FID1 FID2 FID3

PCB Number: TIDA-011019
PCB Rev: E1

LOGO1



CE Mark

Logo2
PCB
LOGO
Texas Instruments

Logo3
PCB
LOGO
FCC disclaimer

Logo4
PCB
LOGO
WEEE logo

Variant/Label Table

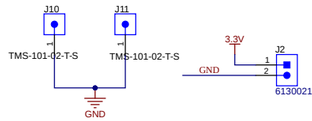
Variant	Label Text
001	CC1312+IPC and 3x LC-sensors
002	added SX1262+IPC

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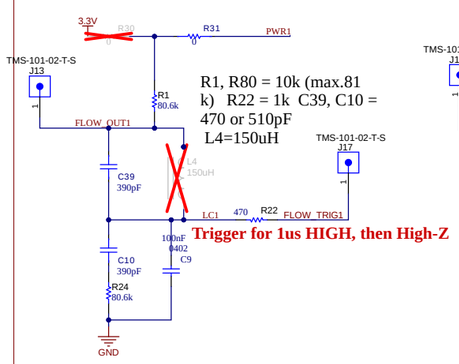
Orderable: shippable	Designed for: Public Release	Mod. Date: 5/9/2026
TID #: TIDA-011019	Project Title: WmBus-LoRa-WaterMeter	
Number: TIDA-011019 Rev: E1	Sheet Title: Hardware	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 1 of 5
Drawn By: TI	File: TIDA-011019_Hardware.SchDoc	Size: B
Engineer: a0797195	Contact: http://www.ti.com/support	

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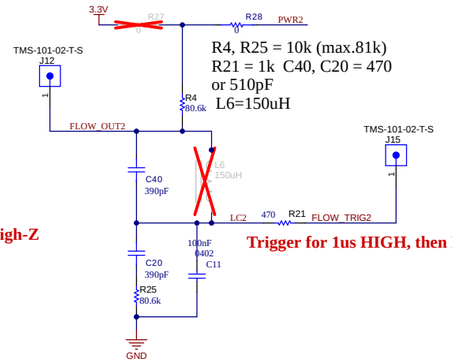


Inductive Sensing: 3 x LC-tanks



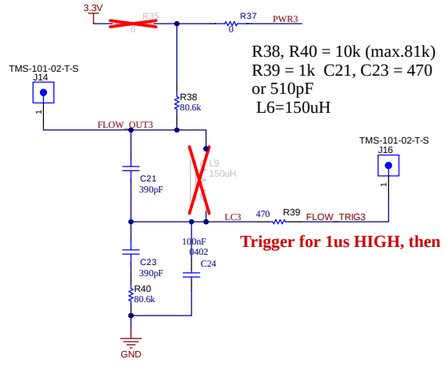
R1, R80 = 10k (max.81 k) R22 = 1k C39, C10 = 470 or 510pF L4=150uH

Trigger for 1us HIGH, then High-Z



R4, R25 = 10k (max.81k) R21 = 1k C40, C20 = 470 or 510pF L6=150uH

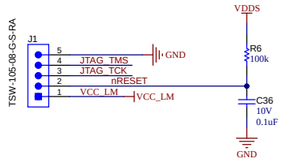
Trigger for 1us HIGH, then High-Z



R38, R40 = 10k (max.81k) R39 = 1k C21, C23 = 470 or 510pF L6=150uH

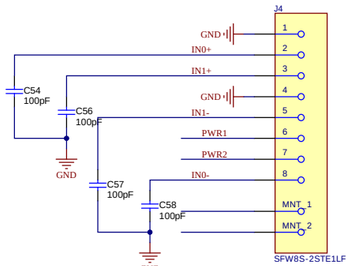
Trigger for 1us HIGH, then High-Z

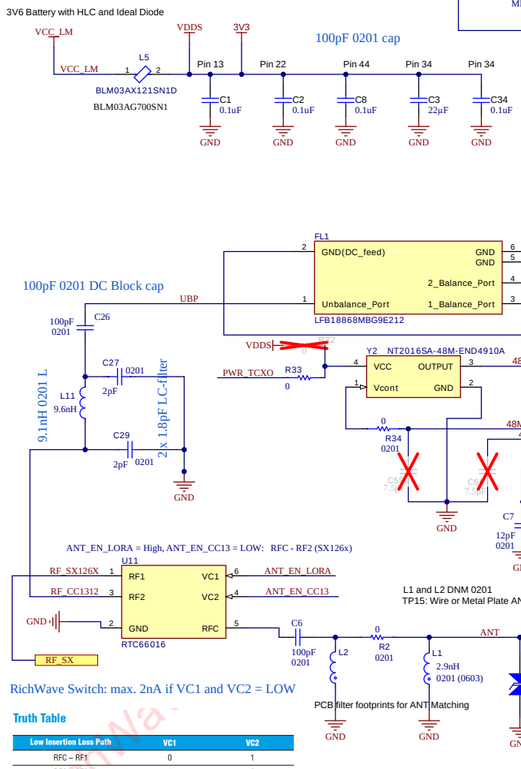
CC1312Rxy JTAG Programming connector

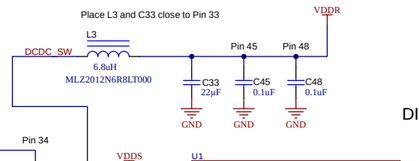


The 2-pin JTAG mode using
only TCK and TMS is the default configuration after power up

FlexPCB Conn for Hall Sensors







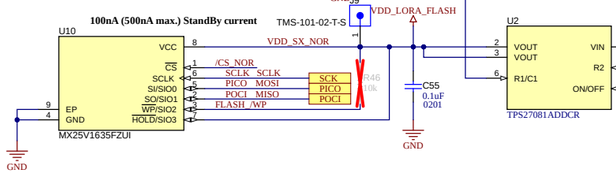
RichWave Switch: max. 2nA if VC1 and VC2 = LOW

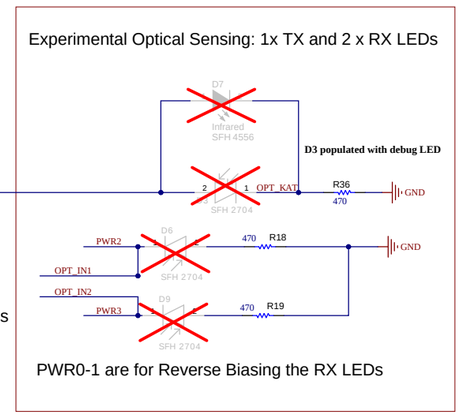
Truth Table

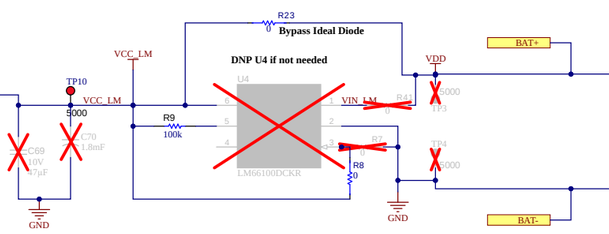
Low Insertion Loss Path	VC1	VC2
RFC – RF1	0	1
RFC – RF2	1	0

NOTE: "1" : 1.2 ~ 3.6 V, "0" : 0 ~ 0.4 V.

NOTE: Any operating mode other than described in this Table is not supported.







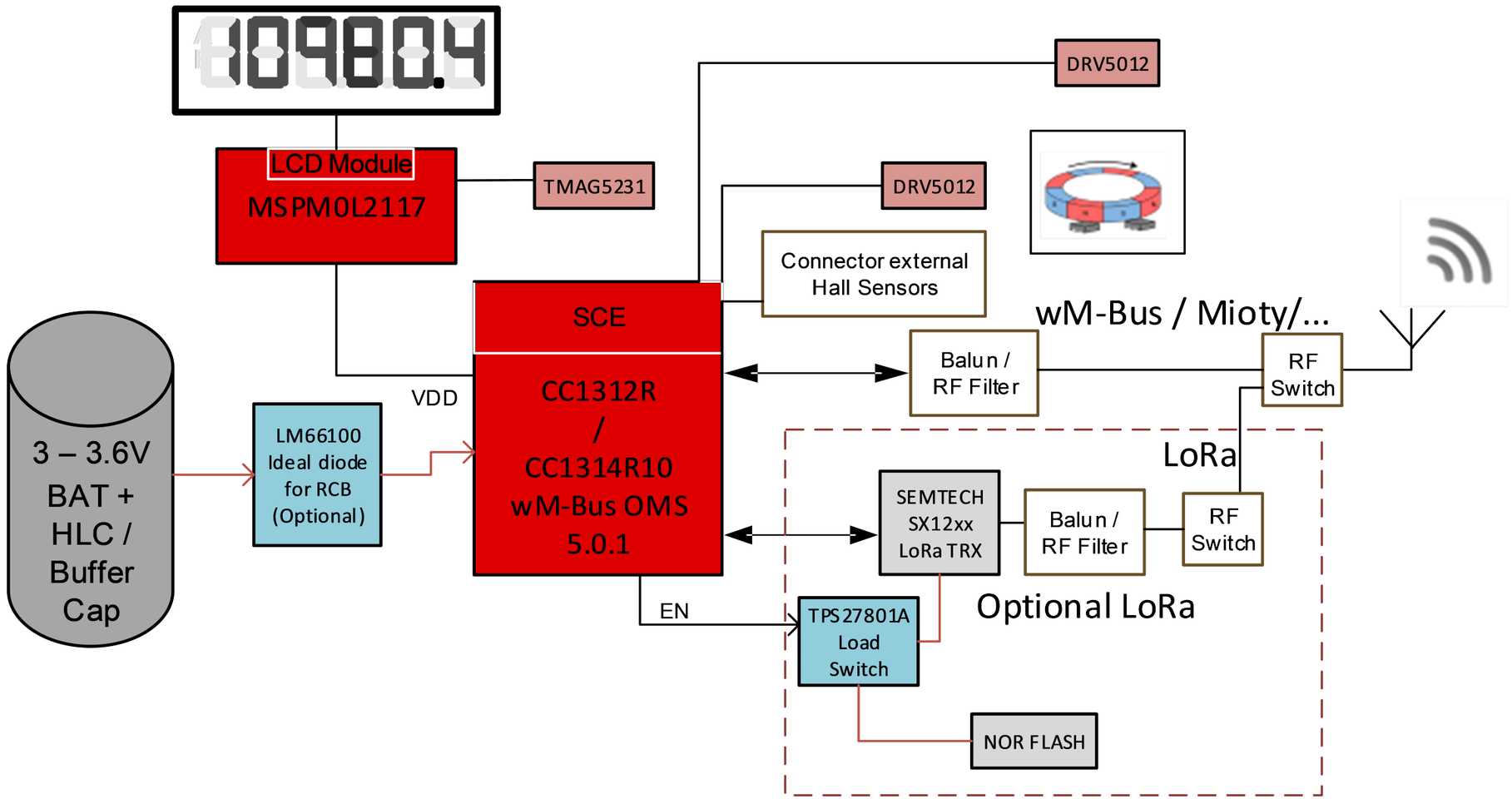
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Orderable: shippable	Designed for: Public Release	Mod. Date: 5/27/2026
TID #: TIDA-011019	Project Title: WmBus-LoRa-WaterMeter	
Number: TIDA-011019 Rev: E1	Sheet Title: CC1312_Sensor_Sub1G	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet 2 of 5
Drawn By:*	File: TIDA-011019_CC1312_RotarySensing.SchDoc	Size: A2
Engineer: a0797195	Contact: http://www.ti.com/support	http://www.ti.com

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Revision History				
Rev	ECN #	Approved Date	Approved by	Notes
	N/A	N/A	N/A	N/A

Smart Water Meter with wM-Bus and LoRa @ 868MHz



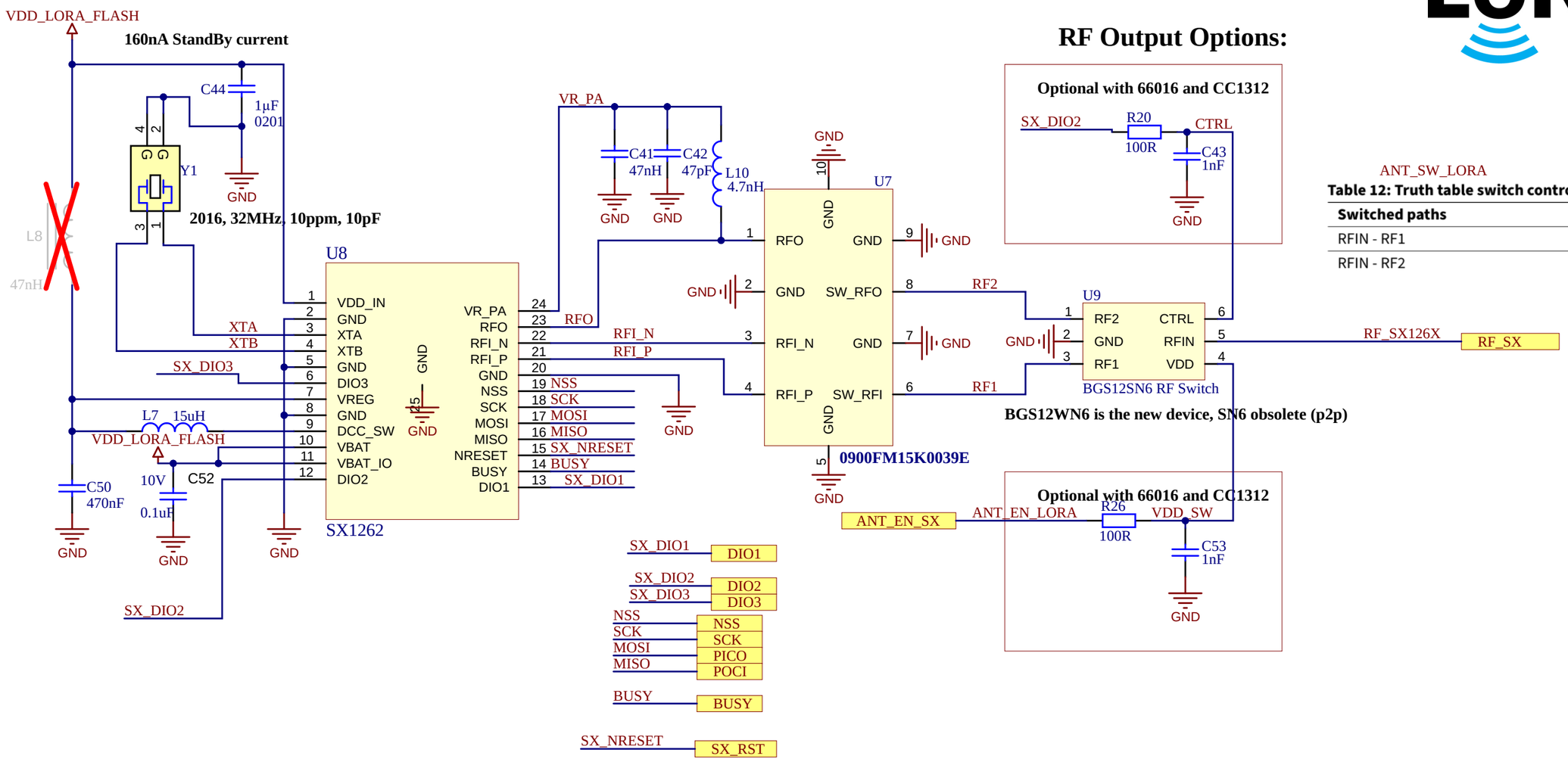
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Orderable: shippable	Designed for: Public Release	Mod. Date: 5/4/2026
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Number: TIDA-011019 Rev: E1	Sheet Title:	
SVN Rev: Not in version control	Assembly Variant: 001	Sheet: 3 of 5
Drawn By:	File: TIDA-011019_BlockDia.SchDoc	Size: B
Engineer: a0797195	Contact: http://www.ti.com/support	

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SX1262 mbed shield with Johanson IPD filter @868/915MHz (dual-band):



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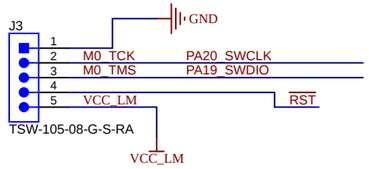
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Number: TIDA-011019	Rev: E1	Sheet Title: SX1262 LoRa Radio	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 4 of 5
Drawn By: MGS		File: TIDA-011019_SX126X_IPD_LORA.SchDoc	Size: A4
Engineer: a0797195		Contact: http://www.ti.com/support	

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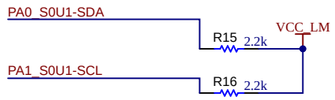
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MSPM0L211x JTAG Programming connector

The 2-pin JTAG mode using
only TCK and TMS is the default configuration after power up

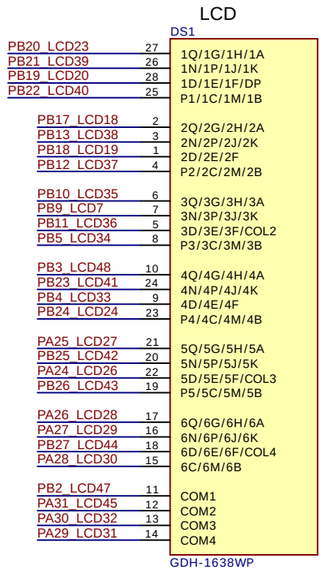


3.3V Pullup for Open-Drain IOs



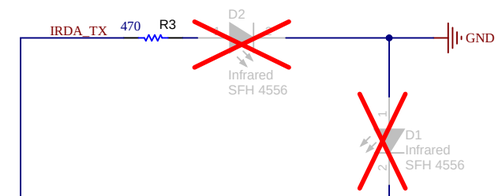
LCD pinout

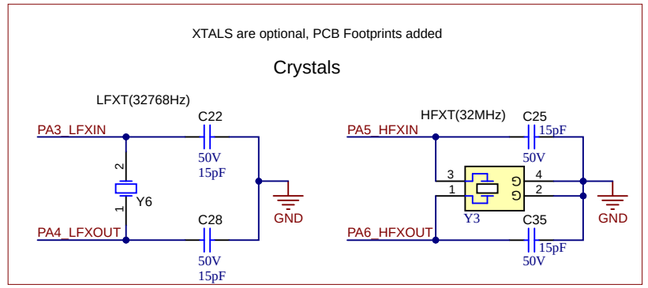
2 x 14-pin 100mil 4-MUX LCD

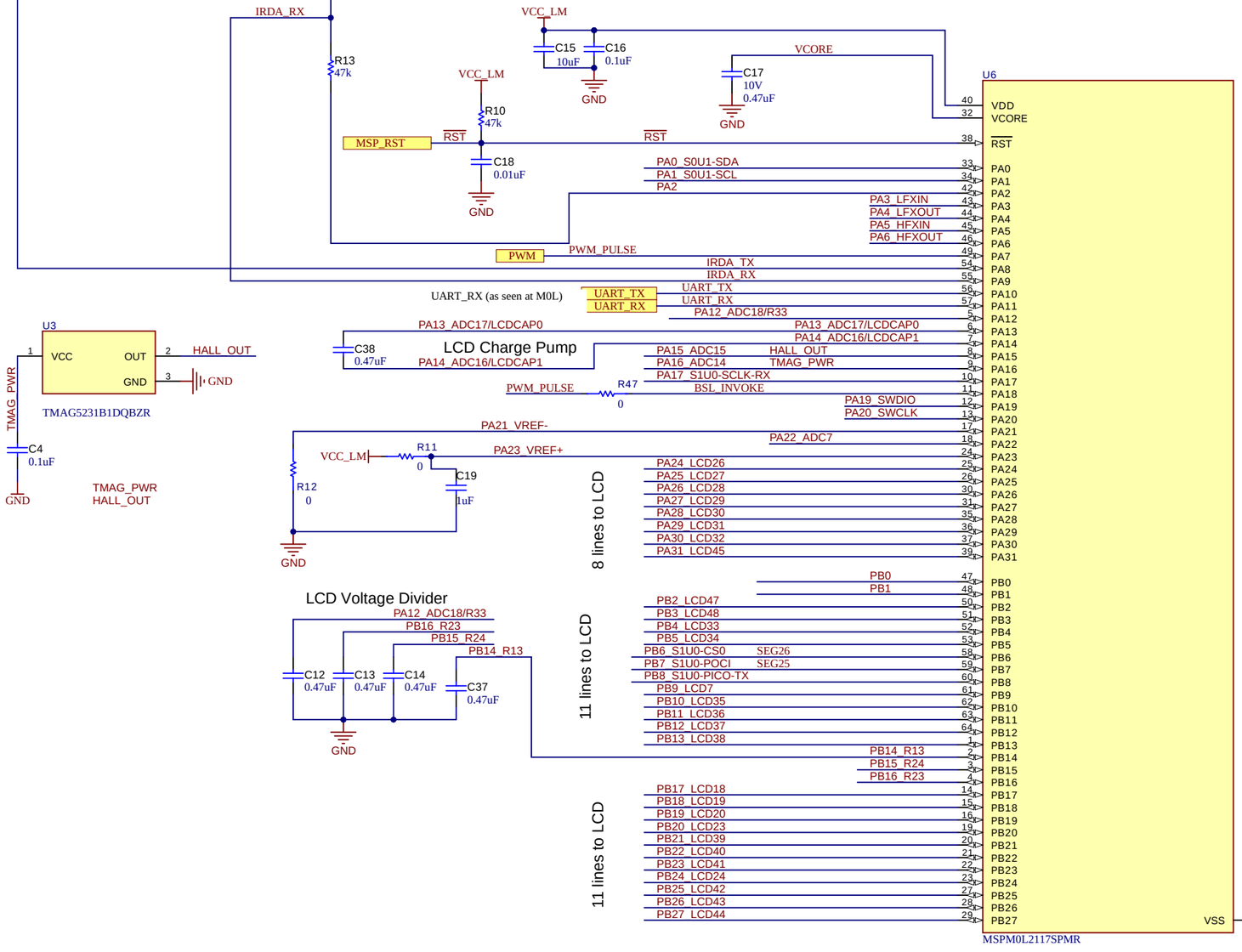


2 more SEG lines for 2x15 4-MUX LCD place 100mil next to LCD









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Orderable: shippable		Designed for: Public Release	Mod. Date: 5/27/2026
TID #: TIDA-011019		Project Title: WmBus-LoRa-WaterMeter	
Number: TIDA-011019	Rev: E1	Sheet Title: MSPM0L2117	
SVN Rev: Not in version control		Assembly Variant: 001	Sheet: 5 of 5
Drawn By: MGS		File: TIDA-011019-M0L_LCD.SchDoc	Size: A3
Engineer: a0797195		Contact: http://www.ti.com/support	http://www.ti.com

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