XP2

Цепь	Конт.
3V2	1	→ 3V2
GND	2

B2B-XH-A

XP1

Конт.	Цепь
1	5V
2	oUDS_TRIG
3	iUDS_ECHO
4	

B4B-XH-A

DD12

| 1 | VDD | | VDDA | 9 | → 3V2
24	VDD		VSSA	8
48	VDD		VSS	23
36	VDDIO2		VSS	35
			VSS	47

3V2 ←
C1 0.1uF C2 0.1uF C3 0.1uF C4 0.1uF
C5 1uF C6 0.1uF

XP3

Конт.	Цепь
1	M0
2	M1
3	RXD
4	TXD
5	AUX
6	VCC
7	GND

OLORA_M0, OLORA_M1, COMM_UART_RX, COMM_UART_TX, iLORA_AUX, 5V

DS1023-1x7

DA1

L1 10uH
3V2 ←
2 LBI SHDN 5
7 LX   OUT 8 → 5V
4 REF LBO 3
6 GND FB 1

C8 4.7uF C9 0.1uF C10 4.7uF

L6920DCTR 5V CONVERTER

DS1

| 1 | A0 | | VCC | 8 | → 5V
| 2 | A1 | | WP | 7 |
| 3 | A2 | | SCL | 6 | I2C_EEPROM_SCL
| 4 | GND | | SDA | 5 | I2C_EEPROM_SDA

C7 0.1uF

24C01C EEPROM

XP4

3V2 ←
R1 10k R2 10k

Конт.	Цепь
1	3V3
2	RX
3	TX
4	GND

DEBUG_UART_RX, DEBUG_UART_TX
C11 0.1uF

DS1021-1x4

XP5

3V2 ←
R3 10k R4 10k

Конт.	Цепь
1	3V3
2	SWCLK
3	GND
4	SWDIO
5	NRST
6	SWO

SYS_SWCLK, SYS_SWDIO, NRST
C12 0.1uF C13 0.1uF R6 10k

B6B-PH-K-S

DD1.1 MCU

| 10 | PA0/WKUP | | PB0 | 18 | iLORA_AUX
| 11 | PA1 | | PB1 | 19 | OLORA_M0
| 12 | PA2 | | PB2 | 20 | OLORA_M1
| 13 | PA3 | | PB3 | 39 |
| 14 | PA4 | | PB4 | 40 |
| 15 | PA5 | | PB5 | 41 | — R5 62 — VD1
| 16 | PA6 | | PB6 | 42 | I2C_EEPROM_SCL
| 17 | PA7 | | PB7 | 43 | I2C_EEPROM_SDA
| 29 | PA8 | | PB8 | 45 |
| 30 | PA9 | | PB9 | 46 |
| 31 | PA10 | | PB10 | 21 | COMM_UART_TX
| 32 | PA11 | | PB11 | 22 | COMM_UART_RX
33	PA12		PB12	25
34	PA13		PB13	26
37	PA14		PB14	27
38	PA15		PB15	28
2	PC13		PH0/OSC_IN	5
3	PC14/OCS32_IN		PH1/OSC_OUT	6
4	PC15/OSC32_OUT		NRST	7	NRST
			BOOT0	44

iUDS_ECHO, oUDS_TRIG, oGSM_DTR, DEBUG_UART_TX, DEBUG_UART_RX, SYS_SWDIO, SYS_SWCLK

C15 7pF BQ2 32.768kHz C17 7pF
C14 8pF BQ1 8MHz C16 8pF
R7 10k

XP6

Конт.	Цепь
2, 4	5V
26	DTR
10	SIM_RX
8	SIM_TX
6, 9, 14, 20, 25, 30, 34, 39	GND
Остальные	GPIO
27 -28	RESERVED

5V, oGSM_DTR, COMM_UART_RX, COMM_UART_TX

DS1021-2x20

Изм.	Лист	№ докум.	Подп.	Дата		REIS Э3		Лит.	Масса	Масштаб
Разраб.						Node				
Пров.										
Т. контр.					Схема электрическая принципиальная		Лист 1	Листов 1
Н. контр.										
Утв.										

Model	Manufacturer	Примечание	Кол-во
NX5032GA-8MHz	NDK	BQ1	1
NX3215SA-32.768K	NDK	BQ2	1
GRM188R71H104JA93D	Murata	C1...C4, C6, C7, C9, C11...C13	10
GRM188R71E105KA12D	Murata	C5	1
GRM319R61E475K	Murata	C8, C10	2
CC0603DRNPO9BN8R0	Yageo	C14, C16	2
CC0603CRNPO9BN7R0	Yageo	C15, C17	2
L6920DCTR	STMicroelectronics	DA1	1
STM32L051C8T6	STMicroelectronics	DD1	1
24C01C-SSHM-T	Atmel	DS1	1
LQH55DN100M	Murata	L1	1
RC0603FR-0710KL	Тайвань	R1...R4, R6, R7	6
RC0603JR-0762RL	Тайвань	R5	1
GNL-0603EC	G-nor	VD1	1
B4B-XH-A	JST	XP1	1
B2B-XH-A	JST	XP2	1
DS1023-1x7	Connfly	XP3	1
DS1021-1x4	Connfly	XP4	1
B6B-PH-K-S	JST	XP5	1
DS1021-2x20	Connfly	XP6	1