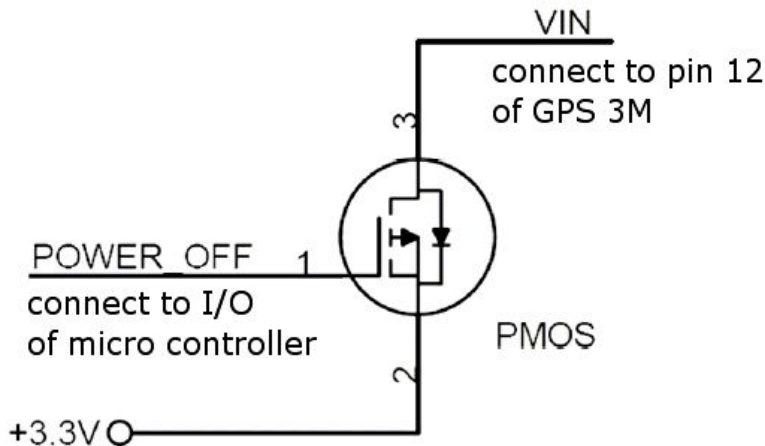


FAQ AarLogic GPS 3 family

How to switch on/off the GPS 3M?

As soon there is power on Vbat the module will be powered. There is no „ON/OFF“-pin like in the Telit modules. The actually switch ON or OFF the module the usage of a PMOS is recommended.



Can the ON/OFF-pin of the AarLogic GPS 3M be used to switch on/off the GPS receiver?

No, this pin is reserved for future power saving mode. Please look at question „How to switch on/off the GPS 3M?“

Can the AarLogic GPS 3M be used with passive antennas?

Yes, but a further SAW filter is recommended. Without additional SAW filter the distance to the nearest GSM-antenna should not under-run 20cm.

Can I update the SiRF firmware of the GPS receiver?

Yes, this is possible. Normally there is no need for firmware updates by the customer. With a MOQ of 100 units a customized firmware can be ordered.

Can I use the GPS 3M with active antennas?

Yes, as long as the maximum system gain (antenna patch gain, LNA gain, cable loss, connector loss) is below 24dBi.

Does the GPS 3M come with an integrated LNA?

Yes the AarLogic GPS 3M comes with I-stage LNA (18dBi gain) and SAW filter. Please note that the SAW is placed behind the LNA so that for passive antennas an additional LNA in front of the RF input pin is recommended.

Is A-GPS (assisted GPS) supported?

Yes A-GPS is supported. The customer needs an infrastructure (SiRF Distribution Server) which provides the needed data for the GPS receiver. Please contact Round Solutions if you are planning to use A-GPS.

Is a "faster" update rate possible?

Unfortunately not: The AarLogic GPS 3M family uses the SiRF III LP chipset. The maximum frequency for position data updates is 1Hz.

How to connect an antenna to the GPS 3M?

The impedance of the RF input is 50 Ohm. The connection to an SMT antenna (soldered on the PCB) or antenna connector (PCB mounted connectors) has to be done using a 50 Ohm micro strip line.

What does accuracy "2D RMS" mean?

2D RMS is a special definition of a Circular Error Probable (CEP) of 98 per cent. That means 98% of all position measurements are within this circle. For example the GPS 3M provides an accuracy of a 10m 2d RMS, thus 98% of all positionings are within this circle. In 98% this accuracy of 10m (or better) is achieved.

Another very often used - but less accurate - accuracy figure is the diameter of the CEP50. That means a circle with a certain diameter which contains only 50% of all position measurements. Thus it can be said that only in 50% of the measurements this accuracy will be achieved.