1. Anexos

1.1. ART FILM – TOP

1.2. ART FILM – BOTTOM

1.3. ART FILM - SOLDERMASK_TOP

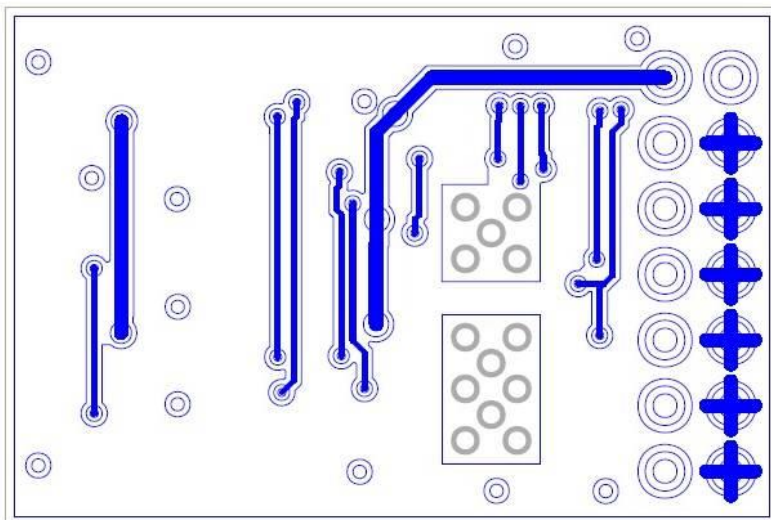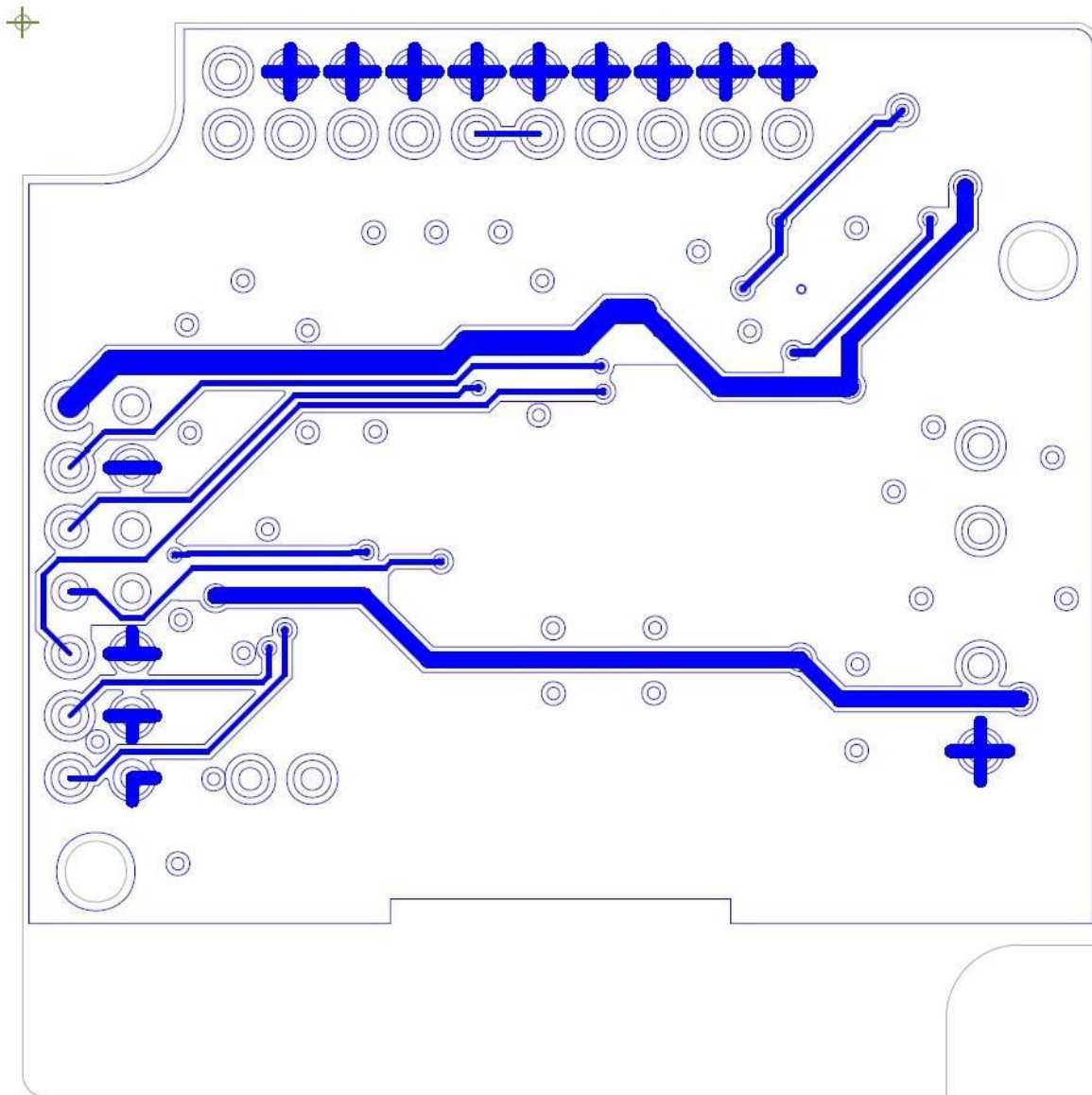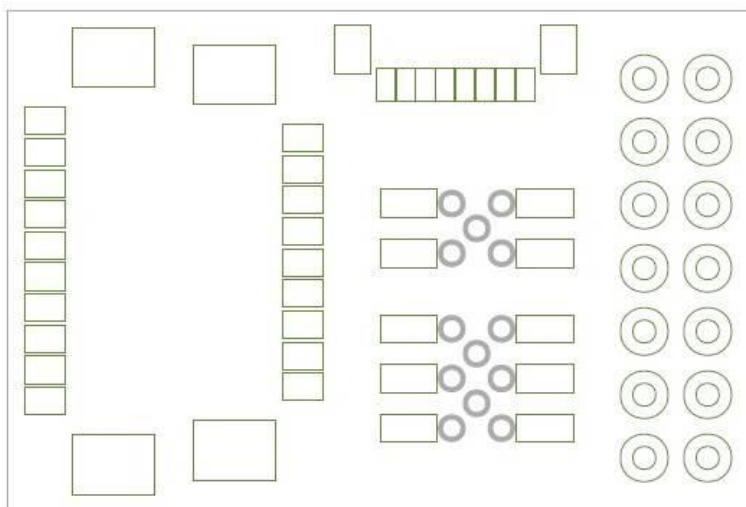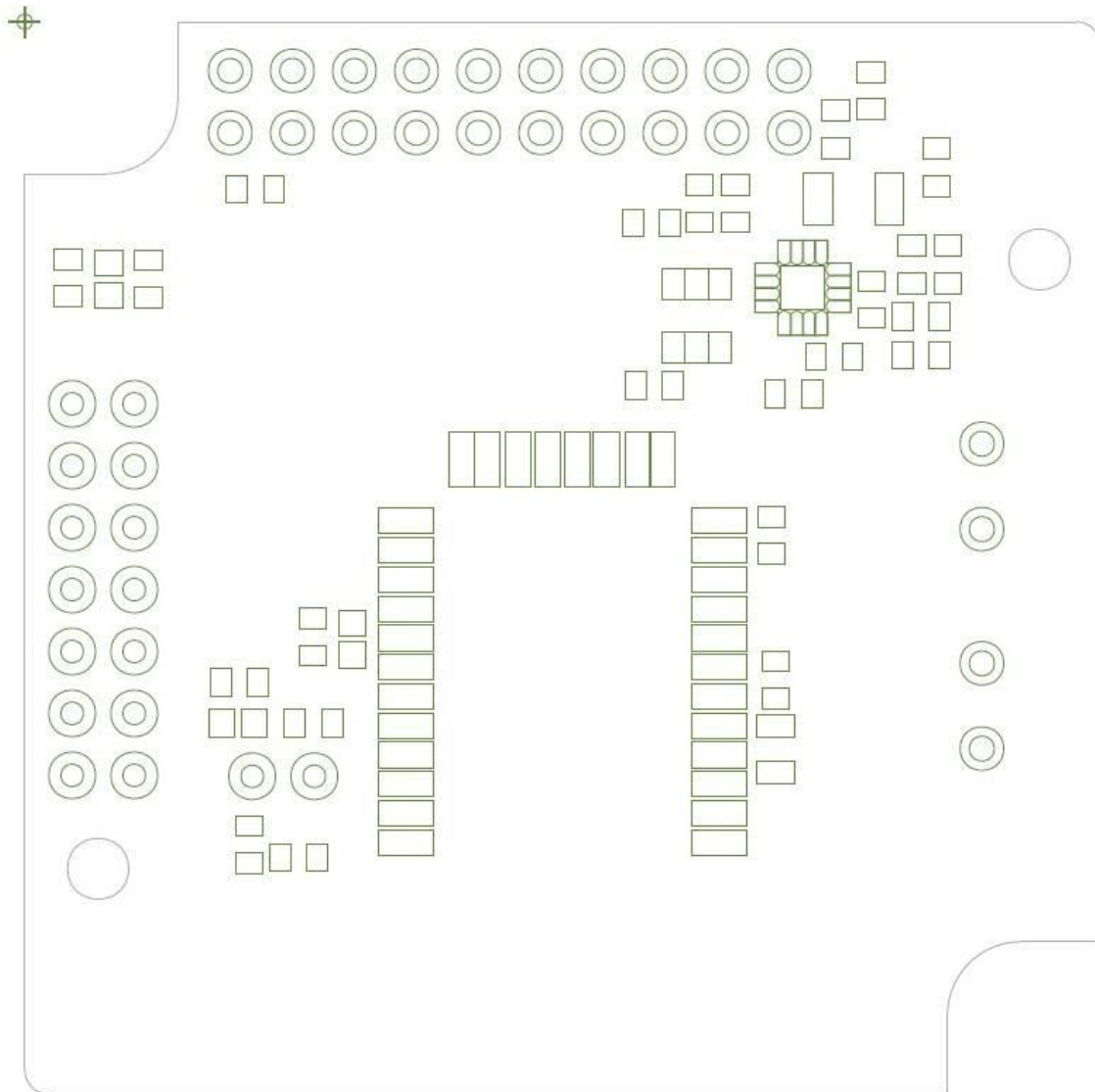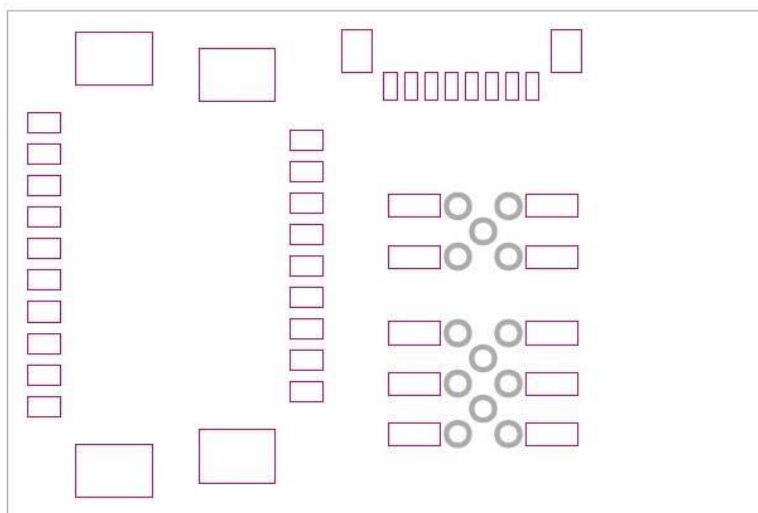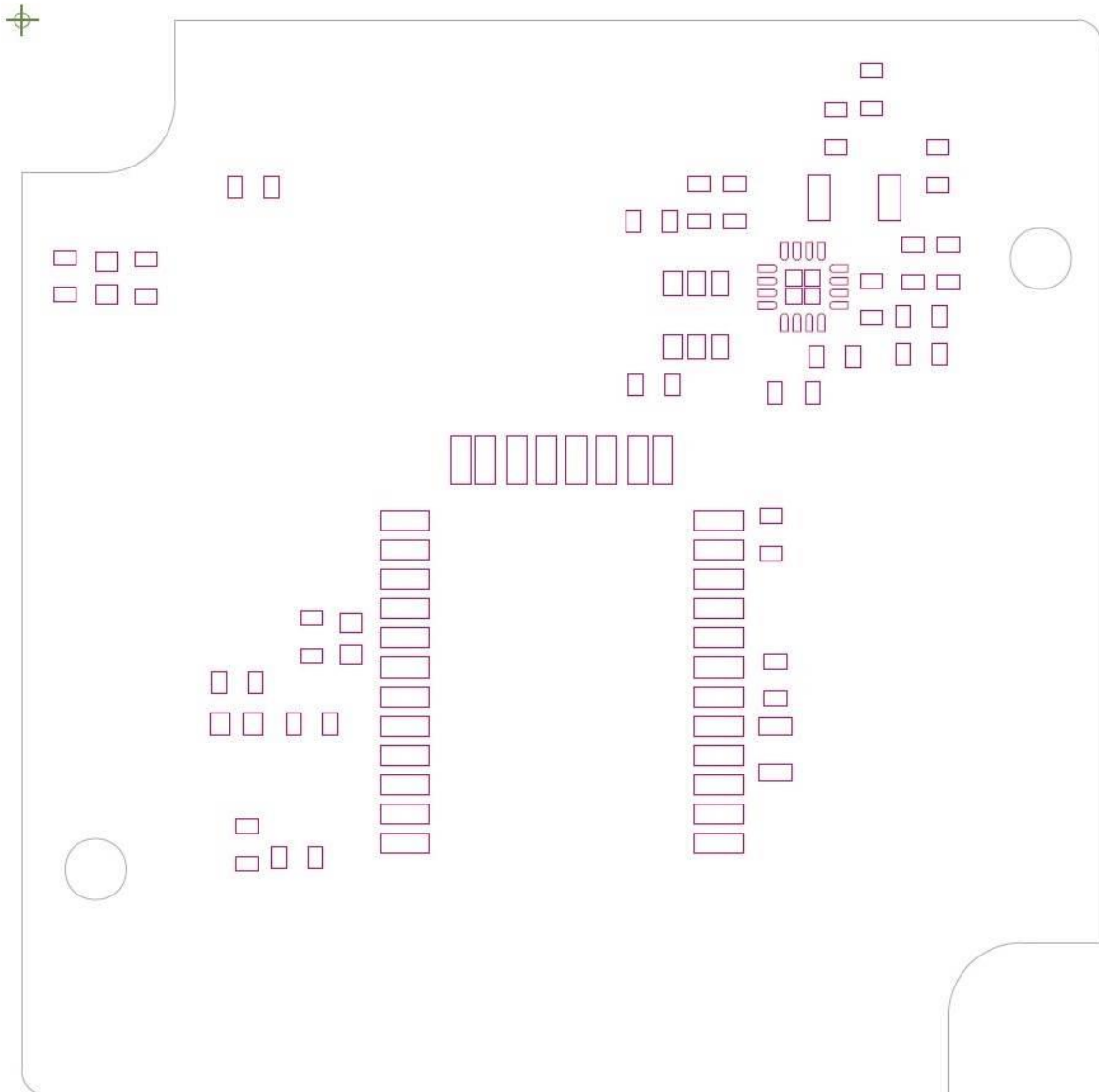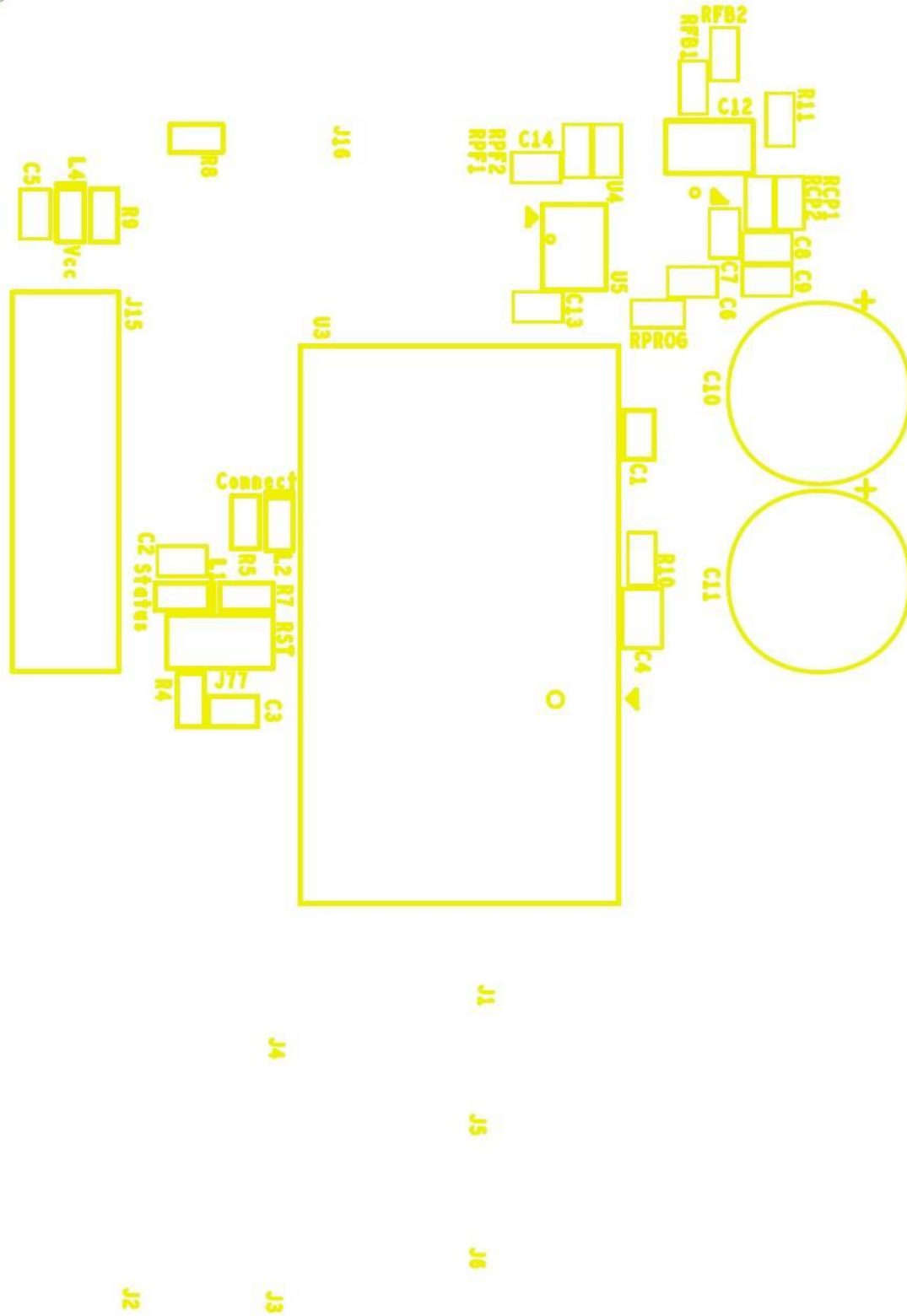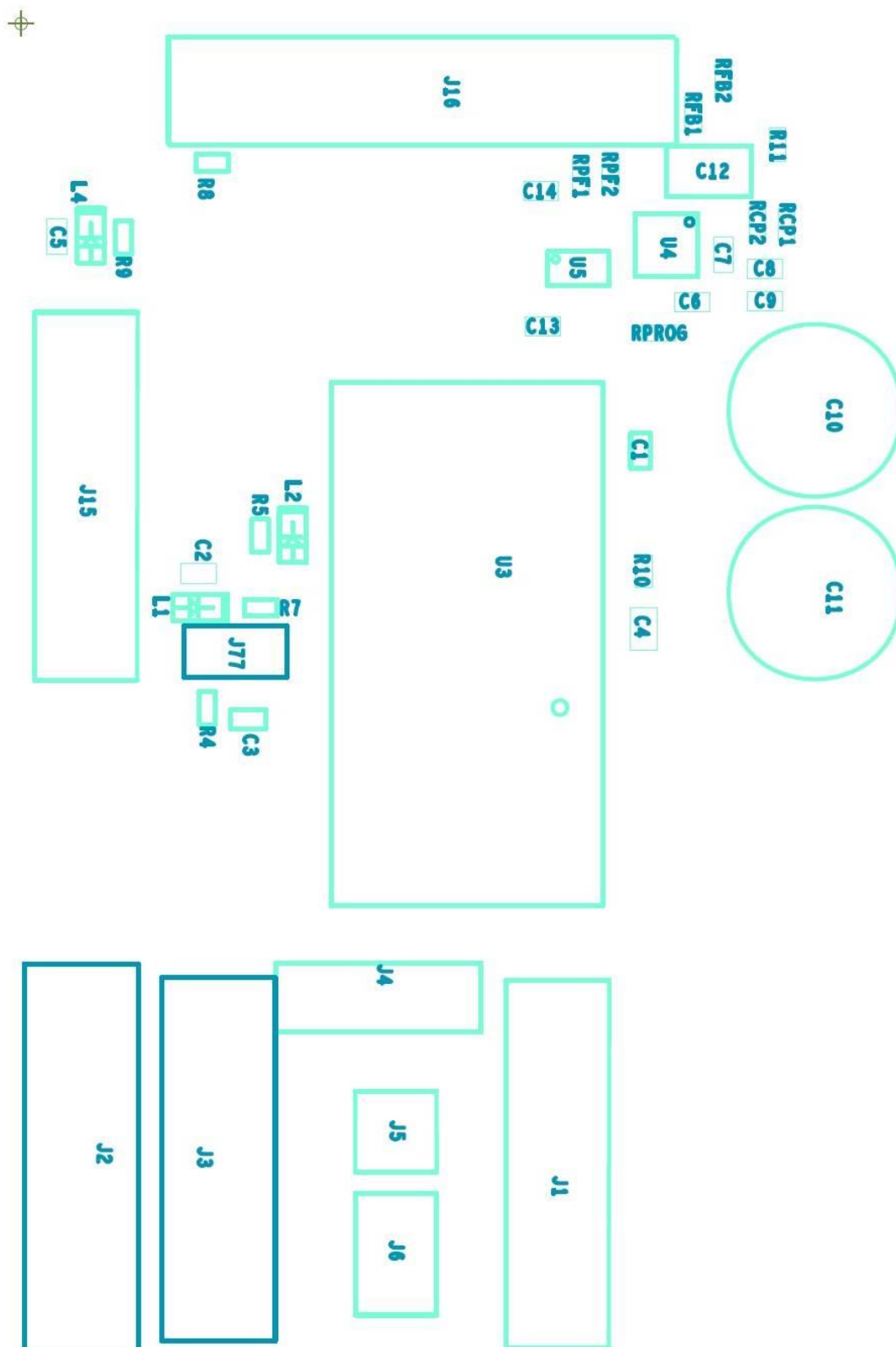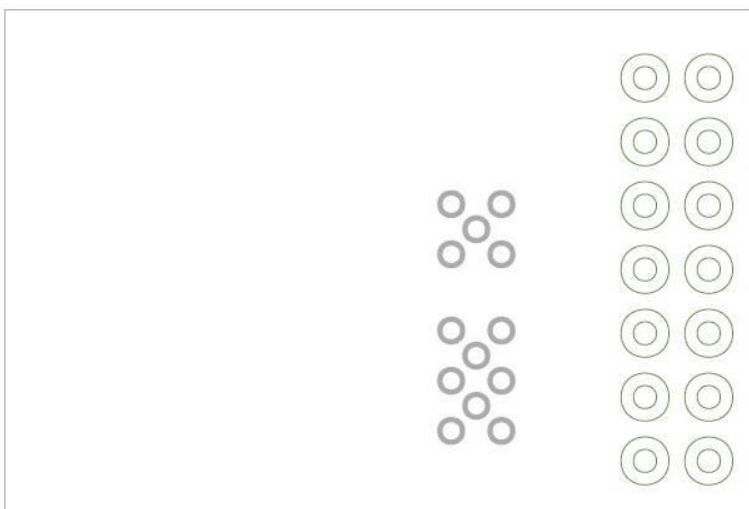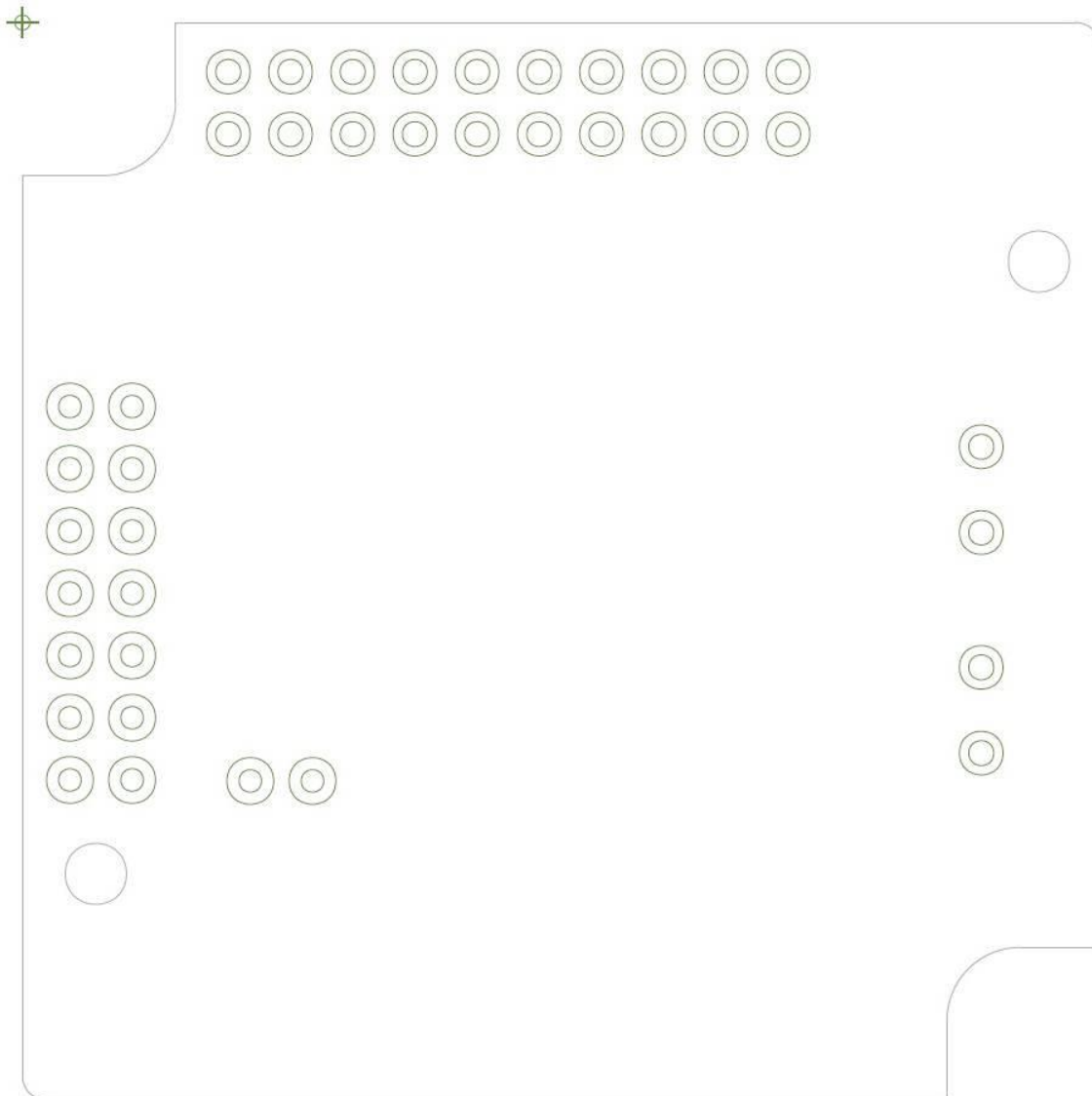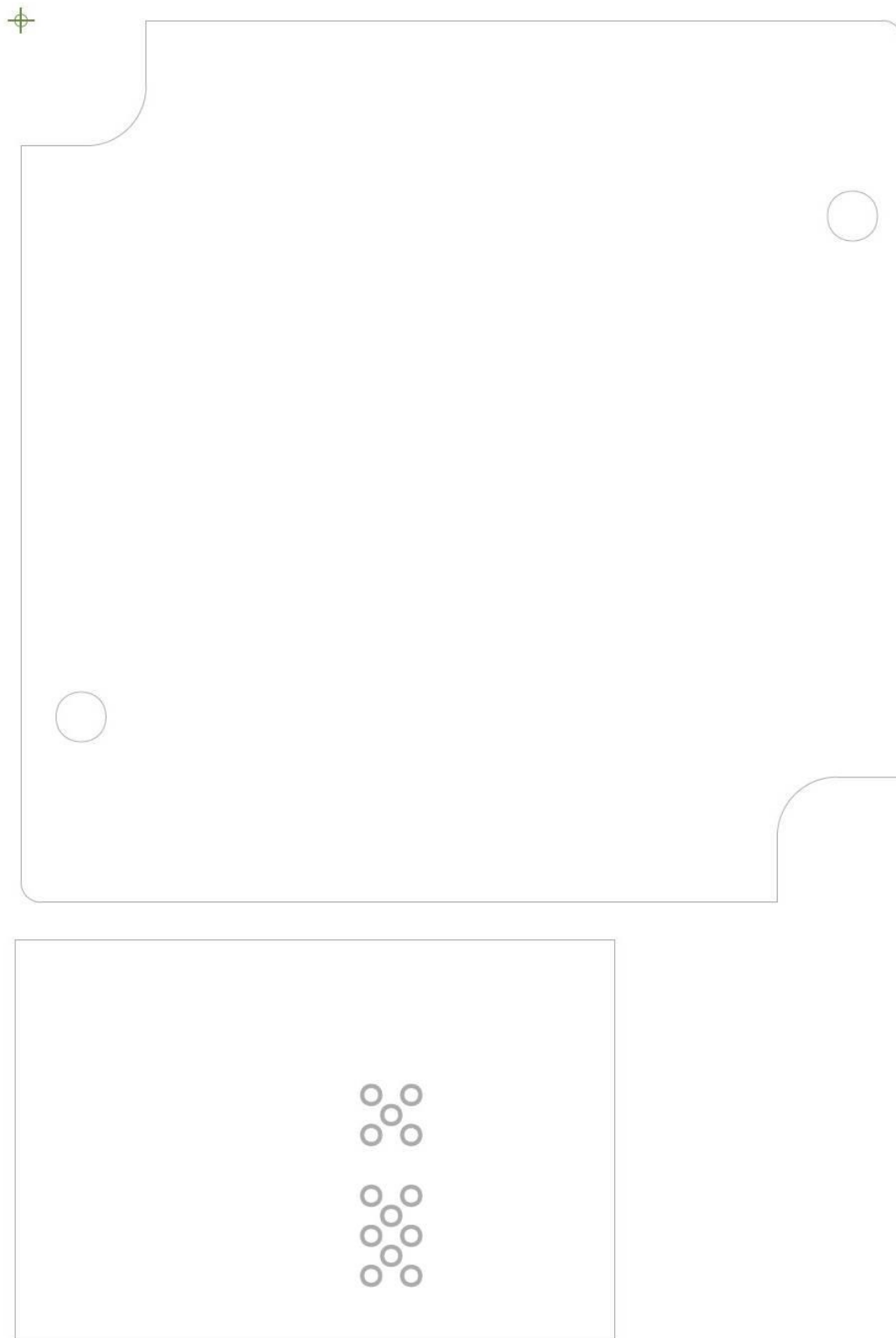## 1.4. ART FILM - PASTEMASK_TOP

1.5. ART FILM - SILKSCREEN_TOP

1.6. ART FILM - ASSEMBLY_TOP

1.7. ART FILM - SOLDERMASK_BOTTOM

1.8. ART FILM - BOARD_OUTLINE

1.9. MAIN.C Prueba prototipo real

```c
#include "asf.h"
#include "conf_board.h"
#include "delay.h"

#define STRING_EOL    "\r"
#define STRING_HEADER "-- USART Serial Example --\r\n" \
"-- "BOARD_NAME" --\r\n" \
"-- Compiled: "__DATE__" "__TIME__" --"STRING_EOL


static void configure_uart(void)
{
        const sam_uart_opt_t uart_console_settings = {

                sysclk_get_cpu_hz(),
                115200,
                0x00000800

        };

        sysclk_enable_peripheral_clock(UART1_ID);

        uart_init(UART1_MASTER_BASE, &uart_console_settings);

        uart_disable_interrupt(UART1_MASTER_BASE,0xffffffff);

        UART1_MASTER_BASE->UART_BRGR=0x00000023;

} // configure_console

static void configure_console(void)
{
        const usart_serial_options_t uart_serial_options = {
                .baudrate = CONF_UART_BAUDRATE,
                .paritytype = CONF_UART_PARITY
        };

        /* Configure console UART. */
        sysclk_enable_peripheral_clock(CONSOLE_UART_ID);
        stdio_serial_init(CONF_UART, &uart_serial_options);
}

int main (void)
{
        // Insert system clock initialization code here (sysclk_init()).
        sysclk_init();
        board_init();

        configure_console();

        puts(STRING_HEADER);

        /* Initialize the console UART. */
        configure_uart();
        int i;

        while(1){

                for(i=0;i<9;i++){

                        uart_write(UART1_MASTER_BASE,66);
                        delay_s(1);

                }
        }
}
```

1.10. Bill of materials

Part	Reference	VOLTAGE	PCB footprint	Quantity
100 nF	C1,C2,C3,C5,C13,C14	6.3V	C0603	6
10 uF	C4	6.3V	C0805	1
4.7 uF	C6	6.3V	C0603	1
2.2 uF	C7	10 V	C0603	1
0.1 uF	C8,C9	16V	C0603	2
3 F	C10,C11	2.7V	HV0820_Super_Cap	2
47 uF	C12	6.3 V	C1206	1
Connector_14Pins	J1,J15		CON14_B	2
PT8_4824_R	J2		SMD_HEADER_10	1
POLYMER	J3		SMD_HEADER_9	1
PT4P4_12606_RF	J4		SM08B	1
SERIALIZADOR_CON4	J5		CON4_SMD_BOTTOM	1
SERIALIZADOR_CON6	J6		CON6_SMD_BOTTOM	1
CON20A	J16		ARM_JTAG	1
CON2	J77		CON2	1
Chip_LED	L1,L2,L4		LED_0603	3
196K	RPF1,RPF2		R0603	2
3.83M	Rcp1		R0603	1
1.21M	Rcp2		R0603	1
255K	Rfb1		R0603	1
80.6K	Rfb2		R0603	1
33.2K	Rprog		R0603	1
1K	R4		R0603	1
220	R5,R7,R9		R0603	3
47K	R8		R0603	1
4k7	R10		R0603	1
0 homs	R11		R0603	1
RN_42_DS	U3		RN_42	1
LTC3226	U4		QFN16_B	1
FDC604P	U5		SuperSOT_6	1