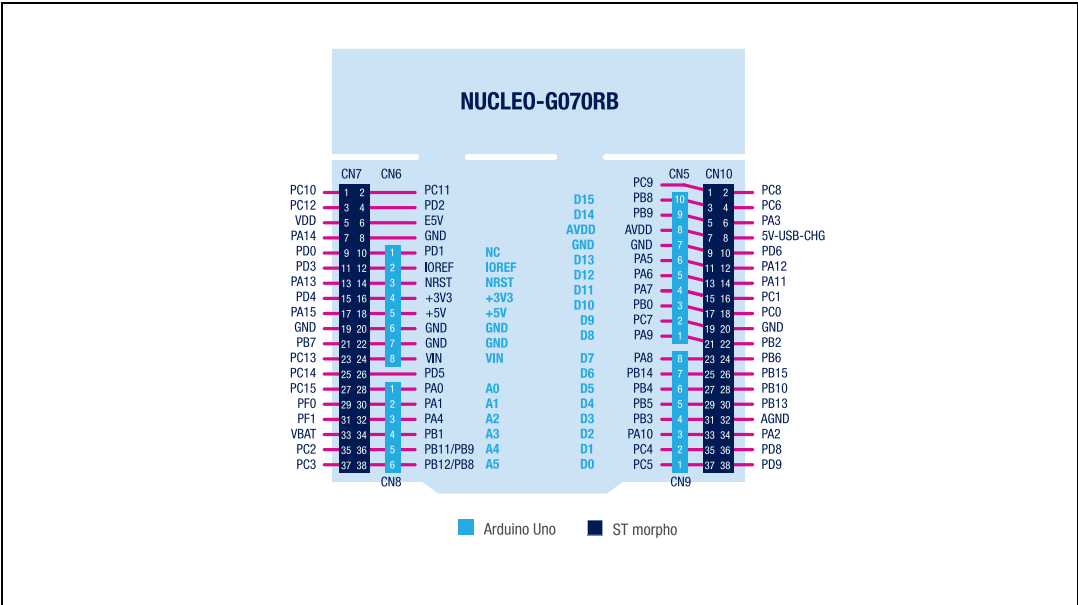The related pinout for the ARDUINO® connector is shown in *Figure 15* and *Figure Note:* and listed in *Table 12*.

Figure 15. STM32 Nucleo-64 boards ARDUINO® connector pinout

Note: ARDUINO® Uno V3 D0 and D1 signals are connected by default on USART1 (MCU I/O PC4 and PC5).

Table 12. ARDUINO® connector pinout

Connector	Pin number	Pin name	Signal name	STM32 pin	Function
CN6	1	NC	-	-	Reserved for test
	2	IOREF	-	-	I/O reference
	3	NRST	NRST	NRST	RESET
	4	3V3	-	-	3.3 V input/output
	5	5V	-	-	5 V output
	6	GND	-	-	GND
	7	GND	-	-	GND
	8	VIN	-	-	7 V to 12 V power input
CN8	1	A0	ADC	PA0	ARD_A0_IN0
	2	A1	ADC	PA1	ARD_A1_IN1
	3	A2	ADC	PA4	ARD_A2_IN4
	4	A3	ADC	PB1	ARD_A3_IN9
	5	A4	ADC	PB9 or PB11	ARD_A4_IN15|| I2C_1_SCL
	6	A5	ADC	PB8 or PB12	ARD_A5_IN16|| I2C_1_SDA

Table 12. ARDUINO® connector pinout (continued)

| Connector	Pin number	Pin name	Signal name	STM32 pin	Function
CN5	10	SCL/D15	ARD_D15	PB8	I2C_1_SCL
	9	SDA/D14	ARD_D14	PB9	I2C_1_SDA
	8	AVDD	VREF+	-	VREF+
	7	GND	-	-	GND
	6	SCK/D13	ARD_D13	PA5	SPI_1_SCK
	5	MISO/D12	ARD_D12	PA6	SPI_1_MISO
	4	PWM/MOSI/D11	ARD_D11	PA7	SPI_1_MOSI || TIM_14_CH1
	3	PWM/CS/D10	ARD_D10	PB0	SPI_1_NSS || TIM_3_CH3
	2	PWM/D9	ARD_D9	PC7	TIM_3_CH2
	1	D8	ARD_D8	PA9	IO
CN9	8	D7	ARD_D7	PA8	IO
	7	PWM/D6	ARD_D6	PB14	TIM_15_CH1
	6	PWM/D5	ARD_D5	PB4	TIM_3_CH1
	5	D4	ARD_D4	PB5	IO
	4	PWM/D3	ARD_D3	PB3	TIM_1_CH2
	3	D2	ARD_D2	PA10	IO
	2	TX/D1	ARD_D1	PC4	UART_1_TX
	1	RX/D0	ARD_D0	PC5	UART_1_RX

7.3 CN7 and CN10 ST morpho connectors

The CN7 and CN10 ST morpho connectors are male pin headers accessible on both sides of the STM32 Nucleo-64 board (see *Figure 16*). All signals and power pins, except VDD_CORE 1.2 V of the STM32, are available on the ST morpho connectors. These connectors can also be probed by an oscilloscope, logical analyzer, or voltmeter.

Figure 16. ST morpho connectors
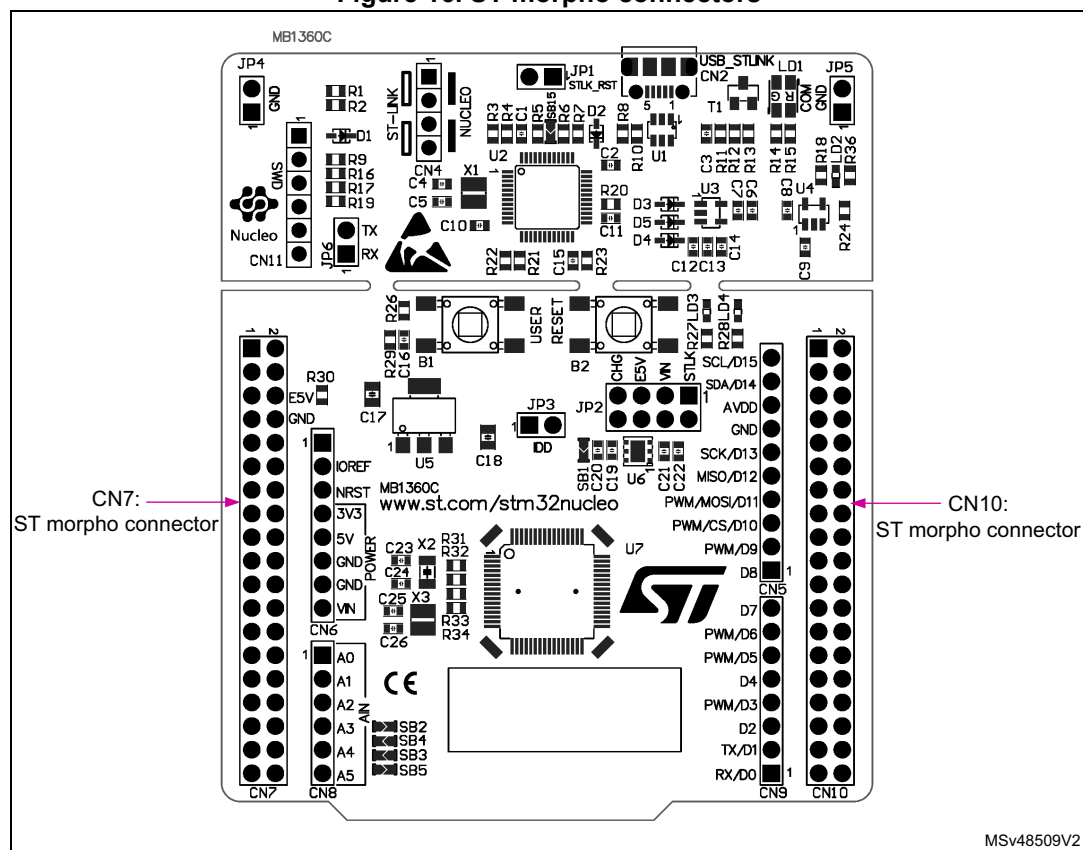
The related pinout and the MCU assignment for the ST morpho connectors are listed in *Figure 17* and *Figure Note:*.

Figure 17. STM32 Nucleo-64 boards ST morpho connector pinout
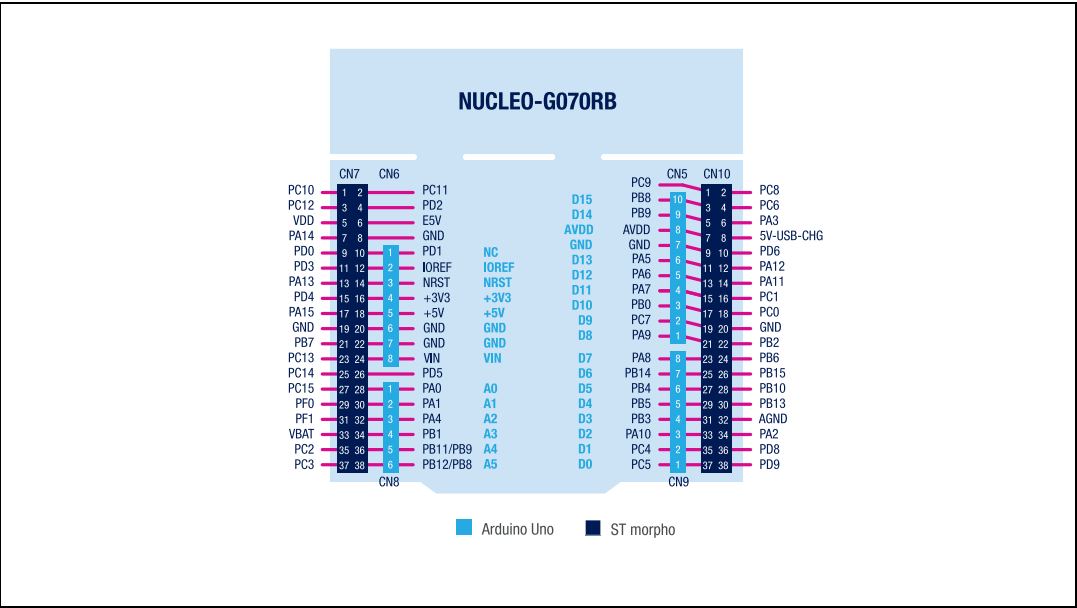
Note: *ARDUINO® Uno V3 D0 and D1 signals are connected by default on USART1 (MCU I/O PA2 and PA3).*