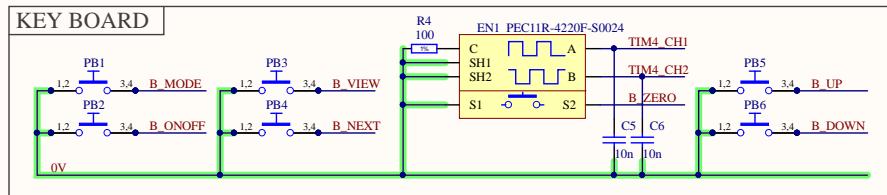
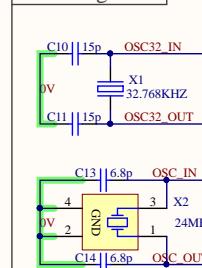
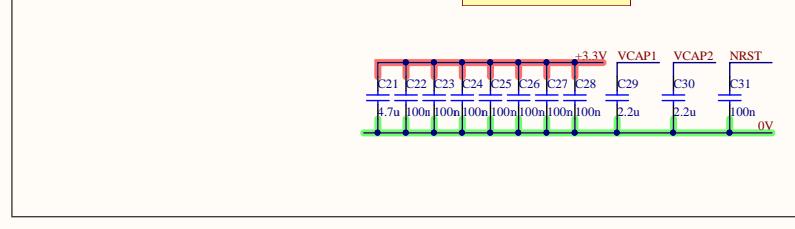


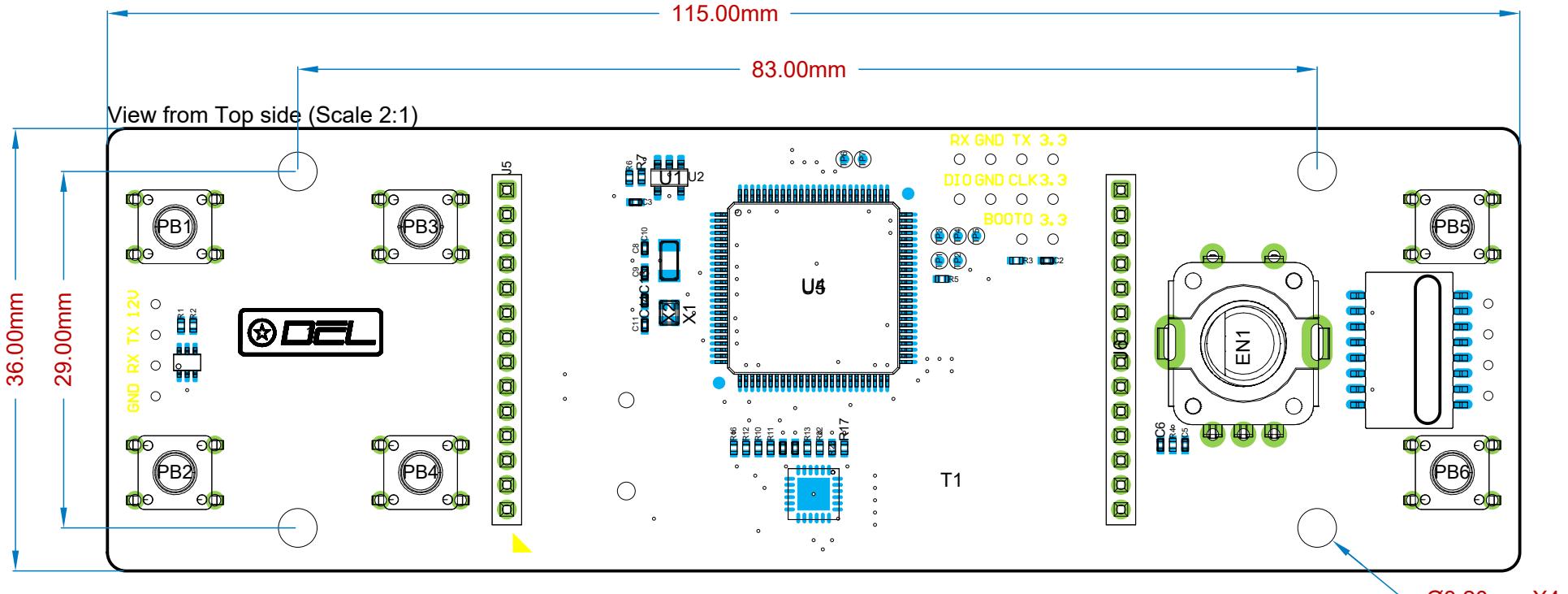
**KEY BOARD****MCU Signals**

U5 STM32F407VET6	
B_ONOFF	PE2 100 +3.3V
B_NEXT	PE3 99 0V
B_VIEW	PE4 98
B_MODE	PE5 97
VBAT	PE6 96 I2C1 SDA
VBAT	PE7 95 I2C1 SCL
32.768KHZ	PE8 94 BOOT0
PC13	PE9 93 UART1 RX
PC14/OSC32_IN	PE10 92 UART1 TX
OSC32_OUT	PE11 91 PC15/OSC32_OUT
0V	PE12 90 VDD
+3.3V	PE13 89 SPI3 MOSI
OSC_IN	PE14 88 SPI3 CLK
OSC_OUT	PE15 87 PH0/OSC_IN
NRST	PE16 86 PH1/OSC_OUT
PCO	PE17 85 LCD_DC
PC1	PE18 84 LCD_CS
PC2	PE19 83 LCD_RST
PC3	PE20 82 CAN1_TX
VDD	PE21 81 CAN1_RX
VSAA	PE22 80 UART4_RX
VRFF+	PE23 79 UART4_TX
VDDA	PE24 78 PA0/WKUP
PA0	PE25 77 PA1
PA1	PE26 76 PA2
PA2	PE27 75 PA3
PA3	PE28 74 PA4
PA4	PE29 73 PA5
PA5	PE30 72 PA6
PA6	PE31 71 PA7
PA7	PE32 70 PA8
PA8	PE33 69 PA9
PA9	PE34 68 PA10
PA10	PE35 67 PA11
PA11	PE36 66 PA12
PA12	PE37 65 PA13
PA13	PE38 64 PA14
PA14	PE39 63 PA15
PA15	PE40 62 PA16
PA16	PE41 61 PA17
PA17	PE42 60 PA18
PA18	PE43 59 PA19
PA19	PE44 58 PA20
PA20	PE45 57 PA21
PA21	PE46 56 PA22
PA22	PE47 55 PA23
PA23	PE48 54 PA24
PA24	PE49 53 PA25
PA25	PE50 52 PA26
PA26	PE51 51 PA27
PA27	PE52 50 PA28
PA28	PE53 49 PA29
PA29	PE54 48 PA30
PA30	PE55 47 PA31
PA31	PE56 46 0V

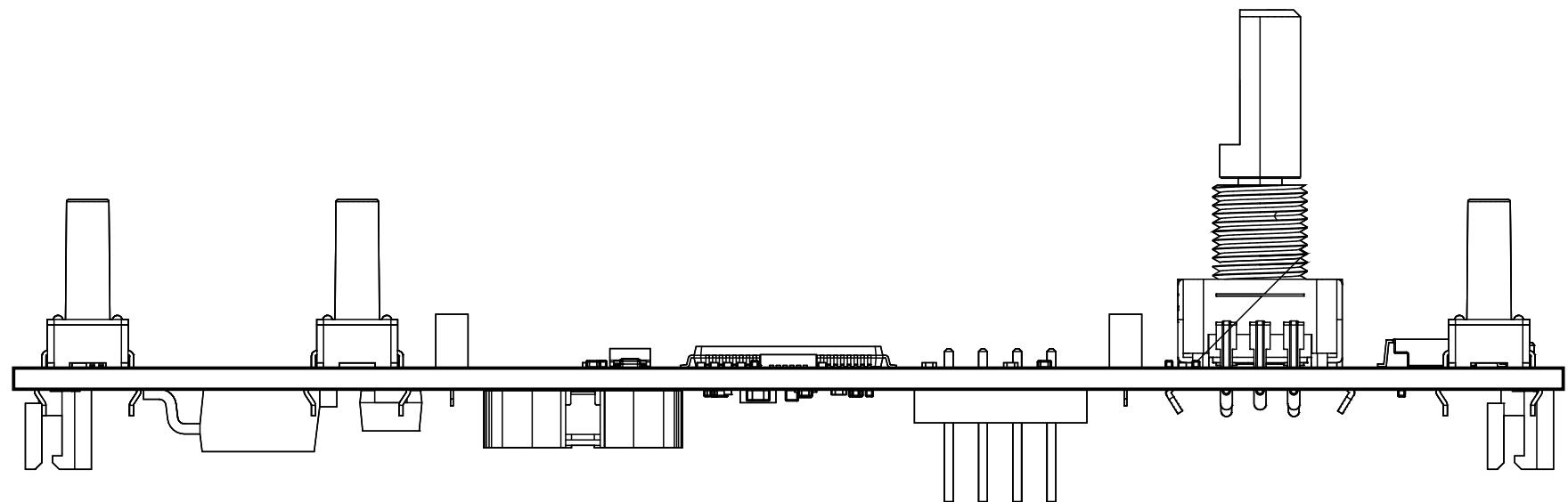
TP10 RCC\_MCO1  
TP20 RCC\_MCO2  
TP30 USB\_OTG\_FS\_DP  
TP40 USB\_OTG\_FS\_DM  
TP50 USB\_OTG\_FS\_ID  
TP55 CAN1\_RX  
TP70 CAN1\_RX



Designator	Part Description	Footprint	Part Number	Quantity
U4	Small Footprint RMII 10/100 Ethernet Transceiver with HP	QFN50P400X400X100-25N-S265	LAN8720A-CP-TR	1
U3	3.3V 1.5A Low Dropout Positive Regulators	TO254P1435X464-4N-R1041X635	LM1086IS-3.3	1
U5	ARM Cortex-M4 32b MCU+FPU, 210DMIPS, up to 1MB Flas	QFP50P1600X1600X160-100N	STM32F407VET6	1
SK1	Battery holder for CR and LIR series1216 to 1220,1225	EEMB_BH500	EEMB_BH500	1
J4	2 Contacts - Horizontal Contacts Straight Strip Header Pitch	3M_2302-6111-TG	3M_2302-6111-TG	1
J1, J7	2.50mm Pitch SPOX Wire-to-Board Header, Vertical, Shroud	MOLEX_22-03-5045	MOLEX_22-03-5045	2
J2, J3	4 Contacts - Vrtical Contacts Straight Strip Header Pitch 2.	3M_2304-6111-TG	3M_2304-6111-TG	2
J5, J6	14 Contacts - 2mm x 2 mm Straight, Boardmount Socket, 90°	3M_955114-6102-AR	3M_955114-6102-AR	2
X2	± 30ppm at (25±3°C), -30°C to +85°C, 6pF, Ceramic SMD Cr	OSCCC160X200X65-4N	24MHZ_XRCGB24M00	1
EN1	12 mm Incremental Encoder, 24 pulses, Push Momentary S	EN_BOURNS_PEC11R-4x20F-Sxxxx	EN_BOUNCE_PEC11R-	1
U1	ESD Protection Diode, Low Clamping Voltage	SOT65P220X110-6N	NUP4202W1	1
U2	8K Serial EEPROM	SOT95P280X145-5N	24AA08T-I/OT	1
L1	SMT Inductors	INDC2520X100N	IND1008_2.2UH_20%	1
LD1	Surface Mount Red LED (0603 Case)	LEDC1608X80N_RED	LED_OF-SMD1608R	1
LD2	Surface Mount Red LED (0603 Case)	LEDC1608X80N_BLUE	LED_OF-SMD1608B	1
LD3	Surface Mount Red LED (0603 Case)	LEDC1608X80N_YELLOW	LED_OF-SMD1608Y	1
LD4	Surface Mount Green LED (0603 Case)	LEDC1608X80N_GREEN	LED_OF-SMD1608G	1
C1, C2, C3, C15, C16, C	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_100NF_50V_	13
C4	SMD Multilayer Chip Ceramic Capacitor	CAPC3216X100N	CC1206_22UF_16V_2	1
C5, C6	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_10NF_50V_1	2
C8	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_470PF_50V_1	1
C9, C29, C30	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_2.2UF_6.3V_1	3
C10, C11	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_15PF_50V_5	2
C12, C18, C19	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_22NF_16V_1	3
C13, C14	SMD Multilayer Chip Ceramic Capacitor	CAPC1005X55N	CC0402_6.8PF_50V_0	2
C17, C20, C21	SMD Multilayer Chip Ceramic Capacitor	CAPC1608X87N	CC0603_4.7UF_10V_1	3
LS1	Piezo sound generator	HPS13C	HPS13C	1
C7	Low ESR OR025 Tantalum Chip Capacitor	CAPMP7343X310N	CTE7343-31_330UF_6	1
PB1, PB2, PB3, PB4, PE	12VDC 50mA SPST Tactile Push-Button Switch	PB_E-SWITCH_TL1105HF100Q	PB_E-SWITCH_TL1105	6
X1	Quartz Crystal ±20ppm	OSCCC150X320X80-2N	32.768KHz_KX-327NH	1
R1, R2, R4, R5, R13	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_100R_1%_0.06	5
R3, R9, R14	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_1K_1%_0.0625	3
R6, R7, R16	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_2K_1%_0.0625	3
R8, R23	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_270R_1%_0.06	2
R10, R11, R12	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_10R_1%_0.062	3
R15	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_1K5_1%_0.062	1
R17	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_12K_1%_0.062	1
R18, R19, R20, R21	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_49R9_1%_0.06	4
R22	General Purpose Thick Film Chip Resistor	RESC1005X40N	R0402_4K7_1%_0.062	1
D1	Schottky Power Rectifier	SOD-123FL	MBR140SFT1G	1
T1	10/100BASE-Tx PC Card LAN Magnetics Module	XFMR_LF-H84P	PE-68678	1
TP1, TP2, TP3, TP4, TP	0.8mm round SMD Pad	TP_SMD_800	TP_SMD_0.8MM	7



View from Front side (Scale 2:1)



A

### View from Bottom side (Scale 2:1)

