Pin Map

STM32 Open IoT and IIoT Gateways (P10 - P12)

CGM Rev. 3.1

Element	Connection
LED	
Power LED	+3V3
LED1	PG6
LED2	PH14
LED3	PA10
LED4	PH12
LED5	PI9
ST3232BTR_1 UART RS232 Transceiver (P10 & P11)	
T1_IN	USART1_TXD
T2_IN	USART6_TXD
T1_OUT	TXD1
T2_OUT	TXD2
R1_IN	RXD1

Element	Connection
R2_IN	RXD2
R1_OUT	USART1_RXD
R2_OUT	USART6_RXD
V+	C7 (100nF)
V-	C8 (100nF)
C1+	C5 (100nF)
C1-	C5 (100nF)
C2+	C6 (100nF)
C2-	C6 (100nF)
ESDA25-4BP6 ESD protection	
I/O_1	RXD2
I/O_2	TXD1
I/O_3	RXD1
I/O_4	TXD2
GND	FGC
ST3232BTR_2 UART RS232 Transceiver (P10)	
T1_IN	USART3_TXD
T2_IN	UART7_TXD
T1_OUT	B_4
T2_OUT	B_3
R1_IN	A_4
R2_IN	A_3

Element	Connection
R1_OUT	USART3_RXD
R2_OUT	UART7_RXD
V+	C64 (100nF)
V-	C65 (100nF)
C1+	C57 (100nF)
C1-	C57 (100nF)
C2+	C50 (100nF)
C2-	C50 (100nF)
ESDA25-4BP6 ESD protection	
I/O_1	-
I/O_2	-
I/O_3	B_4
I/O_4	A_4
GND	FGC
MAX481CSA_1 UART RS485 Transceiver (P12)	
DI	USART1_TXD
DE	RS485_DRIVER_ENABLE1
RE/	RS485_RECEIVER_ENABLE1
RO	USART1_RXD
A	TXD1
B	RXD1
MAX481CSA_2 UART RS485 Transceiver (P12)	

Element	Connection
DI	USART6_TXD
DE	RS485_DRIVER_ENABLE2
RE/	RS485_RECEIVER_ENABLE2
RO	USART6_RXD
A	TXD2
B	RXD2
MAX481CSA_3 UART RS485 Transceiver (P11 & P12)	
DI	USART3_TXD
DE	RS485_DRIVER_ENABLE3
RE/	RS485_RECEIVER_ENABLE3
RO	USART3_RXD
A	A_3
B	B_3
MAX481CSA_4 UART RS485 Transceiver (P11 & P12)	
DI	UART7_TXD
DE	RS485_DRIVER_ENABLE4
RE/	RS485_RECEIVER_ENABLE4
RO	UART7_RXD
A	A_4
B	B_4
USBLC6-2P6 ESD protection	
VCC	VBUS_ADC, MICROUSB_B_U254-051T-4BH83-F1S (PIN1)

Element	Connection
GND	GND
IO1_A	MICROUSB_B_U254-051T-4BH83-F1S (PIN2)
IO2_A	MICROUSB_B_U254-051T-4BH83-F1S (PIN3)
IO1_B	BOOTLOADER_TX
IO2_B	BOOTLOADER_RX
Serial EEPROM M24C08-RMC6TG	
E0	GND
E1	GND
E2	+3V3
VSS	GND
VCC	+3V3
WC/	GND
SCL	I2C1_SCL
SDA	I2C1_SDA
Serial Flash A25LQ64M	
CS#	SPI2_SS
SO	SPI2_MISO
WP#	SPI2_W
VSS	GND
VCC	+3V3
HOLD#	SPI2_IO3
SCLK	SPI2_SCK

Element	Connection
SI	SPI2_MOSI
IP101GRI ETHERNET PHY transceivers	
MDC	ETH_MDC
MDIO	ETH_MDIO
MDI_TP	TXD+
MDI_TN	TXD-
MDI_RP	RXD+
MDI_RN	RXD-
X2	-
X1	ETH_MCO
RESET_N	ETH_RESET_N
ISET	ETH_ISET
LED0/PHY_AD0	ETH_LED0/PHY_AD0
LED3/PHY_AD3	ETH_LED3/PHY_AD3
TEST_ON	-
REGOUT	C23 (100 nF), C29 (10 uF)
VDDIO	+3V3
AVDD33	+3V3
GND	GND
TXEN	ETH_TX_EN
TXER/FXSD	-
TXCLK/50M_CLKI	ETH_RMII_REF_CLK

Element	Connection
TXD0	ETH_TXD0
TXD1	ETH_TXD1
TXD2	-
TXD3	-
RXDV/CRS_DV/FX_HEN	ETH_RXDV/CRS_DV
RXCLK/50M_CLKO	-
RXD0	ETH_RXD0
RXD1	ETH_RXD1
RXD2	-
RXD3	-
RXER/INTR_32	-
COL/RMII	ETH_COL/RMII
CRS/LEDMOD	-
STM32 F439NIH6	
PA0	-
PA1	ETH_RMII_REF_CLK
PA2	ETH_MDIO
PA3	-
PA4	-
PA5	-
PA6	SWITCH
PA7	ETH_RXDV/CRS_DV

Element	Connection
PA8	ETH_MCO
PA9	BUZZER_PWM
PA10	LED_A3
PA11	USB_DM BOOTLOADER_RX
PA12	USB_DP BOOTLOADER_TX
PA13	JTMS
PA14	JTCK
PA15	CONF2
PB0	ETH_LED0/PHY_AD0
PB1	ETH_LED3/PHY_AD3
PB2	BOOT1
PB3	SW0
PB4	USART1_RXD
PB5	USART1_TXD
PB6	USART1_TXD
PB7	USART1_RXD
PB8	I2C1_SCL
PB9	I2C1_SDA
PB10	USART3_TXD
PB11	USART3_RXD
PB12	USART3_RXD
PB13	USART3_TXD

Element	Connection
PB14	-
PB15	-
PC0	SD_NWE
PC1	ETH_MDC
PC2	-
PC3	-
PC4	ETH_RXD0
PC5	ETH_RXD1
PC6	USART6_TXD
PC7	USART6_TXD
PC8	CONF4
PC9	CONF1
PC10	BOOTLOADER_TX
PC11	BOOTLOADER_RX
PC12	CONF3
PC13	RTC_AF1
PC14	OSC32_IN
PC15	OSC32_OUT
PD0	D2
PD1	D3
PD2	CONF6
PD3	-

Element	Connection
PD4	NOR_NOE
PD5	NOR_NWE
PD6	NOR_NWAIT
PD7	NOR_NE1
PD8	D13
PD9	D14
PD10	D15
PD11	A16
PD12	A17
PD13	A18
PD14	D0
PD15	D1
PE0	SD_LDOM
PE1	SD_UDOM
PE2	-
PE3	A19
PE4	A20
PE5	A21
PE6	-
PE7	D4
PE8	D5
PE9	D6

Element	Connection
PE10	D7
PE11	D8
PE12	D9
PE13	D10
PE14	D11
PE15	D12
PF0	A0
PF1	A1
PF2	A2
PF3	A3
PF4	A4
PF5	A5
PF6	UART7_RXD
PF7	UART7_TXD
PF8	VBUS_ADC
PF9	L2
PF10	L1
PF11	SD_NDRAS
PF12	A6
PF13	A7
PF14	A8
PF15	A9

Element	Connection
PG0	A10
PG1	A11
PG2	A12
PG3	A13
PG4	A14
PG5	A15
PG6	LED_A1
PG7	DIP_SWITCH
PG8	SD_CLK
PG9	USART6_RXD
PG10	USART6_RXD
PG11	ETH_TXEN
PG12	-
PG13	ETH_TXD0
PG14	ETH_TXD1
PG15	SD_NCAS
PH0	OSC+IN
PH1	OSC_OUT
PH2	SD_CKE0
PH3	SD_NE0
PH4	I2C2_SCL
PH5	I2C2_SDA

Element	Connection
PH6	-
PH7	-
PH8	RS485_DRIVER_ENABLE1
PH9	RS485_RECEIVER_ENABLE1
PH10	RS485_DRIVER_ENABLE2
PH11	RS485_RECEIVER_ENABLE2
PH12	LED_A4
PH13	-
PH14	LED_A2
PH15	CONF5
PI0	WP#//ACC
PI1	SPI2_SCK
PI2	SPI2_MISO
PI3	SPI2_MOSI
PI4	SPI2_W
PI5	SPI2_IO3
PI6	ETH_RST
PI7	RS485_DRIVER_ENABLE3
PI8	RS485_RECEIVER_ENABLE3
PI9	LED_5
PI10	RS485_TERMINATION_ENABLE4
PI11	RS485_TERMINATION_ENABLE3

Element	Connection
PI12	SPI2_SS
PI13	-
PI14	RS485_RECEIVER_ENABLE4
PI15	RS485_DRIVER_ENABLE4

Optional

Element	Connection
HTS221	
VDD	+3V3
CS	+3V3
GND	GND
SCL/SPC	I2C2_SCL
SDA/SDI/SDO	I2C2_SDA
DRDY	-
LIS3DH	
VDD_IO	+3V3
NC	-
NC	-
SCL/SPC	I2C2_SCL
GND	GND
SDA/SDI/SDO	I2C2_SDA

Element	Connection
SDO/SAO	-
CS	+3V3
ADC1	-
ADC2	-
VDD	+3V3
ADC3	-
GND	GND
INT1	-
RES	GND
INT2	-
LSM6DS33	
GND, GND, RES, RES, RES, RES	GND
INT1	-
INT2	-
VDDIO	+3V3
SCL	I2C2_SCL
SDA	I2C2_SDA
SDO	-
CS	+3V3
NC	-
RES	GND
VDD	+3V3

Element	Connection
SI7006-A20/SI7020-A20	
SDA	I2C2_SDA
SCL	I2C2_SCL
GND	GND
VDD	+3V3
DNC1	-
DNC2	-

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