

DWM1001 Development Board- Power Consumption

Measured through USB port



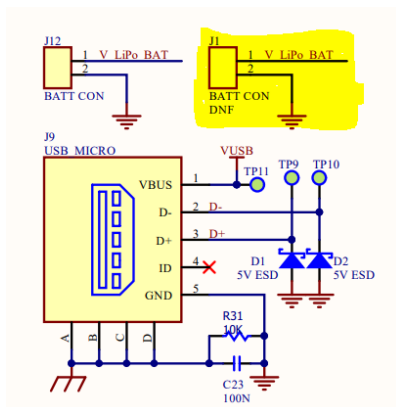
Firmware	Setup	U	I (max)	P
Unknown	Unknown	5V	31mA	156mW

Estimation with a 3V battery

Firmware	Setup	U	I (max)	P
Unknown	Unknown	3V	52mA	156mW

Measured with laboratory power supply (16/06/2023)

Power supply on J1 connector



Firmware	Setup	U	I (max)	P
Anchor/Transmitter	4 Anchors - 1 Listener	3.7V	40mA	148mW
Listener/Tag	1 Listener – 1 Anchor	3.7V	34mA	126mW

Datasheet extract DW1001

1.1 Suitable Power Supply Options

The module development board has a voltage supply requirement of 3.6V to 5.5V.
The module development board can be powered from three different sources. Details are given in Table 1.

Table 1: Possible sources of power for the module development board

Power Source	Voltage level	Current level (Recommended)	Notes
USB Connection	+5V	500mA	The board requires a connection to a high power USB connection. Check that it can supply at least 500mA.
Battery	3.6V - 5.5V	500mA	Any battery that meets the 3.6V to 5.5V voltage supply will suffice.
Raspberry Pi Power	+5V	500mA	

The current level described in the datasheet has never been observed in the previous measure campaign.

As described in the datasheet, the power needed by the module could reach 1.75W

Battery 2h autonomy based on a 156mW consumption

Pile bouton rechargeable Panasonic 3V, 100mAh, 30mm, Lithium Vanadium Pentoxyde, VL3032

<https://fr.rs-online.com/web/p/piles-bouton-rechargeables/0407906>



Battery 2h autonomy based on a 1.75W consumption

<https://fr.rs-online.com/web/p/batteries-taille-speciale/1251266>

Accumulateur 3.7V 2Ah Lithium Polymère RS PRO

Code commande RS: 125-1266 | Marque: RS PRO



Annexes

Connecteur Molex 1.25 PicoBlade

[https://fr.rs-online.com/web/p/cordons-fil-a-carte/2248682?cm_mmc=FR-PLA-DS3A-_-google-_-CSS_FR_FR_Cables_%26_cordons_et_fils_Whoop-_-{\(FR:Whoop!\)+Cordons+fil+%C3%A0+carte-_-2248682&matchtype=&pla-321942550056&gclid=CjwKCAjwp6CkBhB_EiwAlQVyxcc8EZtD0tO86evE6Wl9BrQd634MpPSwJFvt0ENdIkDJy4kvpd5NmhoC4hoQAvD_BwE&gclidsrc=aw.ds](https://fr.rs-online.com/web/p/cordons-fil-a-carte/2248682?cm_mmc=FR-PLA-DS3A-_-google-_-CSS_FR_FR_Cables_%26_cordons_et_fils_Whoop-_-{(FR:Whoop!)+Cordons+fil+%C3%A0+carte-_-2248682&matchtype=&pla-321942550056&gclid=CjwKCAjwp6CkBhB_EiwAlQVyxcc8EZtD0tO86evE6Wl9BrQd634MpPSwJFvt0ENdIkDJy4kvpd5NmhoC4hoQAvD_BwE&gclidsrc=aw.ds)

Cordon assemblé Molex PicoBlade, 150mm, 1.25mm

Code commande RS: 224-8682 | Référence fabricant: 2181130201 | Marque: Molex

