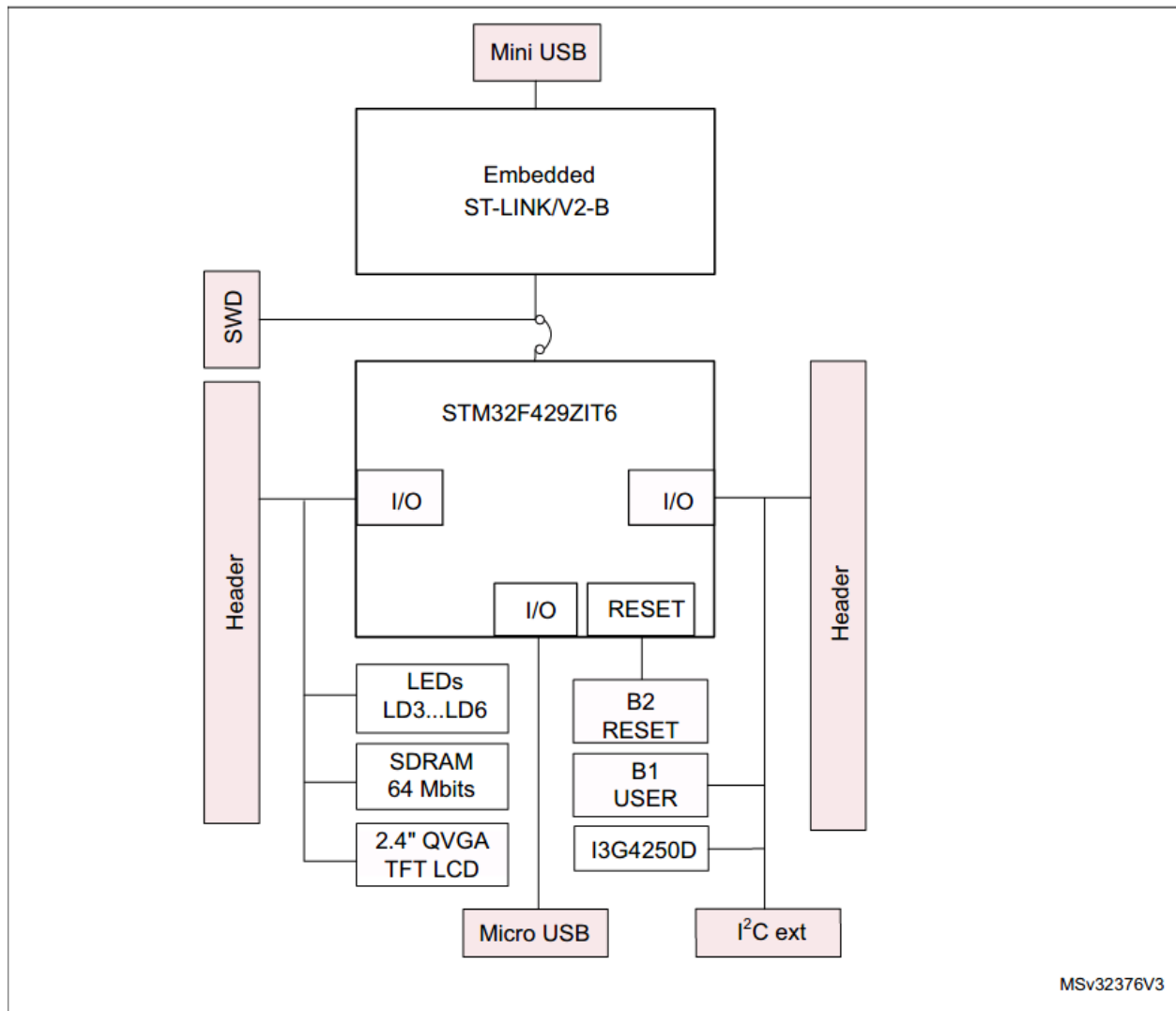


Project Board Comparison

	Final Project	Assignment
Eval Board	32F429IDISCOVERY	MIMXRT1010-EVK
Processor	STM32F429ZIT6	MIMXRT1011DAE5A
Processor Family	ARM Cortex M4	ARM Cortex M7
Max Clock Frequency	180 MHz	500 MHz
Flash	2 MB	64 KB
Ram	256 KB	128 KB
Other memory	64 Mb SDRAM	128 Mb QSPI Flash
ADC	24x12b	15x12b
Peripherals	<ul style="list-style-type: none"> - 2.4" QVGA TFT LCD (SPI/RGB) - ST MEMS motion sensor (SPI) - Two push-buttons (GPIO) 	<ul style="list-style-type: none"> - Audio codec (I2S) - 4-pole audio headphone jack - Microphone - Optional Ecompass (I2C)
User Manual	UM1670	MIMXRT1010EVKHUG (login req)
Application Note	AN3990 Upgrading STM32F4DISCOVERY board firmware using a USB key	AN13206 : Modifying debug firmware on i.MX RT boards with LPC4322 debug probe
Board Cost	<ul style="list-style-type: none"> - Digikey : \$29.90 - Mouser : \$29.90 	<ul style="list-style-type: none"> - Digikey : \$44.09 - Mouser : \$44.09
Board In Stock	<ul style="list-style-type: none"> - Digikey : 10 in stock - Mouser : 35 in stock 	<ul style="list-style-type: none"> - Digikey : 76 in stock - Mouser : 331 in stock
Processor Cost	<ul style="list-style-type: none"> - Digikey : \$20.60 - Mouser : \$20.60 	<ul style="list-style-type: none"> - Digikey : \$6.71 - Mouser : \$7.01
Processor In Stock	<ul style="list-style-type: none"> - Digikey : 0 - Mouser : 0 (53 weeks) 	<ul style="list-style-type: none"> - Digikey : 0 - Mouser : 0 (112 weeks)

32F429IDISCOVERY

Board Block Diagram

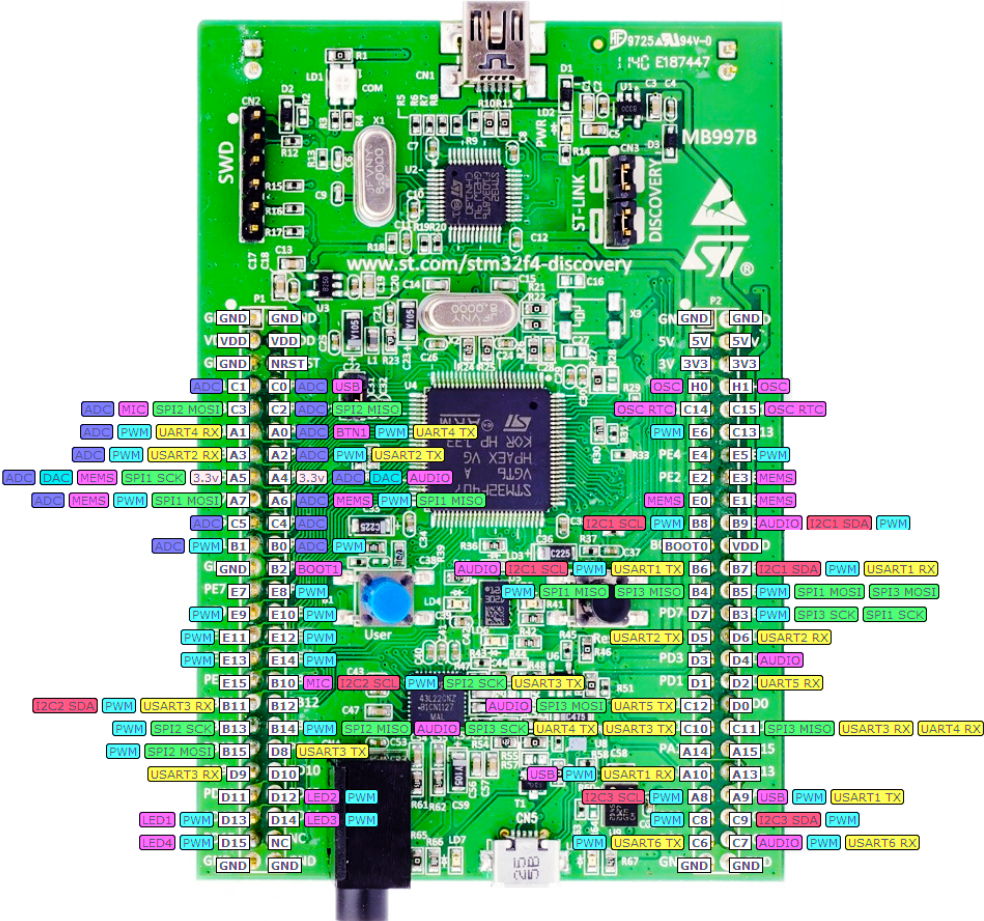


- The male headers P1 and P2 can connect the STM32F429 Discovery board to a standard prototyping/wrapping board. STM32F429ZIT6 GPIOs are available on these connectors. P1 and P2 can also be probed by an oscilloscope, a logic analyzer, or a voltmeter
- I2C External Interface

External Interface

P1

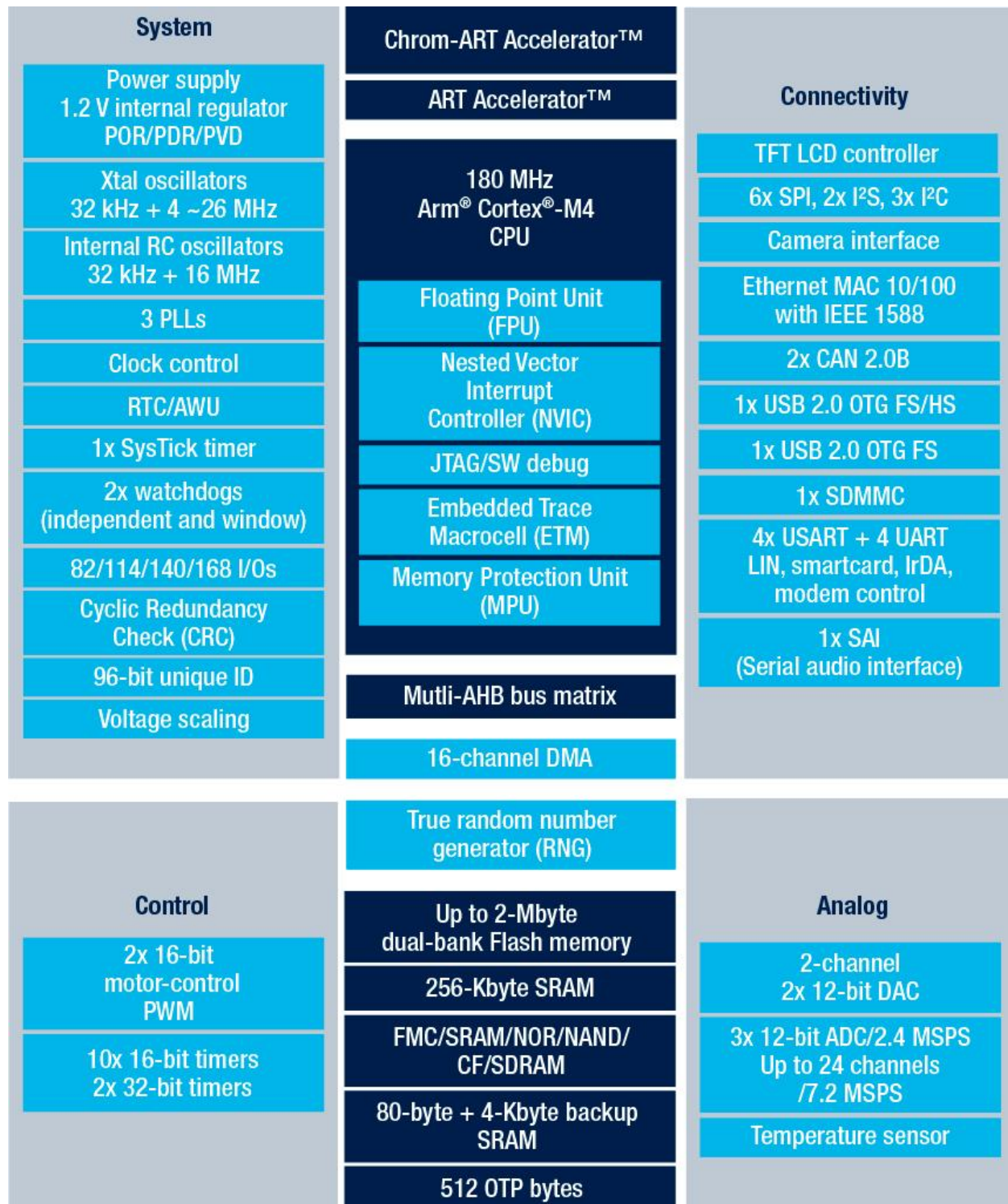
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37	38
39	40
41	42
43	44
45	46
47	48
49	50



P2

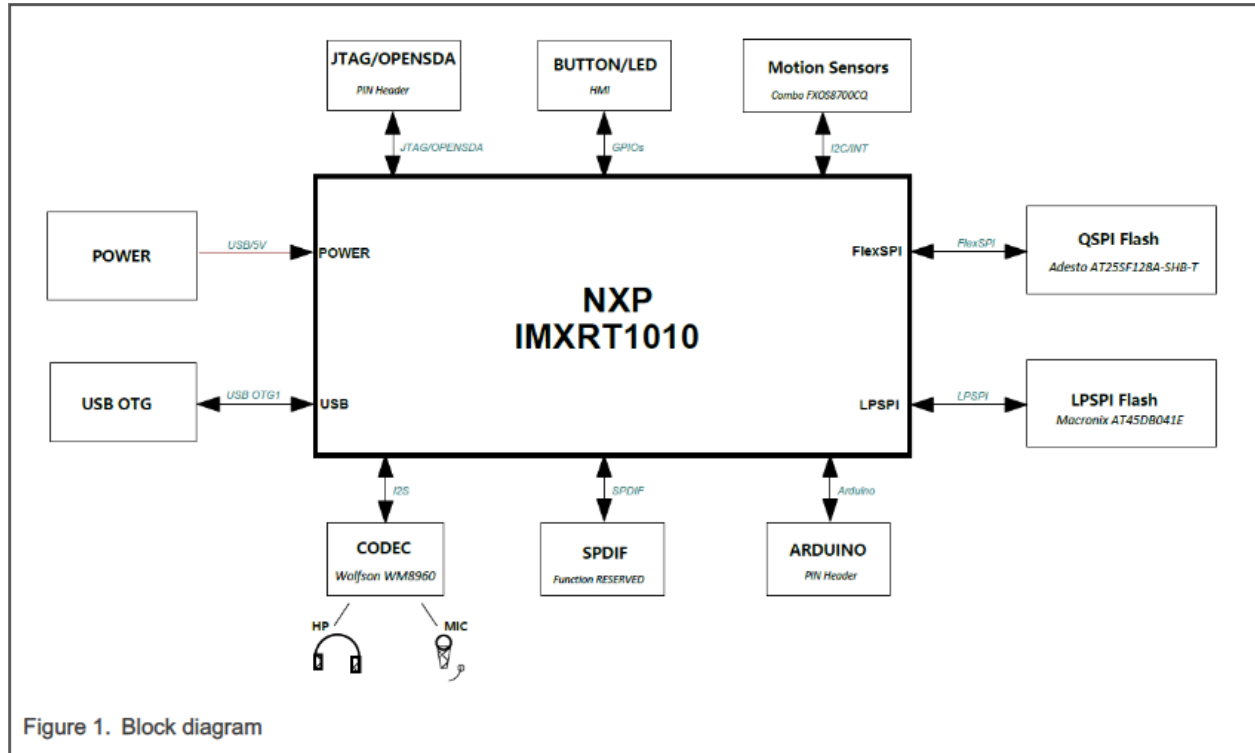
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41	42
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45	46
47	48
49	50

Processor Block Diagram



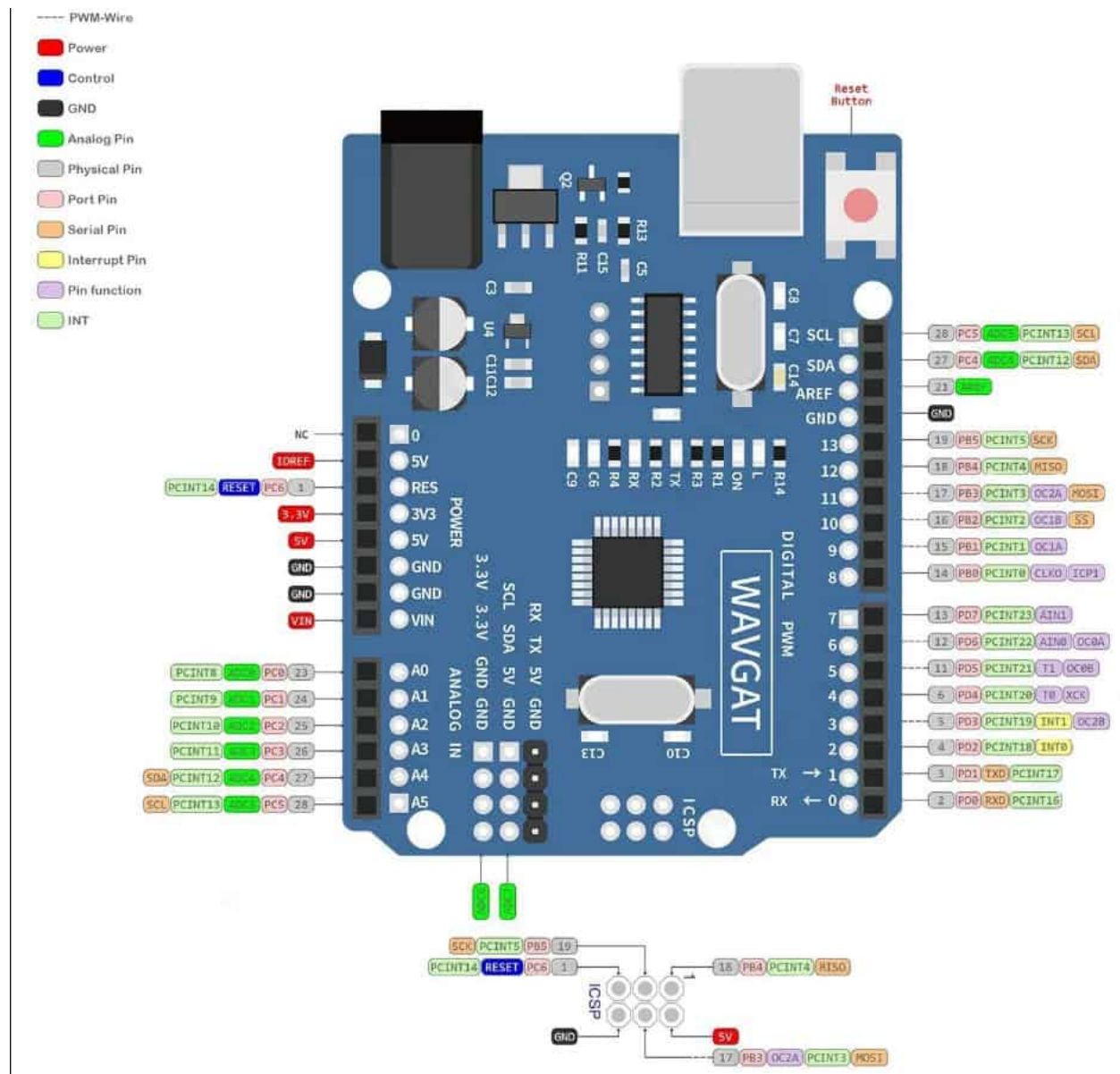
[MIMXRT1010-EVK](#)

Board Block Diagram



- Arduino Interface for expansion

External Interface



Processor Block Diagram

