

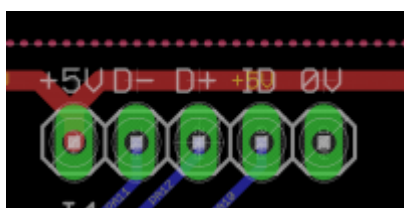
# wCoreF4 PCB

This is the carrier board for the Waveshare Core407v. It performs breakout functions of all of the standard ports as per the design based on the STM32 Discovery.

## Schematic

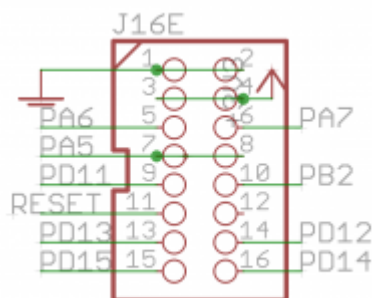
The circuit is mostly identical to what was drawn previously. The following parts are different:

### USB entry (J1)



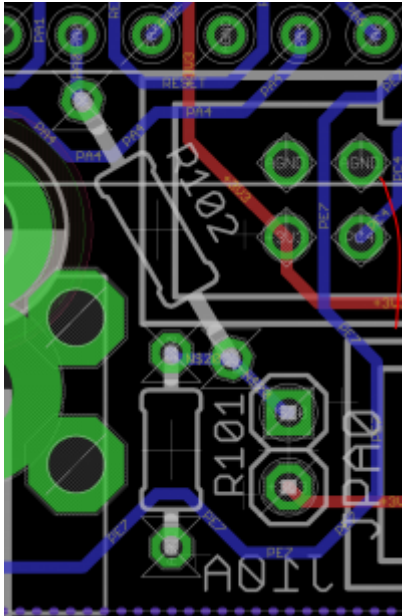
This header supplies +5V, 0V, USB data and the ID state. Normally it will be connected to the [USB module](#) by a short cable.

### Extended port (J16E)



The original J16 functionality is preserved, but extra pins are available on a IDC16 header. These include the Reset signal and pins normally controlling LEDs. This header is normally connected to the [RES-SD module](#).

### User button (JPA0)



This jumper replaces the “bootloader” functionality of the Discovery board's blue button. It could be wired to an external panel control if needed.

## BOM v1.0

Type	Qty	Value	Package	Parts	Mouser	Reichelt	Conrad	Other
<b>resistors</b>								
	2	220R 5%	THT	R7A, R8A				
	2	220R 5%	1206	R7B, R8B				
	1	330R 5%	THT	R102				
	4	1k 5%	1206	R7B1-4				
	2	1k 5%	THT	R11, R13				
	1	10k 5%	THT	R12				
	1	220k 5%	THT	R101				
<b>pots</b>								
	2	10k	6*5mm vert	P1, P2				
<b>capacitors</b>								
	3	100n	1206	C1A, C1B, C2				
<b>diodes</b>								
	1	1N4148	THT					
<b>transistors</b>								
	1	BC337	TO-92					
<b>ICs</b>								
	2	74HCT125	SOIC		595-SN74HCT125DR			Ensure HCT
	1	74HC595	SOIC	T1				
<b>Headers</b>								
	2	1*2	male					
	1	1*3	male					

Type	Qty	Value	Package	Parts	Mouser	Reichelt	Conrad	Other
<b>resistors</b>								
	1	1*5	male					or wire directly
	9	2*5	male					
	3	2*8	male					
	2	2*8	female					
<b>Hardware</b>								
	4	M3 spacer	8mm(?)					
<b>MCU breakout</b>								
	1	Waveshare Core 407v						

## Versions

v1.0: first release.

## Assembly

## License

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