

## W3100A errata and limitation list

2002-10-31

Related Mode	Issues	Phenomenon	Solution or recommendation
TCP	FIN,ACK flooding with Close command	FIN,ACK is flooding when Close command is executed before all sending data are sent out and remain empty	Recommending that Tx_wr_ptr and Tx_ack_ptr registers be checked to make sure that sending data buffer is empty just before executing close command. Or please execute init command without issuing close command
	Option order	Restriction in handling MSS option field in TCP option. Received TCP SYN packet is discarded when MSS option is not the first option prior to any other option. Only Solaris OS is suffering this issue	Peer should make sure that MSS option field come first and is handled ahead of other TCP option fields. This limitation will be eliminated in next version.
	Half close	The receiver which has received FIN flag packet cannot send remained data to the sender	WIZnet will add a function in the next version.
	Keepalive	There's no Keepalive timer and function to check peer's status	WIZnet will add this function in the next version

Related Mode	Issues	Phenomenon	Solution or recommendation
UDP	UDP socket	Limitation in using UDP socket as it is expected Same UDP socket cannot be used for more than one destination when sending data without newly opening socket (but it is OK for receiving data).	<ol style="list-style-type: none"> <li>1. No problem in case of remote destination rather than local one or receiving data.</li> <li>2. In case of using less than 4 channels Assign one unique destination to each channel</li> <li>3. In case of using more than 4 channels .Avoid trying more than one destination to same socket .Open brand new socket after closing the socket in use every time data sending to other destinations are required</li> </ol>
IP RAW	Data length in IP RAW mode	In IP RAW mode, the value in header representing the received data length is set 4 byte shorter than it actually is	<p>Recommending that the driver taking care of decoding header length handles it and adds 4 bytes length to the registered one before using it as total data length information</p> <p>But it happens only in IP RAW mode</p>
UDP/IP RAW	Max. MSS	Max. MSS length is 1460 Bytes in UDP and IP RAW mode	Recommending to set MSS value less than 1460 bytes in both UDP and IP RAW mode
IP	Fragmentation	W3100A discards any fragmented packet	Adjust MSS(Maximum Segment Size) to make fit network MTU(Maximum Transmission Unit). This fragmentation function is not scheduled to be added in the next version.

Related Mode	Issues	Phenomenon	Solution or recommendation
Others	Ignoring IP packets	IP packets are discarded in IP layer when self IP is set to 0.0.0.0 but incoming packet has different IP from it as a destination IP and come in along with matching MAC address	The case it might happen is when W3100A acks as DHCP client with initial IP address 0.0.0.0 and try to get new IP address from DHCP server but unfortunately DHCP is working in unicast mode for delivering IP to client rather than in broadcasting mode which is most usual Then set DHCP to work in broadcast mode.
	Socket status	Socket status bit is set into the closed state (0x00) for a very short period as soon as Close command is delivered to register even though close process is not finished yet and it set back into right status right away	Recommending that driver program don't try read the this close socket status value or don't use this status just after executing close command, rather than please use interrupt mechanism if required.