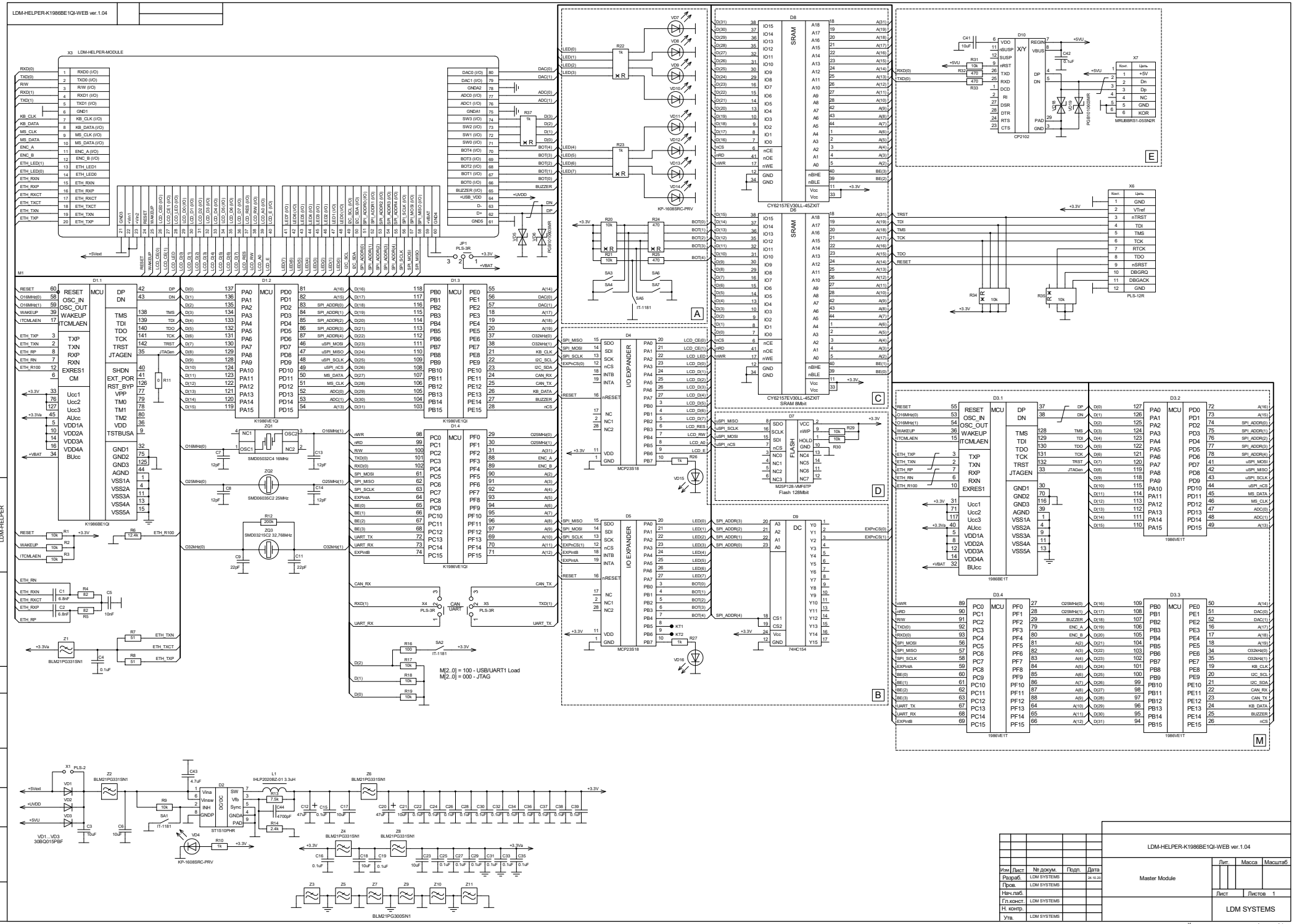
LDM-HELPER-K1986BE1QI-WEB ver.1.04
X3 LDM-HELPER-MODULE
RXD(0)
TXD(0)
R/W
RXD(1)
TXD(1)
KB_CLK
KB_DATA
MS_CLK
MS_DATA
ENC_A
ENC_B
ETH_LED(1)
ETH_LED(0)
ETH_RXN
ETH_RXP
ETH_RXCT
ETH_TXCT
ETH_TXN
ETH_TXP
GND3
Vin1
Vin2
RESET
WAKEUP
LCD_CS(0)
LCD_CS(1)
LCD_LED
LCD_D(0)
LCD_D(1)
LCD_D(2)
LCD_D(3)
LCD_D(4)
LCD_D(5)
LCD_D(6)
LCD_D(7)
LCD_RS
LCD_RW
LCD_A0
LCD_E
LED(7)
LED(6)
LED(5)
LED(4)
LED(3)
LED(2)
LED(1)
LED(0)
I2C_SCL
I2C_SDA
SPI_ADDR(0)
SPI_ADDR(1)
SPI_ADDR(2)
SPI_ADDR(3)
SPI_ADDR(4)
SPI_SCLK
SPI_MOSI
SPI_MISO
SPI_nCS
GND4
DAC0 (I/O)
DAC1 (I/O)
GNDA2
ADC0 (I/O)
ADC1 (I/O)
GNDA1
SW3 (I/O)
SW2 (I/O)
SW1 (I/O)
SW0 (I/O)
BOT4 (I/O)
BOT3 (I/O)
BOT2 (I/O)
BOT1 (I/O)
BOT0 (I/O)
BUZZER (I/O)
+USB_VDD
D-
D+
GNDS
+5Vext
+UVDD
+5VU
+VBAT
+3.3V
M1
D1.1
D1.2
D1.3
D1.4
K1986BE1QI
RESET
OSC_IN
OSC_OUT
WAKEUP
ITCMLAEN
TXP
TXN
RXP
RXN
EXRES1
CM
SHDN
EXT_POR
EXT_BYP
VPP
TM0
TM1
TM2
VDD
TSTBUSA
Ucc1
Ucc2
Ucc3
AUcc
VDD1A
VDD2A
VDD3A
VDD4A
BUcc
GND1
GND2
GND3
AGND
VSS1A
VSS2A
VSS3A
VSS4A
VSS5A
JTAGEN
R11
0
ETH_TXP
ETH_TXN
ETH_RP
ETH_RN
ETH_R100
R1 10k
R2 10k
R3 10k
R6 12.4k
ETH_R100
C1 6.8nF
C2 6.8nF
R4 82
R5 82
C5 10nF
ETH_RXN
ETH_RXCT
ETH_RXP
ETH_RP
Z1 BLM21PG331SN1
C4 0.1uF
R7 51
R8 51
ETH_TXN
ETH_TXCT
ETH_TXP
ZQ1 SMD05032C4 16MHz
C7 12pF
C13 12pF
O16MHz(0)
O16MHz(1)
ZQ2 SMD06035C2 25MHz
C8 12pF
C14 12pF
O25MHz(0)
O25MHz(1)
ZQ3 SMD03215C2 32.768kHz
C9 22pF
C11 22pF
R12 200k
O32kHz(0)
O32kHz(1)
D(0)
D(1)
D(2)
D(3)
D(4)
D(5)
D(6)
D(7)
D(8)
D(9)
D(10)
D(11)
D(12)
D(13)
D(14)
D(15)
A(16)
A(15)
SPI_ADDR(0)
SPI_ADDR(1)
SPI_ADDR(2)
SPI_ADDR(3)
uSPI_MOSI
uSPI_MISO
uSPI_SCLK
uSPI_nCS
MS_DATA
MS_CLK
ADC(0)
ADC(1)
A(13)
A(12)
nWR
nRD
R/W
TXD(0)
RXD(0)
SPI_MOSI
SPI_MISO
SPI_SCLK
EXPintA
BE(0)
BE(1)
BE(2)
BE(3)
UART_TX
UART_RX
EXPintB
A(14)
A(11)
A(10)
A(9)
A(8)
A(7)
A(6)
A(5)
A(4)
A(3)
A(2)
A(1)
O25MHz(0)
O25MHz(1)
A(31)
ENC_A
ENC_B
CAN_RX
CAN_TX
RXD(1)
TXD(1)
UART_RX
UART_TX
X4 PLS-3R
CAN_UART
X5 PLS-3R
R16 100
R17 10k
R18 10k
R19 10k
SA2 IT-1181
+3.3V
D(2)
D(1)
D(0)
M[2..0] = 100 - USB/UART1 Load
M[2..0] = 000 - JTAG
LED(0)
LED(1)
LED(2)
LED(3)
LED(4)
LED(5)
LED(6)
LED(7)
DAC(0)
DAC(1)
ADC(0)
ADC(1)
D(3)
D(2)
D(1)
D(0)
BOT(4)
BOT(3)
BOT(2)
BOT(1)
BOT(0)
BUZZER
R22 1k
R37 1k
R23 1k
VD7
VD8
VD9
VD10
VD11
VD12
VD13
VD14
KP-1608SRC-PRV
+UVDD
DN
DP
VD5
VD6
SA5
SA6
SA7
IT-1181
R20 10k
R24 470
R25 470
R21 10k
SA3
SA4
BOT(0)
BOT(1)
BOT(2)
BOT(3)
BOT(4)
A
D4
I/O EXPANDER
SDO
SDI
SCK
nCS
INTB
INTA
nRESET
NC
NC1
NC2
VDD
GND
PA0
PA1
PA2
PA3
PA4
PA5
PA6
PA7
PB0
PB1
PB2
PB3
PB4
PB5
PB6
PB7
MCP23S18
LCD_CE(0)
LCD_CE(1)
LCD_LED
LCD_D(0)
LCD_D(1)
LCD_D(2)
LCD_D(3)
LCD_D(4)
LCD_D(5)
LCD_D(6)
LCD_D(7)
LCD_RES
LCD_RW
LCD_E
LCD_A0
R26 1k
VD15
D5
LED(0)
LED(1)
LED(2)
LED(3)
LED(4)
LED(5)
LED(6)
LED(7)
BOT(0)
BOT(1)
BOT(2)
BOT(3)
BOT(4)
KT1
KT2
R27 1k
VD16
B
D8
SRAM
IO15
IO14
IO13
IO12
IO11
IO10
IO9
IO8
IO7
IO6
IO5
IO4
IO3
IO2
IO1
IO0
nCE
nOE
nWE
nBHE
nBLE
Vcc
GND
A18
A17
A16
A15
A14
A13
A12
A11
A10
A9
A8
A7
A6
A5
A4
A3
A2
A1
A0
CY62157EV30LL-45ZXIT
D6
BE(3)
BE(2)
BE(1)
BE(0)
+3.3V
C
D7
FLASH
SDO
SCLK
SDI
nCS
nWP
HOLD
GND
NC0
NC1
NC2
NC3
NC4
NC5
NC6
NC7
VCC
R29 10k
R30 10k
M25P128-VMF6TP
Flash 128Mbit
D
D9
DC
A3
A2
A1
A0
Y0
Y1
Y2
Y3
Y4
Y5
Y6
Y7
Y8
Y9
Y10
Y11
Y12
Y13
Y14
Y15
SPI_ADDR(3)
SPI_ADDR(2)
SPI_ADDR(1)
SPI_ADDR(0)
SPI_ADDR(4)
EXPnCS(0)
EXPnCS(1)
74HC154
D10
X/Y
VDO
nSUSP
nRST
TXD
RXD
DCD
RI
DSR
DTR
RTS
CTS
REGIN
VBUS
DP
DN
PAD
GND
CP2102
C41 10uF
C42 0.1uF
R31 10k
R32 470
R33 470
VD17
VD18
PGB1010603MR
X7
MRUBBRS1-05SNR
E
X6
PLS-12R
TRST
TDI
TMS
TCK
RTCK
TDO
nSRST
DBGRQ
DBGACK
R34 10k
R35 10k
D3.1
D3.2
D3.3
D3.4
1986VE1T
M
LDM-HELPER-K1986BE1QI-WEB ver.1.04
Master Module
LDM SYSTEMS
Лит.
Масса
Масштаб
Лист
Листов 1
Изм. Лист № докум. Подп. Дата
Разраб. LDM SYSTEMS 24.10.22
Пров. LDM SYSTEMS
Нач.лаб.
Гл.конст. LDM SYSTEMS
Н. контр.
Утв. LDM SYSTEMS
Копировал
Формат А1
Перв. примен. LDM-HELPER
Справ. №
Подп. и дата
Инв. №дубл.
Взам. инв.№
Подп. и дата
Инв. №подл.
X1 PLS-2
VD1
VD2
VD3
VD1...VD3 30BQ015PBF
Z2 BLM21PG331SN1
C3 10uF
C6 10uF
C43 4.7uF
D2 DC/DC ST1S10PHR
Vina
Vinsw
INH
GNDP
SW
Vfb
Sync
GNDA
PAD
L1 IHLP2020BZ-01 3.3uH
R13 7.5k
C44 4700pF
R14 2.4k
R9 10k
SA1 IT-1181
VD4 KP-1608SRC-PRV
R10 1k
Z6 BLM21PG331SN1
C12 47uF
C15 0.1uF
C17 10uF
C20 47uF
C21 10uF
C22 0.1uF
C24 0.1uF
C26 0.1uF
C28 0.1uF
C30 0.1uF
C32 0.1uF
C34 0.1uF
C36 0.1uF
C37 0.1uF
C38 0.1uF
C39 0.1uF
Z4 BLM21PG331SN1
Z8 BLM21PG331SN1
C16 0.1uF
C18 10uF
C19 0.1uF
C23 10uF
C25 0.1uF
C27 0.1uF
C29 0.1uF
C31 0.1uF
C33 0.1uF
C35 0.1uF
Z3
Z5
Z7
Z9
Z10
Z11
BLM21PG300SN1