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## MicroPython pyboard feature table

### BOARD

description	The original pyboard v1.1	Pyboard lite v1.0 with accelerometer	Pyboard lite v1.0
SKU	PYBv1.1 (/product/PYBv1.1)	PYBLITEv1.0-AC (/product/PYBLITEv1.0-AC)	PYBLITEv1.0 (/product/PYBLITEv1.0)

### PRICE

GBP incl. tax	£28.00	£22.60	£19.60
approx EUR incl. tax	€39.20	€31.60	€27.40
approx USD excl. tax	\$35.00	\$28.25	\$24.50

### MICROCONTROLLER

MCU	STM32F405RGT6	STM32F411RET6	STM32F411RET6
CPU	Cortex-M4F	Cortex-M4F	Cortex-M4F
internal flash	1024k	512k	512k
RAM	192k	128k	128k
maximum frequency	168MHz	96MHz	96MHz
hardware floating point	single precision	single precision	single precision

### BOARD FEATURES

micro USB connector	yes	yes	yes
micro SD card slot	yes	yes	yes
accelerometer (MMA7660)	yes	yes	no
real time clock	32kHz crystal	internal oscillator; pads to solder 32kHz crystal	internal oscillator; pads to solder 32kHz crystal
switches	USR+RST	USR+RST	USR+RST
leds	R+G+Y+B	R+G+Y+B	R+G+Y+B
hobby servo ports	4	4	4
DFU mode for firmware upgrade	yes	yes	yes

### POWER SUPPLY

supply options	USB/V+/VBAT	USB/V+/VBAT	USB/V+/VBAT
input range on V+/VBAT	3.6v-16v	3.6v-16v	3.6v-16v
max output of regulated 3.3v	250mA	250mA	250mA
place for JST connector	yes	yes	yes
backup battery input (VBACK)	yes	yes	yes

### POWER CONSUMPTION

running at 168MHz	56mA	-	-
running at 96MHz	37mA	23mA	23mA
running at 48MHz	21mA	13mA	13mA

idling at 168MHz	16mA	-	-
idling at 96MHz	12mA	5mA	5mA
idling at 48MHz	7mA	4mA	4mA
sleep (full RAM retention)	360uA	180uA	180uA
deepsleep (backup retention only)	6uA	6uA	6uA

**IO CAPABILITIES**

IO pins	30	30	30
pins with PWM	20	18	18
pins with A/D	16 (4 shielded)	16 (4 shielded)	16 (4 shielded)
pins with D/A	2	0	0

**PERIPHERALS**

independent timers	13	7	7
hardware random number generator	yes	no	no
UART	5	3	3
I2C	2	2	2
SPI	2	2	2
CAN	2	0	0

**MICROPYTHON CAPABILITIES**

internal flash fs	112k (94k usable)	64k (46k usable)	64k (46k usable)
approx heap size	100k	83k	83k

**ADD-ONS**

LCD+touch skin compatible (LCD32MKv1.0)	yes	yes	yes
Audio skin compatible (AMPv1.0)	yes	no	no

Differences between PYBv1.0 and PYBv1.1: high-speed crystal changed from 8MHz to 12MHz; LDO changed from MCP1802 to MCP1703; USB VBUS power diode replaced with silicon diode; JST battery connector pads added with protection FET.

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- Wiki (<http://wiki.micropython.org>)
- Forum (<http://forum.micropython.org>)
- GitHub (<http://www.github.com/micropython>)

**Resources**

- [Help!](http://micropython.org/help) (<http://micropython.org/help>)
- [Tutorials](http://docs.micropython.org/en/latest/pyboard/tutorial/index.html) (<http://docs.micropython.org/en/latest/pyboard/tutorial/index.html>)
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