

On 6 Jun 2013, at 18:41, Gene Massion wrote:

Helen

Thanks for the prompt response. We use the uBlox GPS receivers and circuit switched Iridium so your comments were particularly relevant.

Cheers

Gene Massion

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From: Helen Cussen [mailto:helen@tridentsensors.com]

Sent: Thursday, June 06, 2013 4:43 AM

To: Gene Massion

Subject: Re: Questions about your deep sea GPS/Iridium antenna

Dear Gene,

Please find the technical specification for the antenna attached.

To answer your questions:

- 1) It looks like this antenna has 2 separate antenna feeds. Does this mean there is no switching circuitry and we can basically just connect one feed to our GPS receiver and one to our Iridium modem and operate both without worrying about any switching circuitry?

Yes, there are two feeds one for the Iridium modem and the other for the GPS receiver. Note we can offer a single element antenna if required.

2) Our application is battery powered and I think the 2 antenna feeds without switching circuitry has less loss than other vendors GPS/Iridium solutions that have only 1 feed. Is that correct? In our own battery powered solutions we use the two antenna approach for most applications. We do supply some systems with a single switched antenna but this is usually when the customer specifies that the antenna needs to be remote from the electronics so we have to use a DGO coax cable and connector. The dual element antenna allows for the use of an active GPS element which improves TTFF thus reducing the time that the GPS receiver needs to be powered hence saving power.

3) I assume that we won't be able to receive GPS signals when the Iridium modem is transmitting. Is that correct? In our systems we tend to switch the GPS off when the Iridium is transmitting but this is mostly for power saving reasons. The GPS can be left on during transmissions but you should take care that the GPS receiver is protected from damage caused by the Iridium signals. It depends upon the GPS receiver that you are using as to whether it is susceptible to interference from the Iridium transmissions - the UBLOX 5 chips certainly are and these should be protected with saw filters!

4) Do you have beam patterns for the antennas? Are they helical antennas?

Yes they are helical - see the attached for the beam patterns.

5) Can you tell me a little more about how the antennas are physically arranged in the housing? Is it 2 separate antennas that are stacked on top of each other or ????

Yes the Iridium element is mounted above the GPS element.

6) How much gain does the preamp provide on the GPS antenna?

Can you provide the power consumption and voltage specs?

See the attached

7) Do you have any experience regarding performance vs. height off the water that would help me decide how long a "stem" to mount the antenna on?

The antennas will work well so long as they are clear of the water line. You may need a spar if it is likely that the antenna will experience considerable wash over. 18" is usually sufficient. Are you planning to use the SBD or the circuit switched service? The SBD is less likely to experience problems close to the waterline as the transmissions are short so wash over is less of a problem. For the circuit switched service any wash over will interrupt the transmission.

8) Can you provide a quote for price and delivery?

The price is £650 excluding carriage, delivery 4-6 weeks from receipt of order.

Please let me know if you have any more questions.

Kind regards,

Helen

