



Block diagram:

# Snorkling clock

Variant: EUROPE

## Table of content

s.1 - Cover

s.2 - MCU

s.3 - FPGA

s.4 - Radio module

s.5 - Audio frontend

s.6 - Power supply

## Introduction

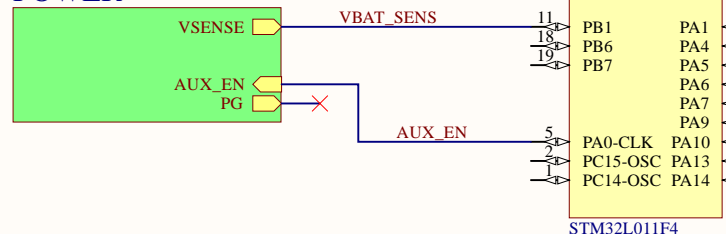
Text

## Specifications

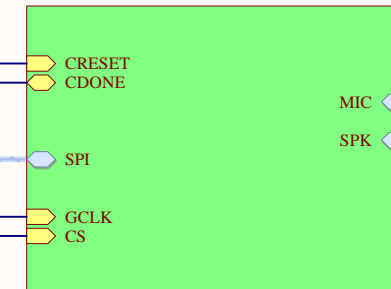
Text

▲ Add a Resistor in series with MOSI to avoid a short in case both MCU and FPGA act as masters

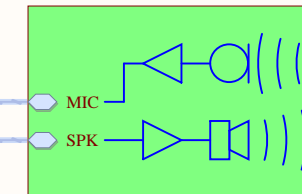
## POWER



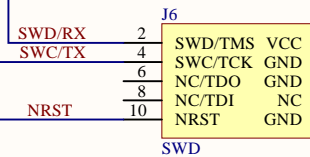
## FPGA



## AUDIO

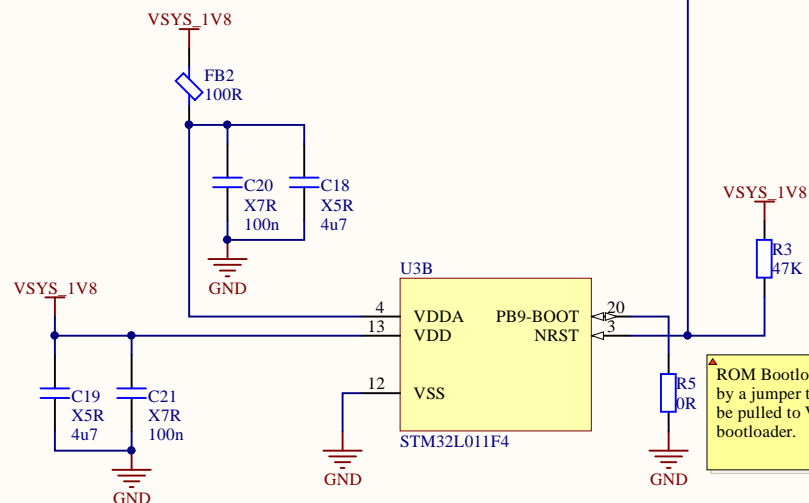


## RADIO



▲ Serial wire debug port  
SWD is shared with LPUART1

▲ TODO:  
\* Reset switch



▲ ROM Bootloader disabled by a jumper to ground. Can be pulled to VCC to enable bootloader.

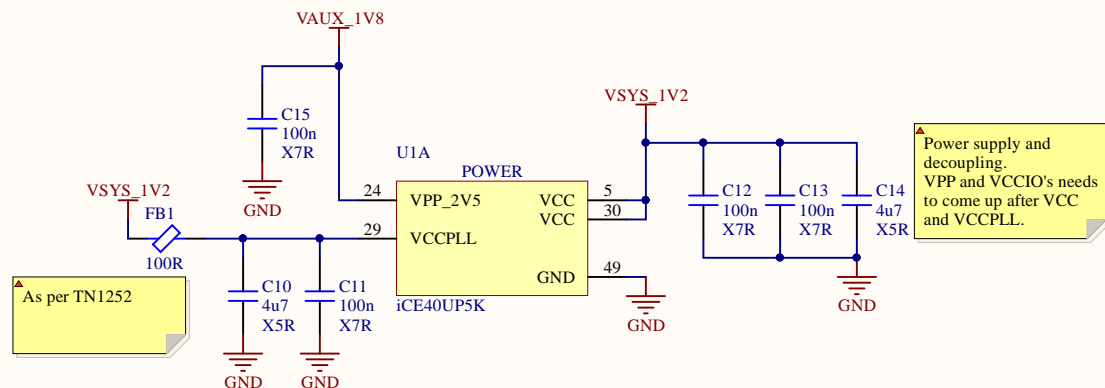
Title <b>Snorkling clock - MCU</b>		
Size: <b>A4</b>	Number: <b>2</b>	Revision: <b>1</b>
Date: <b>2018-10-14</b>	Time: <b>01:22:24</b>	Sheet <b>2</b> of <b>6</b>
Repository: <a href="https://github.com/gpa-fryk-industries/CDIO">https://github.com/gpa-fryk-industries/CDIO</a>		

GPA & FRYK Industries



A

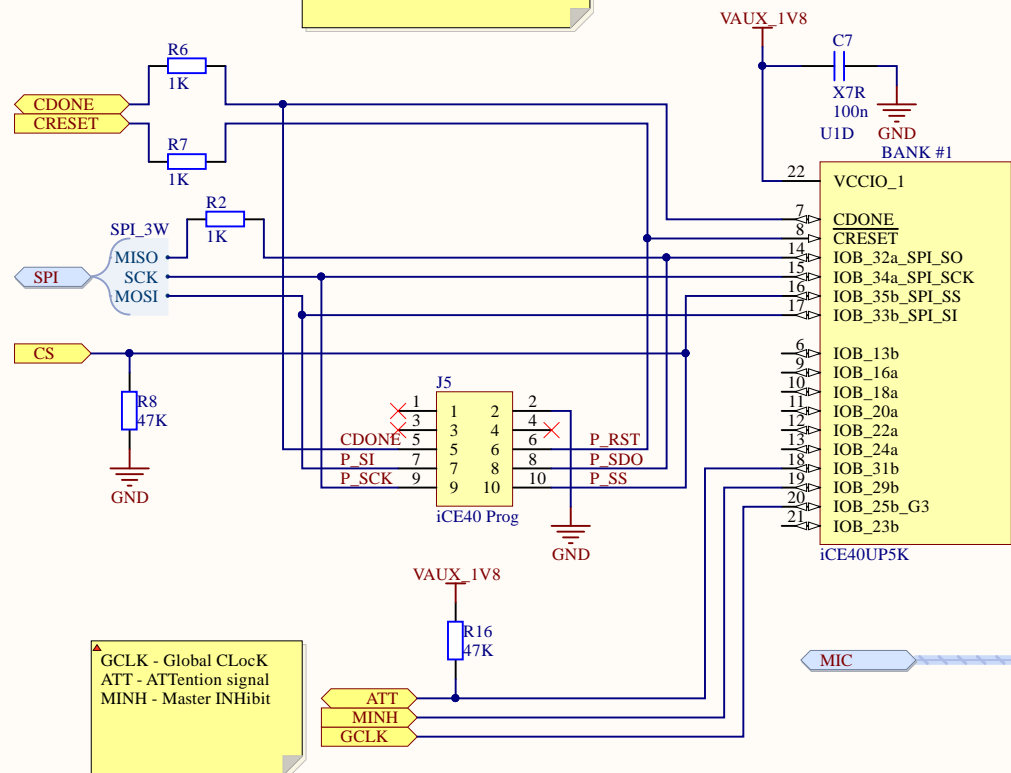
A



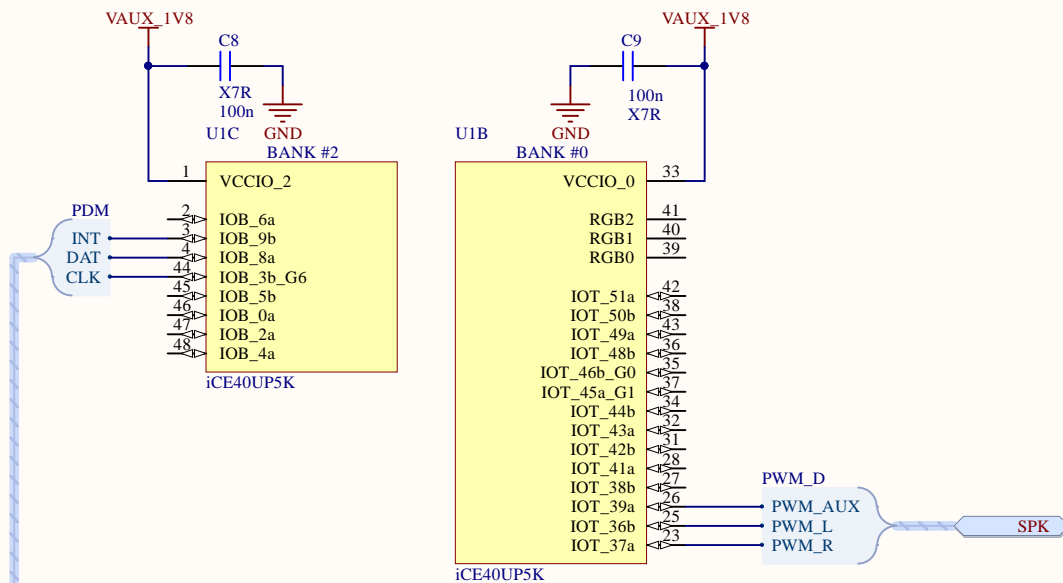
B

B

▲ SPI port is used to configure the FPGA from MCU. Once configured, the FPGA can either act as SPI master to read from the radio FIFOs or as a slave and receive data from the MCU.



▲ GCLK - Global CLock  
ATT - ATTention signal  
MINH - Master INHibit



D

D

Title **Snorkling clock - FPGA**

GPA &amp; FRYK Industries

Size: A4

Number:3

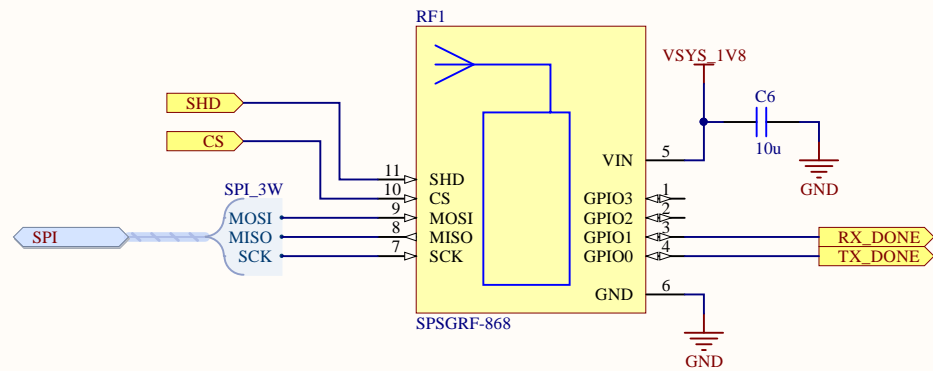
Revision:1

Date: 2018-10-14

Time: 01:22:24

Sheet3 of 6

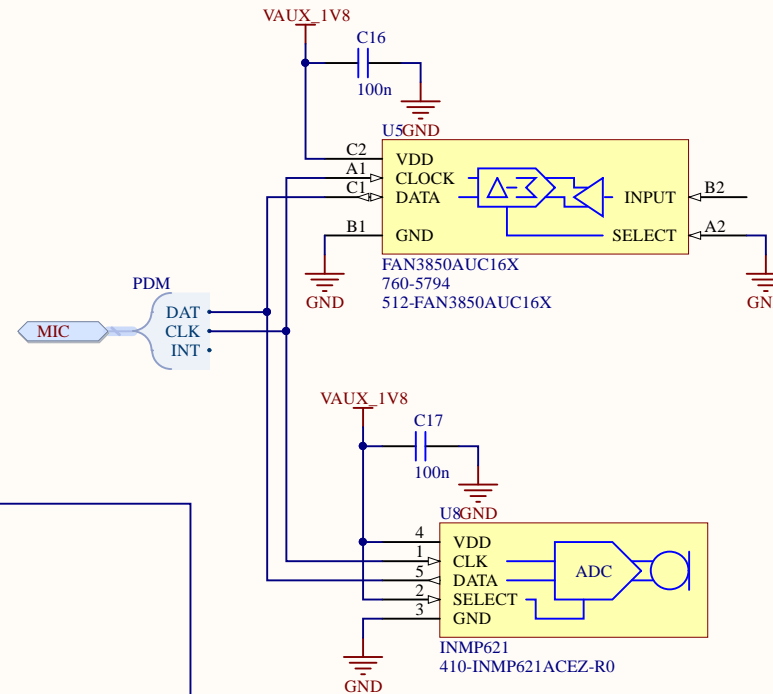
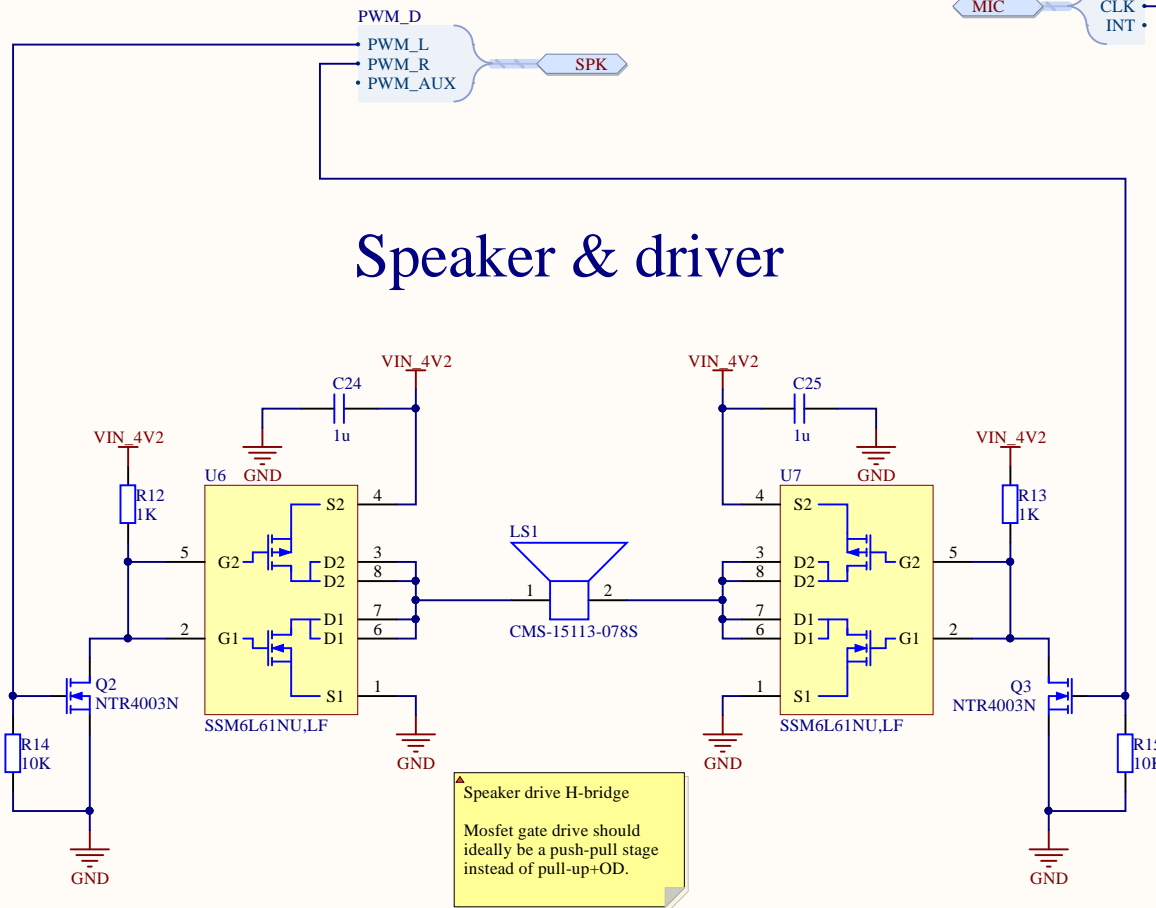
Repository: <https://github.com/gpa-fryk-industries/CDIO>



Title <b>Snorkling clock - Radio module</b>		
Size: <b>A4</b>	Number: <b>4</b>	Revision: <b>1</b>
Date: <b>2018-10-14</b>	Time: <b>01:22:24</b>	Sheet <b>4</b> of <b>6</b>
Repository: <a href="https://github.com/gpa-fryk-industries/CDIO">https://github.com/gpa-fryk-industries/CDIO</a>		

GPA & FRYK Industries





Title **Snorkling clock - Audio frontend**

GPA & FRYK Industries

Size: **A4**

Number: **5**

Revision: **1**

Date: **2018-10-14**

Time: **01:22:24**

Sheet **5** of **6**

Repository: <https://github.com/gpa-fryk-industries/CDIO>



