

## 2.25MHZ 2x800mA Dual Step-Down Converter with 1-Wire Interface in QFN

- CPLD  
XC2C64A-7VQG100C

Product Index > Integrated Circuits (ICs) > Embedded > CPLDs (Complex Programmable Logic Devices) > AMD XC2C64A-7VQG100C

**XC2C64A-7VQG100C**

Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

DigiKey Part Number: 122-1409-ND  
Manufacturer: AMD  
Manufacturer Product Number: XC2C64A-7VQG100C  
Description: IC CPLD 64MC 6.7NS 100VQFP  
Customer Reference:   
Datasheet: [Datasheet](#)  
EDA/CAD Models: [XC2C64A-7VQG100C Models](#)

**Product Attributes**

TYPE	DESCRIPTION	SELECT ALL
Category	<a href="#">Integrated Circuits (ICs)</a> <a href="#">Embedded</a> <a href="#">CPLDs (Complex Programmable Logic Devices)</a>	<input type="radio"/> <input type="radio"/> <input checked="" type="radio"/>
Manufacturer	AMD	<input type="checkbox"/>
Series	<a href="#">CoolRunner II</a>	<input type="checkbox"/>
Packaging	Tray	<input type="checkbox"/>
Part Status	Last Time Buy	<input type="checkbox"/>
DigiKey Programmable	Not Verified	<input type="checkbox"/>
Programmable Type	In System Programmable	<input type="checkbox"/>
Delay Time tpd(1) Max	6.7 ns	<input type="checkbox"/>

**In-Stock: 16,989**  
Can ship immediately  
Once available stock of this product has been depleted, manufacturer standard package and lead time will apply. [View Substitutes](#)  
Last Time Buy Date: 6/29/2024  
[Buy from EKOM in Turkey](#)

QUANTITY

[Add to List](#) [Add to Cart](#)

All prices are in USD

**Tray**

QUANTITY	UNIT PRICE	EXT PRICE
1	\$12.11000	\$12.11

Note: Due to DigiKey value-add services the packaging type may change when product is purchased at quantities beneath the standard package.

- CPLD NEDİR ?

PLD, dijital devrelerin tasarımı ve uygulaması için kullanılan programlanabilir bir lojik aygıttır. CPLD'ler, **FPGA'lar** (Field-Programmable Gate Arrays) gibi diğer programlanabilir lojik cihazlarla benzerlik gösterir, ancak bazı önemli farklılıklar vardır.

CPLD'nin Temel Özellikleri:

Yapı: CPLD'ler, birkaç programlanabilir lojik blokundan oluşur. Her blok, birçok temel lojik kapıyı (AND, OR, NOT gibi) içerir. Bu bloklar genellikle sabit bir yapının üstüne inşa edilir ve bloklar arası bağlantılar sabittir.

Programlama: CPLD'ler, programlanabilir bağlantılar ve lojik işlevler içerir. Bu programlama genellikle VHDL veya Verilog gibi donanım tanımlama dilleri kullanılarak yapılır.

Hız: CPLD'ler genellikle FPGA'lara göre daha hızlı çalışır. Bunun nedeni, CPLD'lerin daha basit ve daha az esnek yapılarından kaynaklanan daha kısa sinyal yollarıdır.

Kapasite: CPLD'ler, FPGA'lara kıyasla daha az lojik kapasiteye sahiptir. Bu, onları daha küçük ve daha basit uygulamalar için uygun hale getirir.

Güç Tüketimi: CPLD'ler genellikle daha düşük güç tüketir, bu da onları pil gücüyle çalışan veya enerji verimliliği önemli olan uygulamalar için ideal yapar.

Maliyet: CPLD'ler, FPGA'lara göre genellikle daha ucuzdur, özellikle daha basit devre tasarımları için.

- MAX5864**  
 Integrated Dual 8-Bit ADCs and Dual 10-Bit DACs

**MAX5864ETM+**

Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

**DigiKey Part Number**  
MAX5864ETM+ND

**Manufacturer**  
Analog Devices Inc./Maxim Integrated

**Manufacturer Product Number**  
MAX5864ETM+

**Description**  
IC AFE 4 CHAN 10BIT 48TQFN

**Manufacturer Standard Lead Time**  
21 Weeks

**Customer Reference**

**Detailed Description**  
4 Channel AFE 10 Bit 2.1 W 48-TQFN (7x7)

**EDA/CAD Models**  
[MAX5864ETM+ Models](#)

**In-Stock: 38**  
 Factory Stock: 86  
 Can ship immediately  
[Buy from EXCOM in Turkey](#)

**QUANTITY**

**Add to List** **Add to Cart**

All prices are in USD

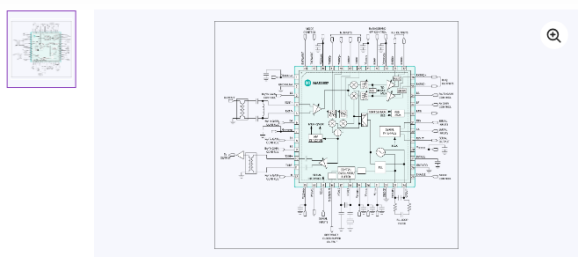
QUANTITY	UNIT PRICE	EXT PRICE
1	\$14.42000	\$14.42
10	\$13.25500	\$132.55
43	\$12.70581	\$546.35
129	\$11.19481	\$1,444.13
258	\$10.64539	\$2,746.51
516	\$9.95860	\$5,138.64
1,032	\$9.13444	\$9,426.74

**Manufacturers Standard Package**  
 Note: Due to DigiKey value-add services the packaging type may change when product is purchased at quantities beneath the standard package.

**Product Attributes**

	TYPE	DESCRIPTION	SELECT ALL
Category		Integrated Circuits (ICs) Data Acquisition Analog Front End (AFE)	<input type="radio"/>
Manufacturer		Analog Devices Inc./Maxim Integrated	<input type="checkbox"/>
Series		-	<input type="checkbox"/>
Packaging		Tube	<input type="checkbox"/>
Part Status		Active	<input type="checkbox"/>
Number of Bits		10	<input type="checkbox"/>
Number of Channels		4	<input type="checkbox"/>

- MAX2837**  
 2.3GHz to 2.7GHz Wireless Broadband RF Transceiver

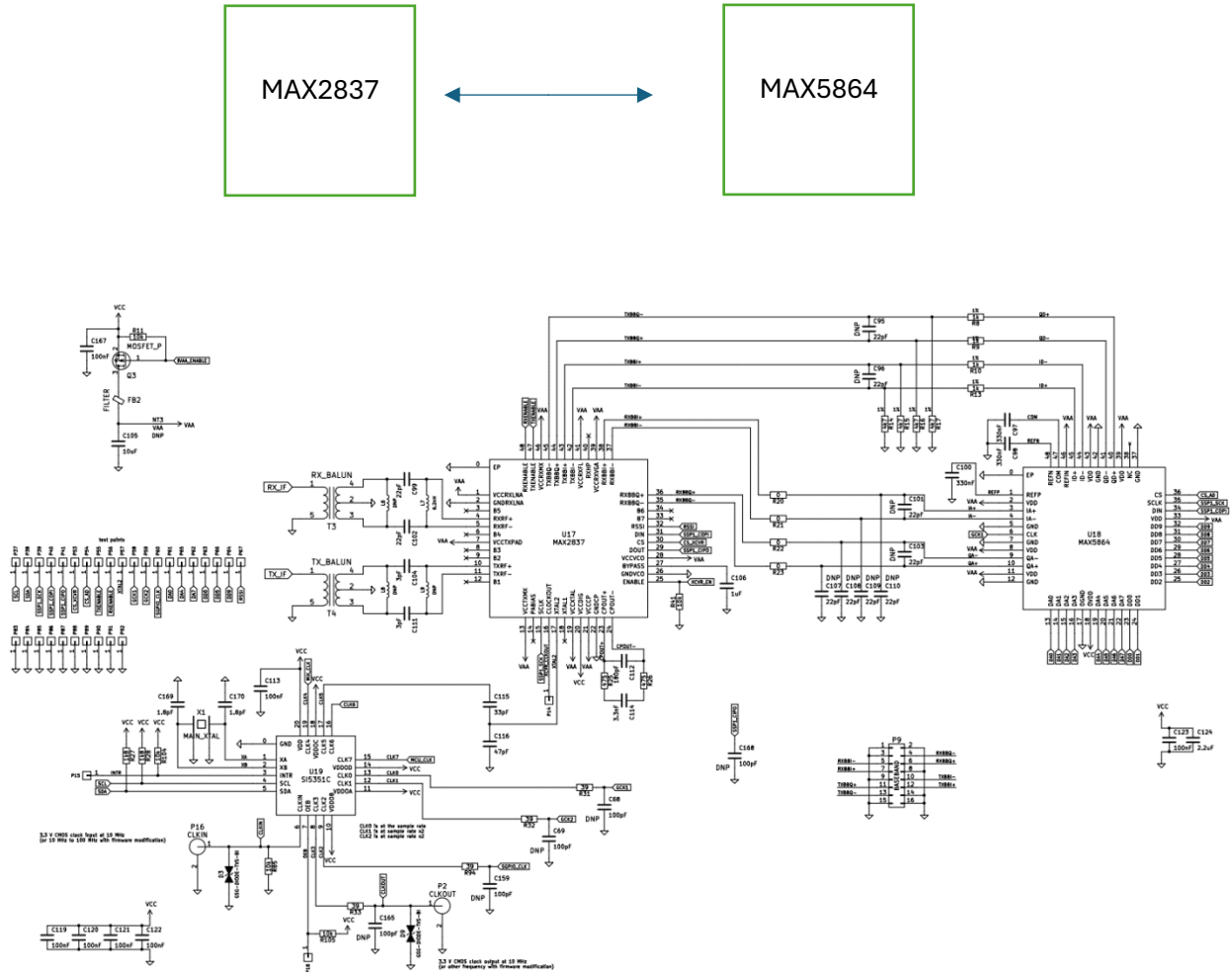


Not the part you were looking for? [Go To Product Selection Table](#) →

- Features**

  - 2.3GHz to 2.7GHz Wideband Operation
  - Complete RF Transceiver, PA Driver, and Crystal Oscillator
  - 0dBm Linear OFDM Transmit Power
  - 70dB Tx Spectral Emission Mask
  - 2.3dB Rx Noise Figure
  - Tx/Rx I/Q Error and LO Leakage Detection
  - Monolithic Low-Noise VCO with -39dBc Integrated Phase Noise
  - Programmable Rx I/Q Lowpass Channel Filter
  - Programmable Tx I/Q Lowpass Anti-Aliasing Filter
  - Sigma-Delta Fractional-N PLL with 20Hz Step Size
- 45dB Tx Gain-Control Range
  - 94dB Receive Gain-Control Range
  - 60dB Analog RSSI Instantaneous Dynamic Range
  - 4-Wire SPI Digital Interface
  - I/Q Analog Baseband Interface
  - Digitally Tuned Crystal Oscillator
  - On-Chip Digital Temperature Sensor Read-Out
  - +2.7V to +3.6V Transceiver Supply
  - Low-Power Shutdown Current
  - Small 48-Pin Thin QFN Package (6mm x 6mm x 0.8mm)

- BASEBAND



- SI5351C

## IC CLOCK GENERATOR

Image shown is a representation only. Exact specifications should be obtained from the product data sheet.

**SI5351C-B-GM**

DigiKey Part Number: 336-2402-ND

Manufacturer: Skyworks Solutions Inc.

Manufacturer Product Number: SI5351C-B-GM

Description: IC CLOCK GENERATOR 200FN

Manufacturer Standard Lead Time: 8 Weeks

Customer Reference:

Detailed Description: Clock Generator IC 200MHz 1 20-VFQFN Exposed Pad

Datasheet: [Datasheet](#)

EDA/CAD Models: [SI5351C-B-GM Models](#)

**Product Attributes**

TYPE	DESCRIPTION	SELECT ALL
Category	Integrated Circuits (ICs) Clock/Timing Clock Generators, PLLs, Frequency Synthesizers	<input type="radio"/>
Manufacturer	Skyworks Solutions Inc.	<input type="checkbox"/>
Series	MultiSynth™	<input type="checkbox"/>
Packaging	Strip <input type="checkbox"/>	<input type="checkbox"/>

**In-Stock: 1,143**

Can ship immediately

[Buy from EKM in Turkey](#)

QUANTITY

[Add to List](#) [Add to Cart](#)



All prices are in USD

**Strip**

QUANTITY	UNIT PRICE	EXT PRICE
1	\$5.49000	\$5.49
10	\$4.92800	\$49.28
25	\$4.65880	\$116.47
100	\$4.03750	\$403.75
250	\$3.83044	\$957.61
500	\$3.43704	\$1,718.52
1,000	\$2.89870	\$2,898.70
2,500	\$2.75376	\$6,884.40

- RFFC5072  
RF MIXER

RFFC5072TR13



+3 images

Images are for reference only  
See Product Specifications

Share

Mouser No: 772-RFFC5072


Mfr. No: RFFC5072TR13

Mfr.: Qorvo

Customer No:

Description: RF Mixer 85 - 4200 MHz LO


Datasheet: [RFFC5072TR13 Datasheet \(PDF\)](#)

ECAD Model:  Request Free CAD Models

Download the free [Library Loader](#) to convert this file for your ECAD Tool. [Learn more about the ECAD Model.](#)


☐ Compare Product

[Add To Project](#) | [Add Notes](#)

Specifications		
Product Attribute	Attribute Value	Select Attribute
Manufacturer:	Qorvo	<input type="checkbox"/>
Product Category:	RF Mixer	
RoHS:	 <a href="#">Details</a>	
RF Frequency:	30 MHz to 6 GHz	<input type="checkbox"/>
NF - Noise Figure:	15 dB	<input type="checkbox"/>
LO Frequency:	85 MHz to 4.2 GHz	<input type="checkbox"/>
IF Frequency:	30 MHz to 6 GHz	<input type="checkbox"/>

In Stock: 3.451

Stock: 3.451 Can Dispatch Immediately

Factory Lead Time: 16 Weeks 

Enter Quantity: 

Buy

Minimum: 1 Multiples: 1

Pricing (EUR)

Qty.	Unit Price	Ext. Price
Cut Tape / MouseReel™ †		
1	27,53 €	27,53 €
25	19,99 €	499,75 €
100	16,22 €	1.622,00 €
250	13,21 €	3.302,50 €
500	10,93 €	5.465,00 €
1.000	10,68 €	10.680,00 €
Full Reel (Order in multiples of 2500)		
2.500	9,10 €	22.750,00 €

† A MouseReel™ fee of 5,00 € will be added and calculated in your basket. All MouseReel™ orders are non-cancellable and non-returnable.

FEATURED PRODUCTS





QPX0001 6-26GHz I/Q Mixer

Compact, wideband I/Q GaAs mixer housed in a 3.9mm x 3.9mm air cavity surface mount ceramic package.

[Learn More](#)



- USB device firmware update (DFU)

It is possible to use a USB Device Firmware Upgrade (DFU) method to load firmware into RAM. This is normally only required to recover a device that has had faulty firmware loaded, but it can also be useful for firmware developers.

For loading firmware into RAM with DFU you will need:

<http://dfu-util.sourceforge.net/>

To start up HackRF One in DFU mode, hold down the DFU button while powering it on or while pressing and releasing the RESET button. Release the DFU button after the 3V3 LED illuminates.

A .dfu file is built by default when building firmware. Alternatively you can use a known good .dfu file from a release package. Load the firmware into RAM with:

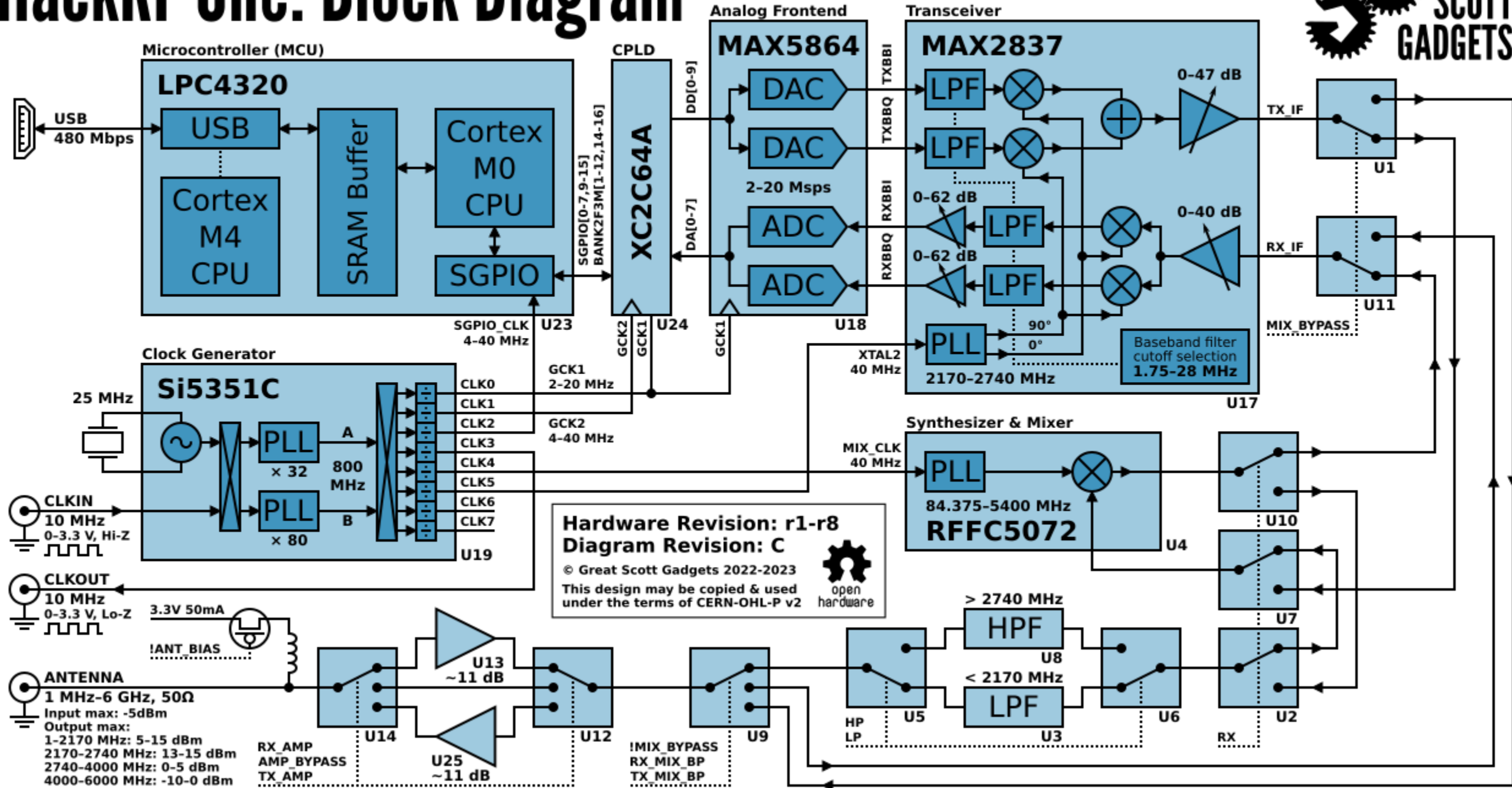
```
$ dfu-util --device 1fc9:000c --alt 0 --download hackrf_usb.dfu
```

<https://dfu-util.sourceforge.net/>

[https://www.usb.org/sites/default/files/DFU\\_1.1.pdf](https://www.usb.org/sites/default/files/DFU_1.1.pdf)

<https://www.nxp.com/docs/en/application-note/AN4370.pdf>

# HackRF One: Block Diagram













hackrf-master > host > hackrf-tools > src

↑↓ Sırala ▾

☰ Görünüm ▾

...




Ad	Değiştirme tarihi
 CMakeLists.txt	7.03.2024 19:42
 hackrf_biast.c	7.03.2024 19:42
 hackrf_clock.c	7.03.2024 19:42
 hackrf_cpldjtag.c	7.03.2024 19:42
 hackrf_debug.c	7.03.2024 19:42
 hackrf_info.c	7.03.2024 19:42
 hackrf_operacake.c	7.03.2024 19:42
 hackrf_spiflash.c	7.03.2024 19:42
 hackrf_sweep.c	7.03.2024 19:42
 hackrf_transfer.c	7.03.2024 19:42

hackrf-master > host > libhackrf > src

↑↓ Sırala ▾

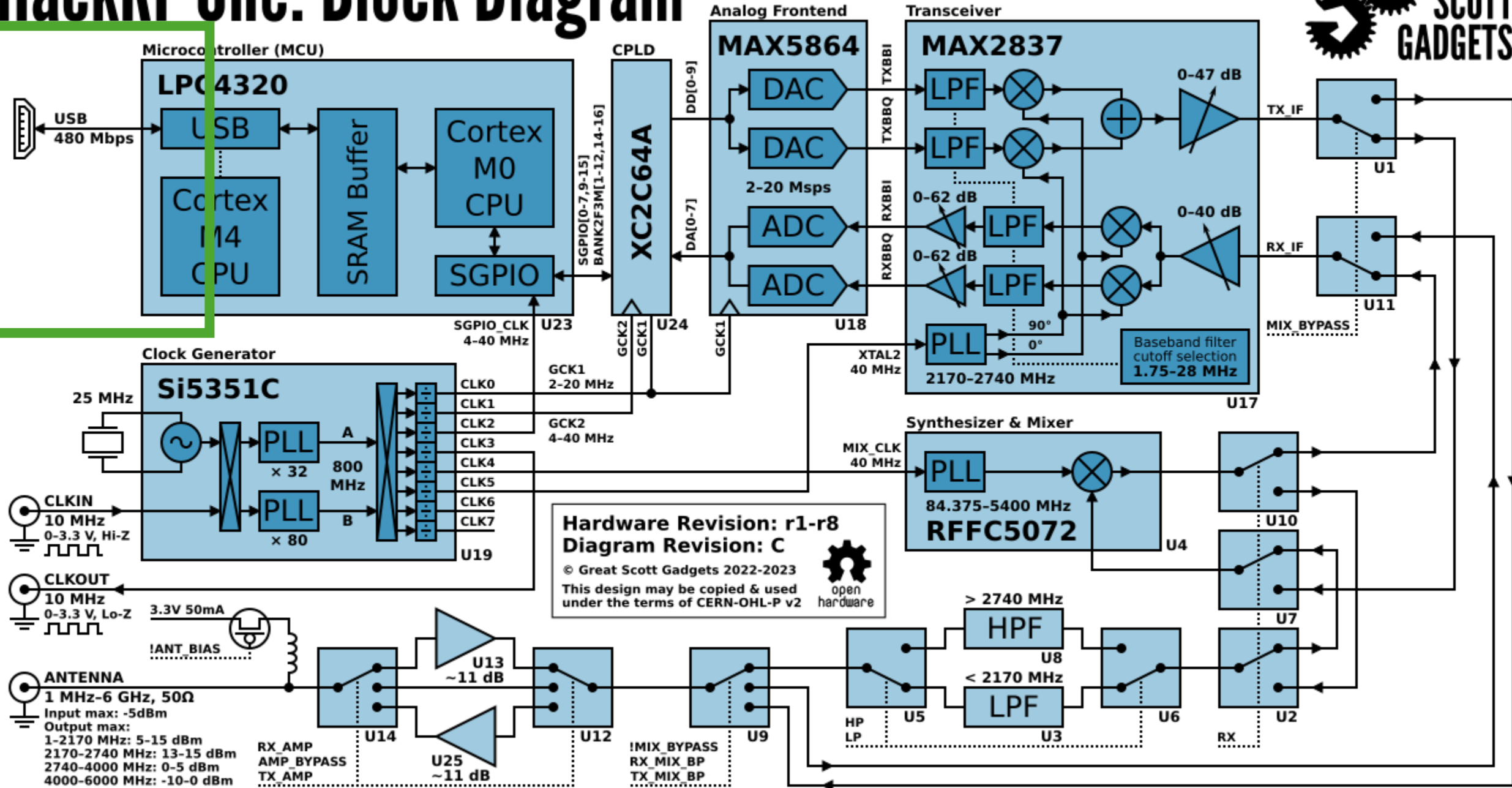
☰ Görünüm ▾

...

d	Değiştirme tarihi	Tür
 CMakeLists.txt	7.03.2024 19:42	Metin B
 hackrf.c	7.03.2024 19:42	C Kayna
 hackrf.h	7.03.2024 19:42	C Head



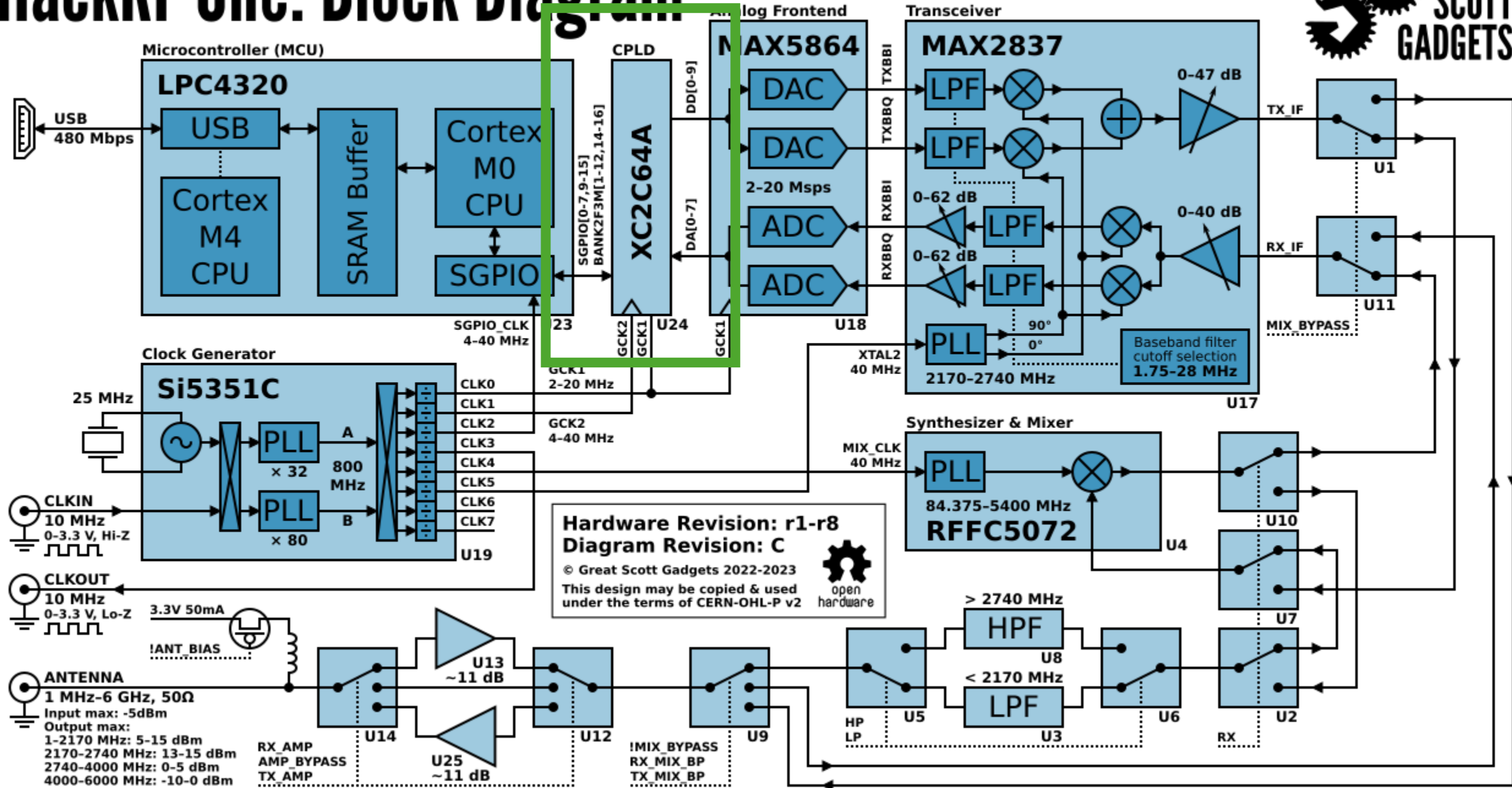
# HackRF One: Block Diagram



# USB transfers

```
C: > Users > yusuf > Desktop > masaüstü2 > hackrf-master > host > libhackrf > src > C hackrfc
136 struct hackrf_device {
137     hackrf_sample_block_cb_fn callback;
138     volatile bool
139     | transfer_thread_started; /* volatile shared between threads (read only) */
140     pthread_t transfer_thread;
141     volatile bool streaming; /* volatile shared between threads (read only) */
142     void* rx_ctx;
143     void* tx_ctx;
144     volatile bool do_exit;
145     unsigned char buffer[TRANSFER_COUNT * TRANSFER_BUFFER_SIZE];
146     bool transfers_setup; /* true if the USB transfers have been setup */
147     pthread_mutex_t transfer_lock; /* must be held to cancel or restart transfers */
148     volatile int active_transfers; /* number of active transfers */
149     pthread_cond_t all_finished_cv; /* signalled when all transfers have finished */
150     bool flush;
151     struct libusb_transfer* flush_transfer;
152     hackrf_flush_cb_fn flush_callback;
153     hackrf_tx_block_complete_cb_fn tx_completion_callback;
154     void* flush_ctx;
155 };
156
157 typedef struct {
158     uint32_t bandwidth_hz;
159 } max2837_ft_t;
160
161 static const max2837_ft_t max2837_ft[] = {
162     {1750000},
163     {2500000},
164     {3500000},
165     {5000000},
166     {5500000},
167     {6000000},
168     {7000000},
169     {8000000},
170     {9000000},
171 }
```

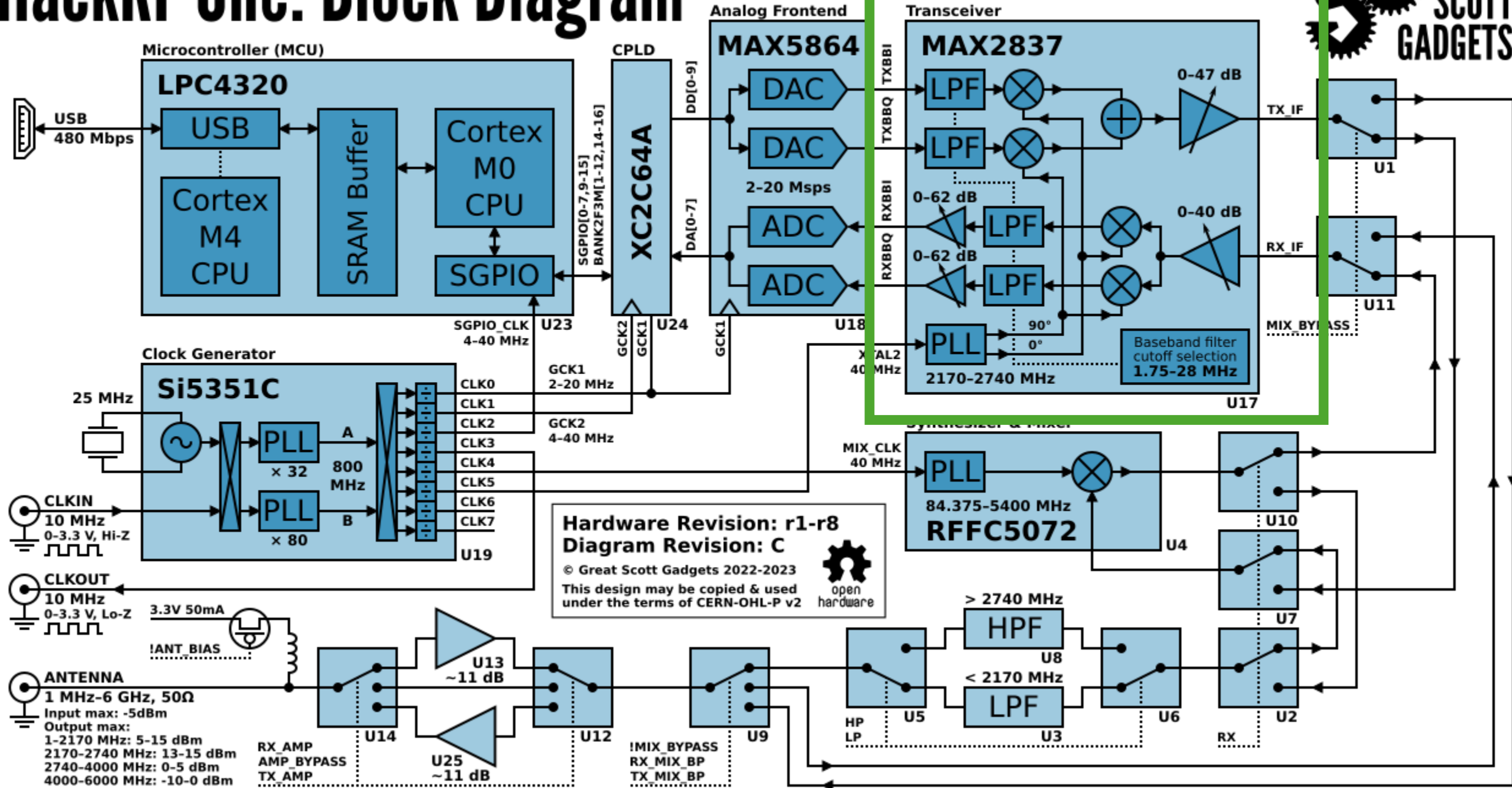
# HackRF One: Block Diagram



# CPLD

```
hackrf_clock.c  C hackrf_info.c  C hackrf_operacake.c  C hackrf_spiflash.c  C hackrf_sweep.c  C hackrf_debug.c  C hackrf_transfer.c  C hackrf_cpldjtag.c X ...
C: > Users > yusuf > Desktop > masaüstü2 > hackrf-master > host > hackrf-tools > src > C hackrf_cpldjtag.c
40  // Input file should not be any longer than this
41  #define MAX_XSVF_LENGTH 0x10000
42  #define PACKET_LEN      4096
43
44  uint8_t data[MAX_XSVF_LENGTH];
45
46  static struct option long_options[] = {
47      {"xsvf", required_argument, 0, 'x'},
48      {"device", required_argument, 0, 'd'},
49      {"help", no_argument, 0, 'h'},
50      {0, 0, 0, 0},
51  };
52
53  int parse_int(char* s, uint32_t* const value)
54  {
55      uint_fast8_t base = 10;
56      char* s_end;
57      long long_value;
58
59      if (strlen(s) > 2) {
60          if (s[0] == '0') {
61              if ((s[1] == 'x') || (s[1] == 'X')) {
62                  base = 16;
63                  s += 2;
64              } else if ((s[1] == 'b') || (s[1] == 'B')) {
65                  base = 2;
66                  s += 2;
67              }
68          }
69      }
70
71      s_end = s;
72      long_value = strtol(s, &s_end, base);
73      if ((s != s_end) && (*s_end == 0)) {
74          *value = long_value;
75          return HACKRF_SUCCESS;
76      }
77  }
```

# HackRF One: Block Diagram

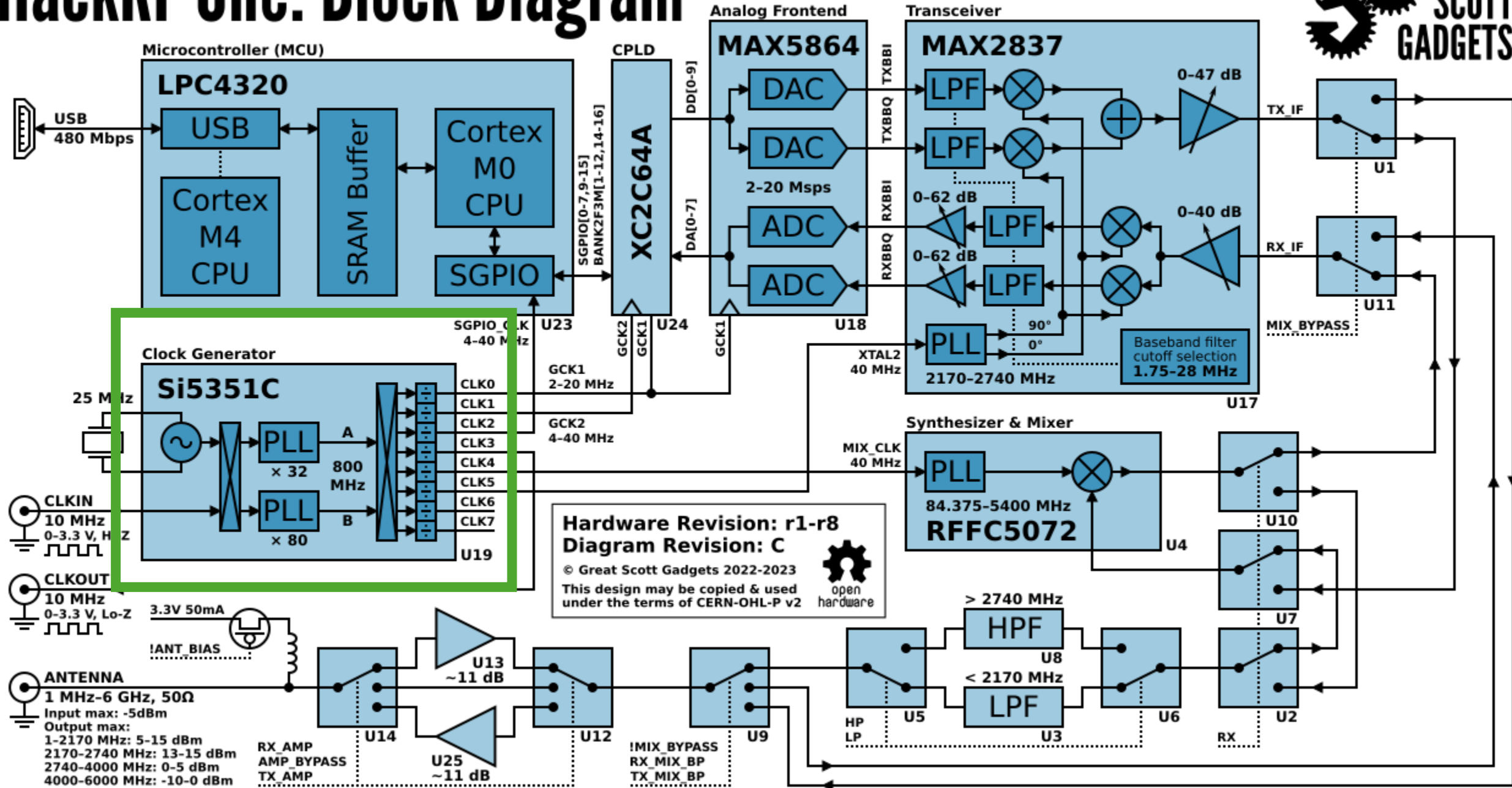


# MAX2837

```
hackrf_clock.c  C hackrf_info.c  C hackrf_operacake.c  C hackrf_spiflash.c  C hackrf_sweep.c  C hackrf_debug.c X  C hackrf_transfer.c  C hackrf_cpuidtag.c  ...
C: > Users > yusuf > Desktop > masaüstü2 > hackrf-master > host > hackrf-tools > src > C hackrf_debug.c
41  {
65  }
66  }
67
68  int max2837_read_register(hackrf_device* device, const uint16_t register_number)
69  {
70      uint16_t register_value;
71      int result =
72          hackrf_max2837_read(device, (uint8_t) register_number, &register_value);
73
74      if (result == HACKRF_SUCCESS) {
75          printf("[%2d] -> 0x%03x\n", register_number, register_value);
76      } else {
77          printf("hackrf_max2837_read() failed: %s (%d)\n",
78                hackrf_error_name(result),
79                result);
80      }
81      return result;
82  }
83
84  int max2837_read_registers(hackrf_device* device)
85  {
86      uint16_t register_number;
87      int result = HACKRF_SUCCESS;
88
89      for (register_number = 0; register_number < 32; register_number++) {
90          result = max2837_read_register(device, register_number);
91          if (result != HACKRF_SUCCESS) {
92              break;
93          }
94      }
95      return result;
96  }
97
98  int max2837_write_register(
99      hackrf_device* device
```



# HackRF One: Block Diagram



# Si 5351c

```
C: > Users > yusuf > Desktop > masaüstü2 > hackrf-master > host > hackrf-tools > src > C hackrf_clock.c

40  {
62  } else {
63      return HACKRF_ERROR_INVALID_PARAM;
64  }
65  }
66
67  int si5351c_read_register(hackrf_device* device, const uint16_t register_number)
68  {
69      uint16_t register_value;
70      int result = hackrf_si5351c_read(device, register_number, &register_value);
71
72      if (result == HACKRF_SUCCESS) {
73          printf("[%3d] -> 0x%02x\n", register_number, register_value);
74      } else {
75          printf("hackrf_si5351c_read() failed: %s (%d)\n",
76                hackrf_error_name(result),
77                result);
78      }
79
80      return result;
81  }
82
83  int si5351c_write_register(
84      hackrf_device* device,
85      const uint16_t register_number,
86      const uint16_t register_value)
87  {
88      int result = HACKRF_SUCCESS;
89      result = hackrf_si5351c_write(device, register_number, register_value);
90
91      if (result == HACKRF_SUCCESS) {
92          printf("0x%02x -> [%3d]\n", register_value, register_number);
93      } else {
94          printf("hackrf_si5351c_write() failed: %s (%d)\n",
95                hackrf_error_name(result),
```

89. Satır, 27. Sütun (4 seçildi) Sekme Boyutu: 4 UTF-8 LF C