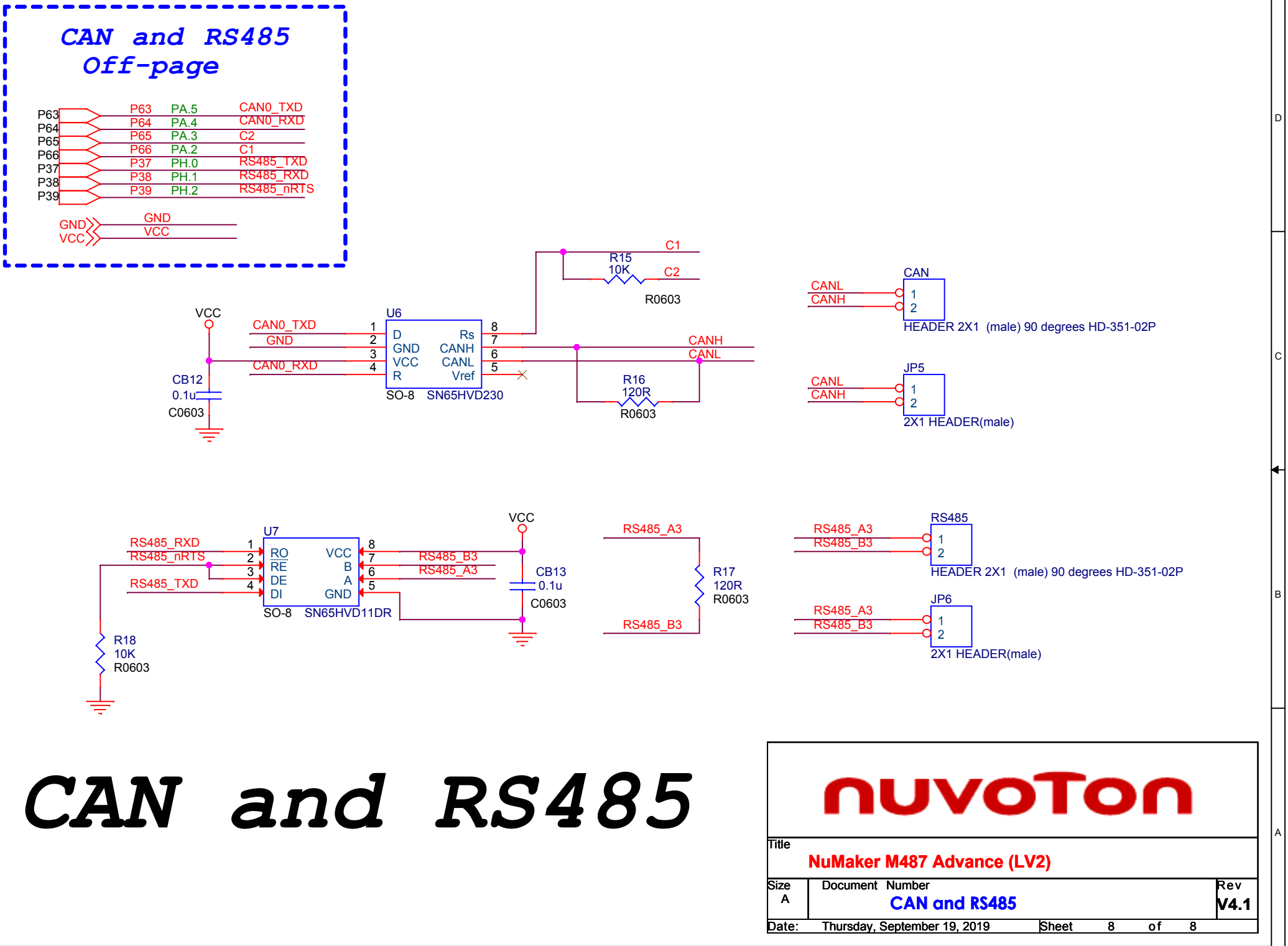
Title	NuMaker M487 Advance (LV2)	
Size A	Document Number Mikro Bus	Rev V4.1
Date: Thursday, September 19, 2019	Sheet 7 of 8	



CAN and RS485

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Title	NuMaker M487 Advance (LV2)	
Size A	Document Number CAN and RS485	Rev V4.1
Date: Thursday, September 19, 2019	Sheet 8 of 8	