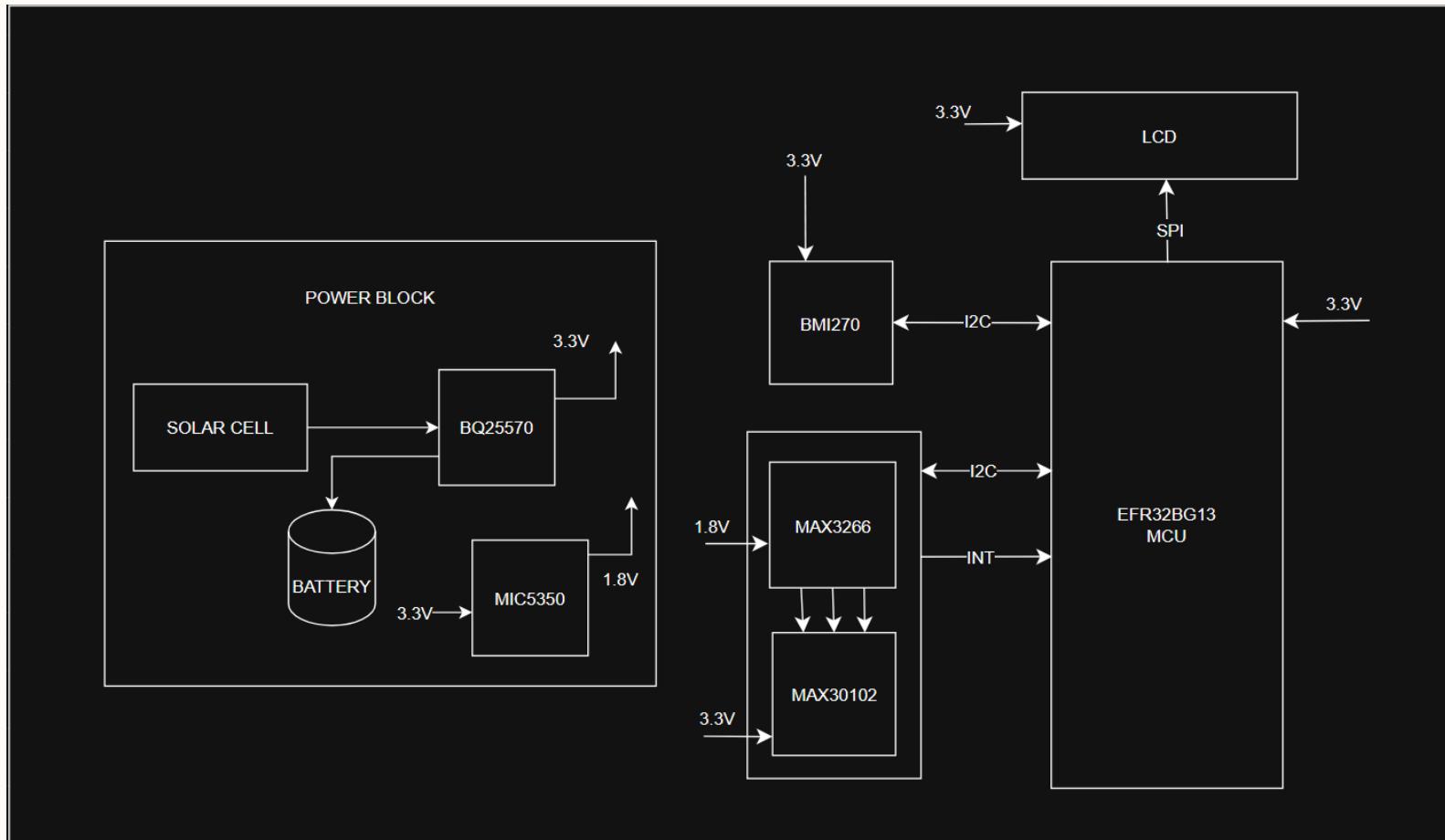


BLOCK DIAGRAM



Title BLOCK DIAGRAM		
Size A4	Number 1	Revision 1
Date: 10/26/2025		Sheet of 1
File: C:\Users\...\BLOCK DIAGRAM.SchDoc		Drawn By: Induja/Karthik

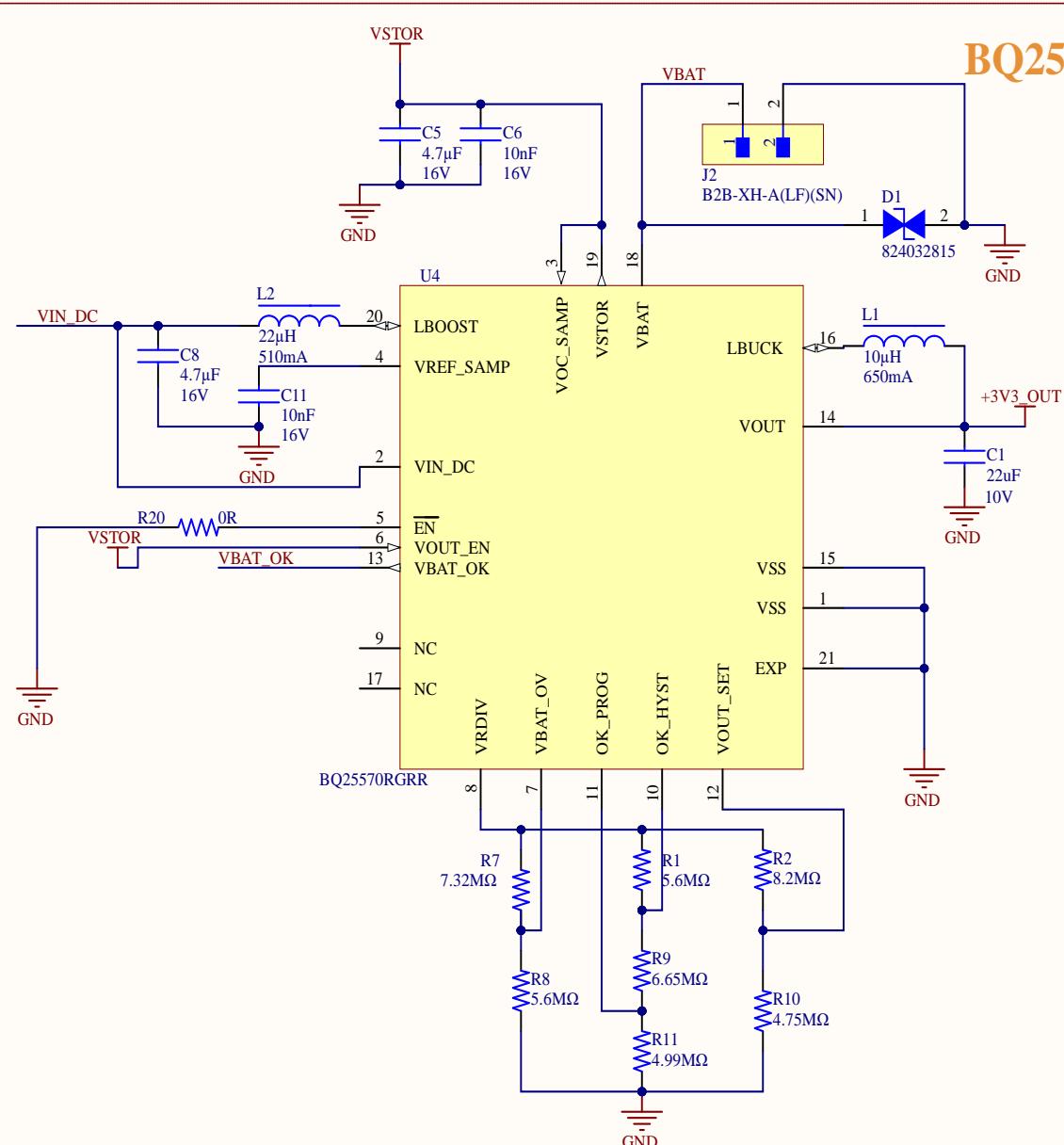
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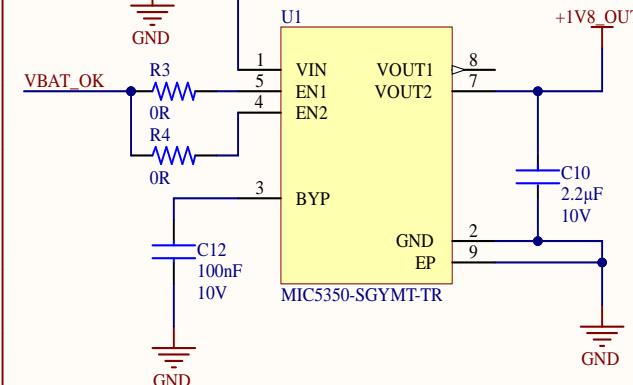
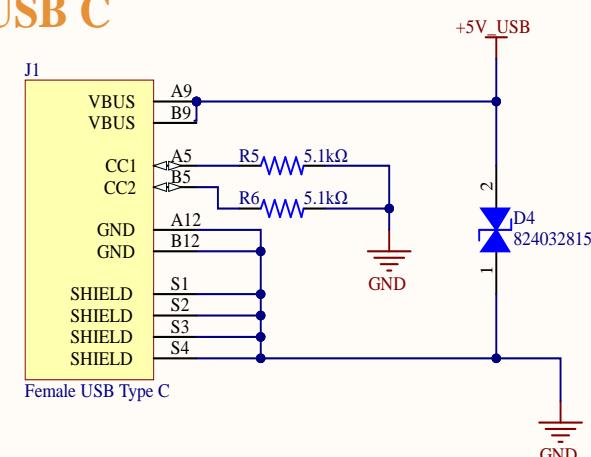
3

4

VSTOR

BQ25570

+3V3_OUT

MIC5350**USB C****TEST POINTS****POWER BLOCK**

Title			
POWER BLOCK			
Size	Number	Revision	
A	2	1	
Date:	10/26/2025	Sheet of	
File:	C:\Users.\POWER_BLOCK.SchDoc	Drawn By:	Induja N/Karthik R

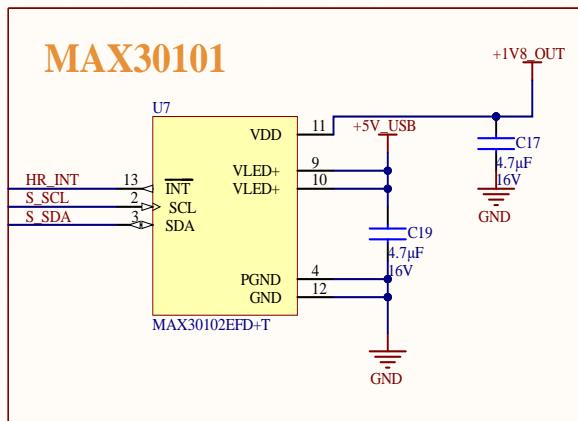
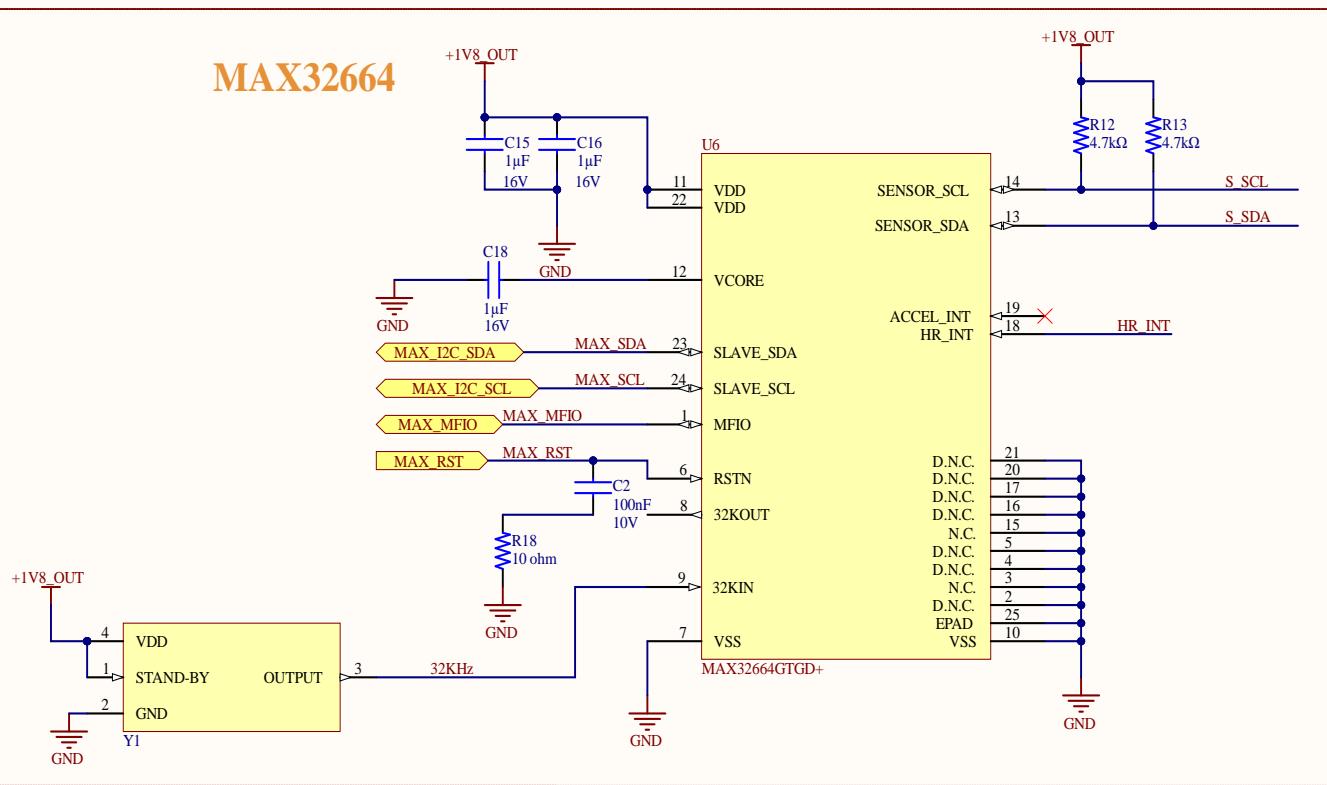
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2

3

4

HEART RATE SENSOR

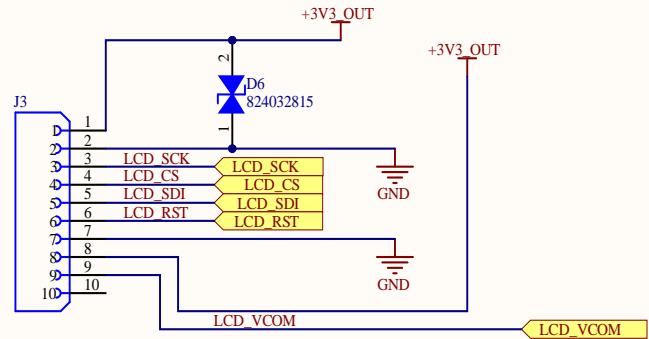


TEST POINTS

- 32KHz
TP13
 - S_SCL
TP14
 - S_SDA
TP15
 - MAX_RST
TP16
 - MAX_MFIO
TP17
 - HR_INT
TP5

Title		HEART RATE SENSOR	
Size	Number	Revision	
A4	3		1
Date:	10/26/2025	Sheet of	
File:	C:\Users...\HEART RATE.SchDoc	Drawn By:	Induia N/Karthik R

LCD CONNECTOR



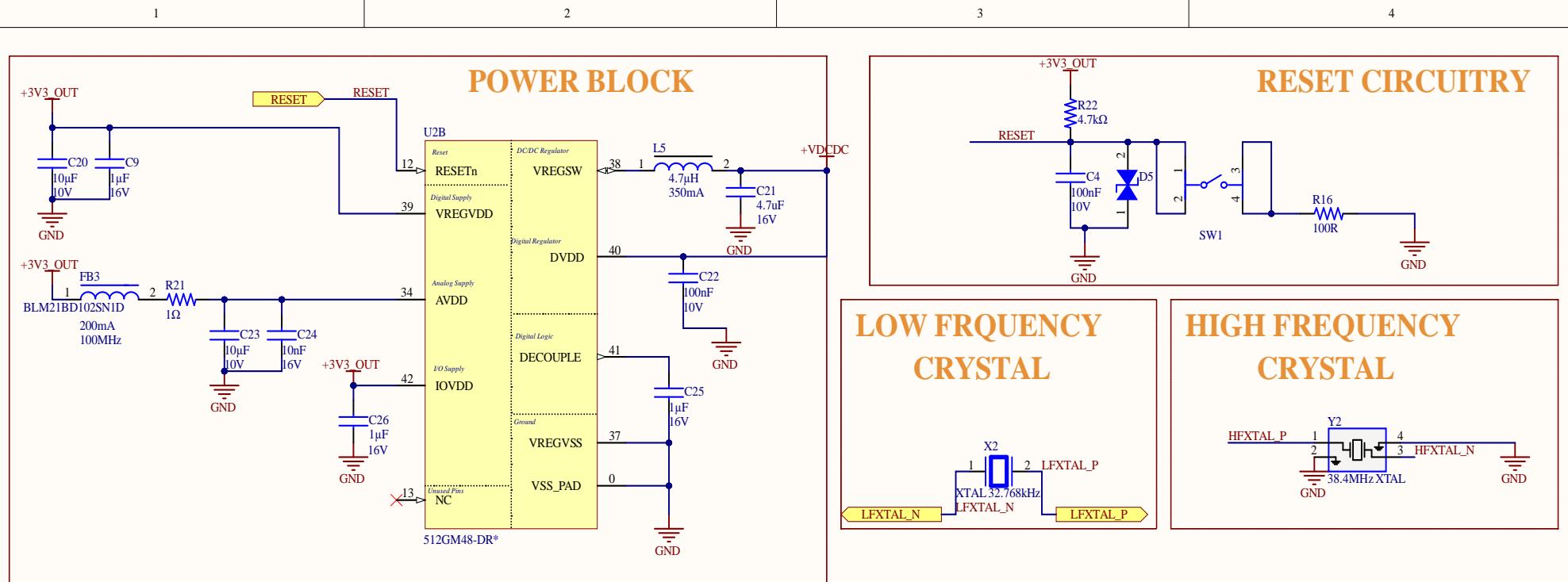
RST = "L": Display ON

RST = "H": Display OFF (Black display keeping pixel memory)

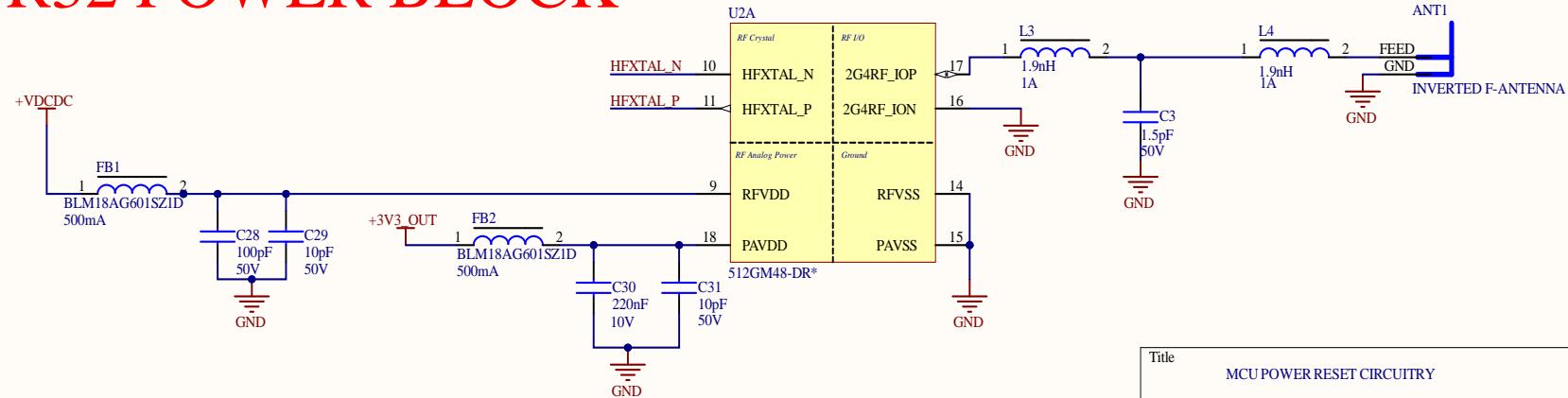
VCOM = "L" is necessary when RST = "H"

(When VCOM="H", Display does not turn to black, and current consumption increases by shoot-through-current in panel. (several mA)

Title		
LCD		
Size	Number	Revision
A4	4	1
Date:	10/26/2025	Sheet of
File:	C:\Users\.\LCD.SchDoc	Drawn By: Induja N/Karthik R



EFR32 POWER BLOCK



Title			
Size		Number	Revision
A4		5	1
Date:	10/26/2025	Sheet of	
File:	C:\Users\Induja N\Karthik R\EFR32G13_POWER_RESET.Sch	Drawn By:	Induja N/Karthik R

PERIPHERAL INTERCONNECTIONS

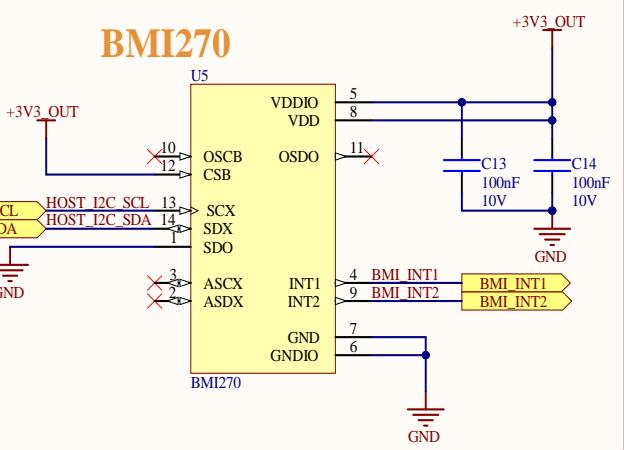
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2

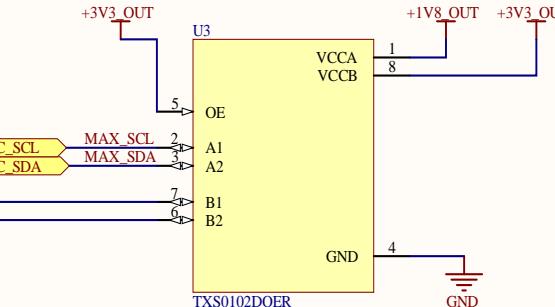
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4

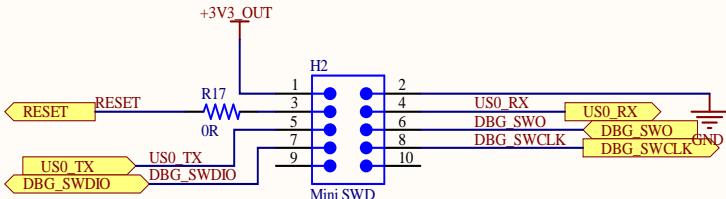
BMI270



LEVEL SHIFTER



DEBUG CONNECTOR



TEST POINTS

HOST_I2C_SDA TP7
HOST_I2C_SCL TP8
MAX_SCL
HOST_I2C_SCL TP9
MAX_SDA TP11

A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R	S	T	U	V	W	X	Y
Exact vs VBIAS 1.21V																								
Comparitor threshold voltages indicating when VSTOR has risen above VBAT_OK_HYST or fallen below VBAT_OK.																								
Desired	RSUM	1.19	MΩ																					
Desired	VBAT_OK	1.19	V																					
Desired	VBAT_OV	1.19	V																					
Computed	ROV1	3.633	MΩ																					
Computed	ROV2	3.633	MΩ																					
Computed	ROV3	3.633	MΩ																					
Computed	VBAT_OV	4.179	V																					
Computed	VBAT_OK	4.179	V																					
Computed	VBAT_OV_HYST	4.235	V																					
Selected	ROV1	3.633	MΩ																					
Selected	ROV2	3.633	MΩ																					
Selected	ROV3	3.633	MΩ																					
Typ voltage ¹	VBAT_OV(typ)	4.179	V	-0.50	% diff																			
Typ voltage ¹	VBAT_OK(typ)	4.179	V	-0.50	% diff																			
	VBAT_OV_HYST(typ)	4.179	V	0.74	% diff																			
For the bq25570 only, comparitor threshold for VOUT < VBAT_OV.																								
Maximum power point threshold, e.g. -0.7-0.8 of solar panel's open circuit voltage.																								
MPPT																								
ROV1	VIN_DCOK	1	V																					
ROV2	VREF_SAMP	0.9	V																					
ROV3	VOUT	3.1	V																					
Closed 1% resistor																								
ROV1	ROV1	3.633	MΩ																					
ROV2	ROV2	3.633	MΩ																					
ROV3	ROV3	3.633	MΩ																					
Closed 1% resistor																								
ROV1	ROV1	3.633	MΩ																					
ROV2	ROV2	3.633	MΩ																					
ROV3	ROV3	3.633	MΩ																					
Closed 1% resistor																								
ROV1	ROV1	3.633	MΩ																					
ROV2	ROV2	3.633	MΩ																					
ROV3	ROV3	3.633	MΩ																					
Closed 1% resistor																								
If the available 1% resistors for the recommend resistor total (RSUM) produce too high of a difference, try using the closest 1% > and < resistor cross combo OR increase or decrease the value of the 1% resistor.																								

1 H3

Title

PERIPHERAL INTERCONNECTS

Size

A4

Number

6

Revision

1

Date:

10/26/2025

Sheet of

File:

C:\Users\...\COMMUNICATION.SchDoc

Drawn By:

Induja N/Karthik R

1

2

3

4

MCU INTERCONNECTS

A

A

B

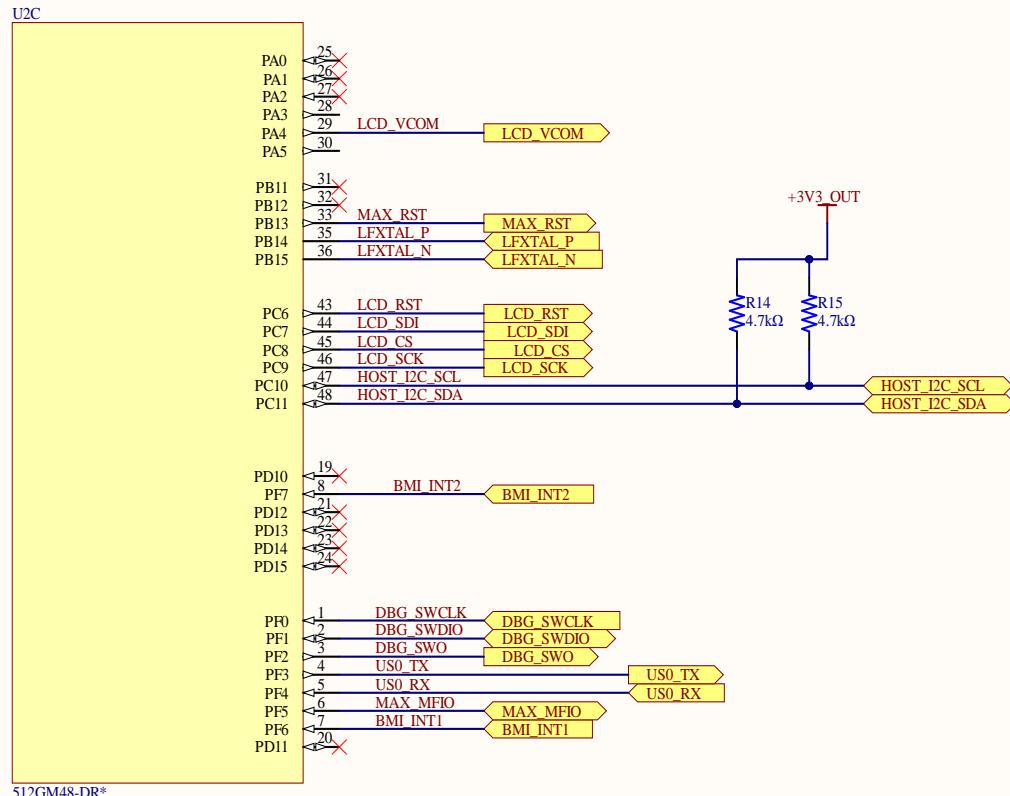
B

C

C

D

D



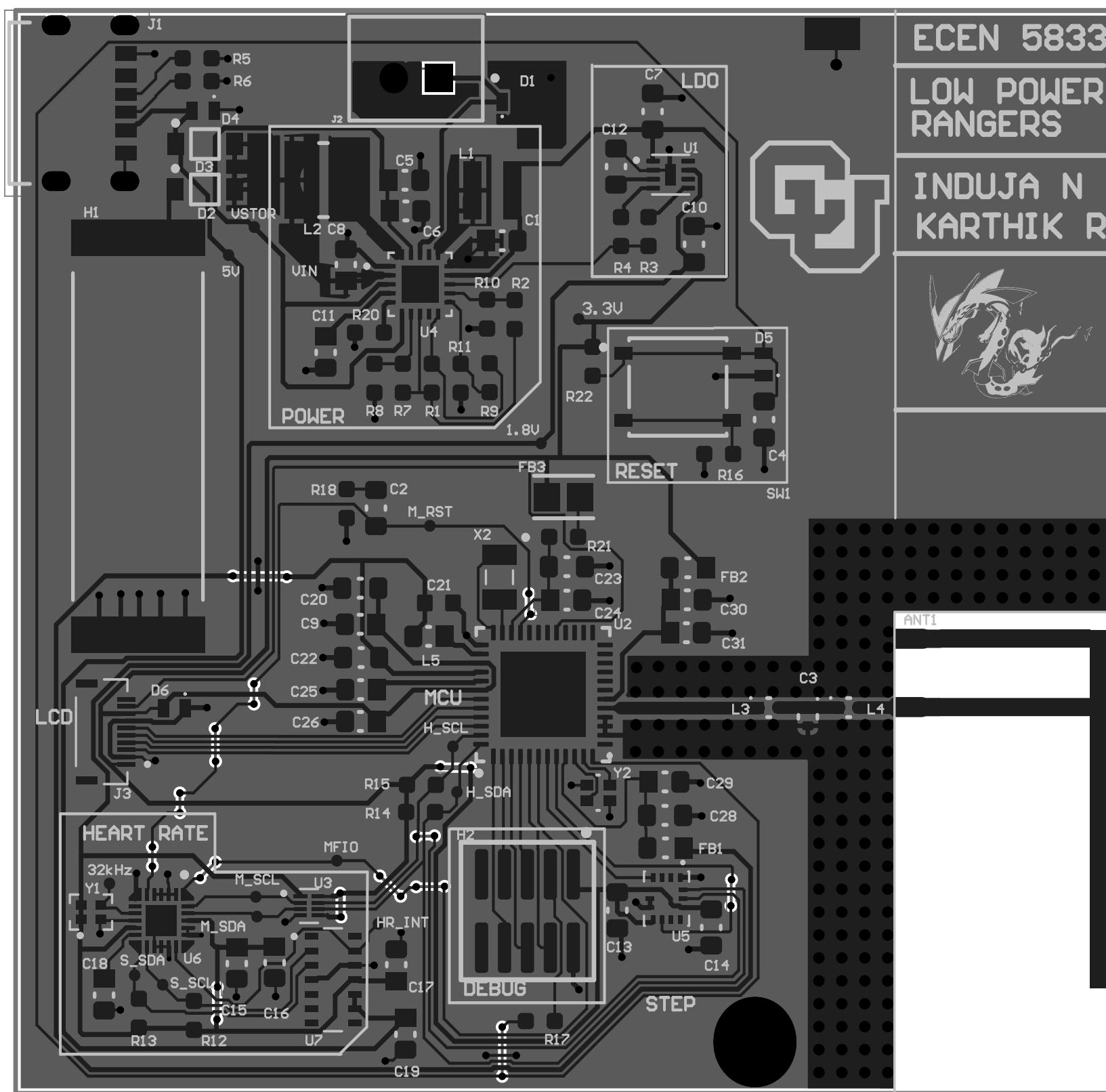
512GM48-DR*

Title		
MCU INTERCONNECTS		
Size	Number	Revision
A4	7	1
Date:	10/26/2025	Sheet of
File:	C:\Users...\EFR32BG13_INTERCONNECTS	Drawn By: Induja N/Karthik R

ECEN 5833

LOW POWER
RANGERS

INDUJA N
KARTHIK R



Line	Order	Customer	Customer Name	Customer Address	Customer City	Customer State	Customer Zip	Customer Phone	Customer Email	Customer Type	Customer Status	Customer Rating	Customer Points	Customer Last Order	Customer Last Purchase	Customer Last Visit	Customer Last Activity	Customer Last Transaction	Customer Last Payment	Customer Last Shipment	Customer Last Return	Customer Last Refund	Customer Last Order Date	Customer Last Purchase Date	Customer Last Visit Date	Customer Last Activity Date	Customer Last Transaction Date	Customer Last Payment Date	Customer Last Shipment Date	Customer Last Return Date	Customer Last Refund Date
1000000000	1000000000	Customer 1	John Doe	123 Main St	New York	NY	10001	123-456-7890	john.doe@example.com	Standard	Active	5.0	1000	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01	2023-01-01		
1000000001	1000000001	Customer 2	Jane Smith	456 Elm St	Boston	MA	02101	555-123-4567	jane.smith@example.com	Standard	Active	4.8	950	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02	2023-01-02		
1000000002	1000000002	Customer 3	Bob Johnson	789 Oak St	Chicago	IL	60601	111-222-3333	bob.johnson@example.com	Standard	Active	4.5	850	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03	2023-01-03		
1000000003	1000000003	Customer 4	Sarah Williams	111 Pine St	Los Angeles	CA	90001	999-888-7777	sarah.williams@example.com	Standard	Active	4.2	750	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04	2023-01-04		
1000000004	1000000004	Customer 5	David Miller	222 Cedar St	Houston	TX	77001	888-777-6666	david.miller@example.com	Standard	Active	4.0	650	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05	2023-01-05		
1000000005	1000000005	Customer 6	Emily Davis	333 Birch St	Phoenix	AZ	85001	777-666-5555	emily.davis@example.com	Standard	Active	3.8	550	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06	2023-01-06		
1000000006	1000000006	Customer 7	Michael Green	444 Cypress St	San Antonio	TX	78201	999-888-7777	michael.green@example.com	Standard	Active	3.5	450	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07	2023-01-07		
1000000007	1000000007	Customer 8	Natalie Blue	555 Willow St	Seattle	WA	98101	888-777-6666	natalie.blue@example.com	Standard	Active	3.2	350	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08	2023-01-08		
1000000008	1000000008	Customer 9	Christopher Grey	666 Chestnut St	Philadelphia	PA	19101	777-666-5555	christopher.grey@example.com	Standard	Active	3.0	250	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09	2023-01-09		
1000000009	1000000009	Customer 10	Olivia White	777 Birch St	Portland	OR	97201	999-888-7777	olivia.white@example.com	Standard	Active	2.8	150	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10	2023-01-10		
1000000010	1000000010	Customer 11	Matthew Black	888 Cedar St	Austin	TX	78701	888-777-6666	matthew.black@example.com	Standard	Active	2.5	50	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11	2023-01-11		
1000000011	1000000011	Customer 12	Isabella Green	999 Birch St	San Jose	CA	95101	999-888-7777	isabella.green@example.com	Standard	Active	2.2	20	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12	2023-01-12		
1000000012	1000000012	Customer 13	James Grey	111 Cypress St	Denver	CO	80201	888-777-6666	james.grey@example.com	Standard	Active	2.0	10	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13	2023-01-13		
1000000013	1000000013	Customer 14	Victoria Blue	222 Willow St	Seattle	WA	98101	999-888-7777	victoria.blue@example.com	Standard	Active	1.8	5	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14	2023-01-14		
1000000014	1000000014	Customer 15	Matthew Black	333 Chestnut St	Philadelphia	PA	19101	777-666-5555	matthew.black@example.com	Standard	Active	1.5	2	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15	2023-01-15		
1000000015	1000000015	Customer 16	Isabella Green	444 Birch St	Portland	OR	97201	999-888-7777	isabella.green@example.com	Standard	Active	1.2	1	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16	2023-01-16		
1000000016	1000000016	Customer 17	James Grey	555 Cypress St	Austin	TX	78701	888-777-6666	james.grey@example.com	Standard	Active	1.0	0	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17	2023-01-17		
1000000017	1000000017	Customer 18	Victoria Blue	666 Willow St	Seattle	WA	98101	999-888-7777	victoria.blue@example.com	Standard	Active	0.8	0	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18	2023-01-18		
1000000018	1000000018	Customer 19	Matthew Black	777 Chestnut St	Philadelphia	PA	19101	777-666-5555	matthew.black@example.com	Standard	Active	0.5	0	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19	2023-01-19		
1000000019	1000000019	Customer 20	Isabella Green	888 Birch St	Portland	OR	97201	999-888-7777	isabella.green@example.com	Standard	Active	0.3	0	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20	2023-01-20		
1000000020	1000000020	Customer 21	James Grey	999 Cypress St	Austin	TX	78701	888-777-6666	james.grey@example.com	Standard	Active	0.1	0	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21	2023-01-21		
1000000021	1000000021	Customer 22	Victoria Blue	111 Willow St	Seattle	WA	98101	999-888-7777	victoria.blue@example.com	Standard	Active	0.0	0	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22	2023-01-22		
1000000022	1000000022	Customer 23	Matthew Black	222 Chestnut St	Philadelphia	PA	19101	777-666-5555	matthew.black@example.com	Standard	Active	0.0	0	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23	2023-01-23		
1000000023	1000000023	Customer 24	Isabella Green	333 Birch St	Portland	OR	97201	999-888-7777	isabella.green@example.com	Standard	Active	0.0	0	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24	2023-01-24		
1000000024	1000000024	Customer 25	James Grey	444 Cypress St	Austin	TX	78701	888-777-6666	james.grey@example.com	Standard	Active	0.0	0	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25	2023-01-25		
1000000025	1000000025	Customer 26	Victoria Blue	555 Willow St	Seattle	WA	98101	999-888-7777	victoria.blue@example.com	Standard	Active	0.0	0	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26	2023-01-26		
1000000026	1000000026	Customer 27	Matthew Black	666 Chestnut St	Philadelphia	PA	19101	777-666-5555	matthew.black@example.com	Standard	Active	0.0	0	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27	2023-01-27		
1000000027	1000000027	Customer 28	Isabella Green	777 Birch St	Portland	OR	97201	999-888-7777	isabella.green@example.com	Standard	Active	0.0	0	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28	2023-01-28		
1000000028	1000000028	Customer 29	James Grey	888 Cypress St	Austin	TX	78701	888-777-6666	james.grey@example.com	Standard	Active	0.0																			