# I-2534 & I-5534-M FAQ

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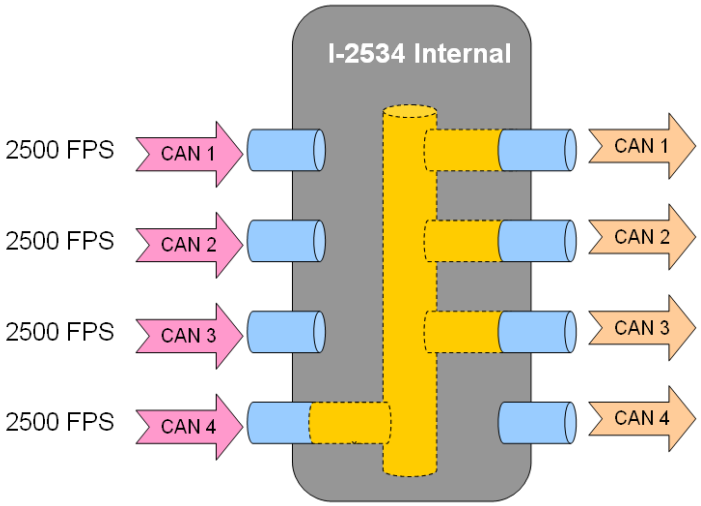


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## Q1、What is the maximum FPS of the I-2534? (2012/3/15,Johney)

The maximum data flow up to 2500 frames per second for all CAN channels. Please see the following figure.



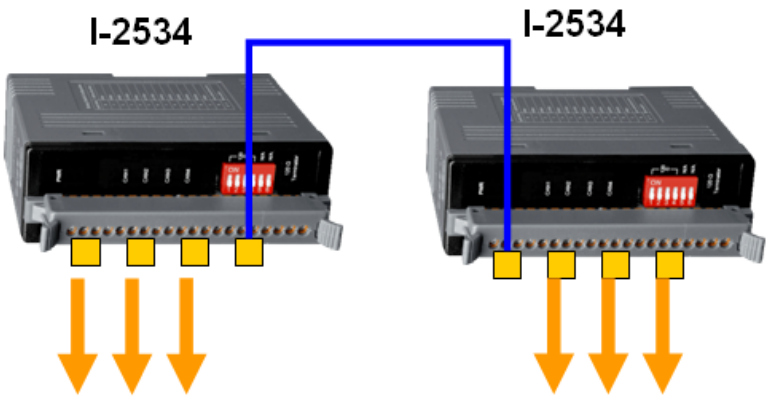



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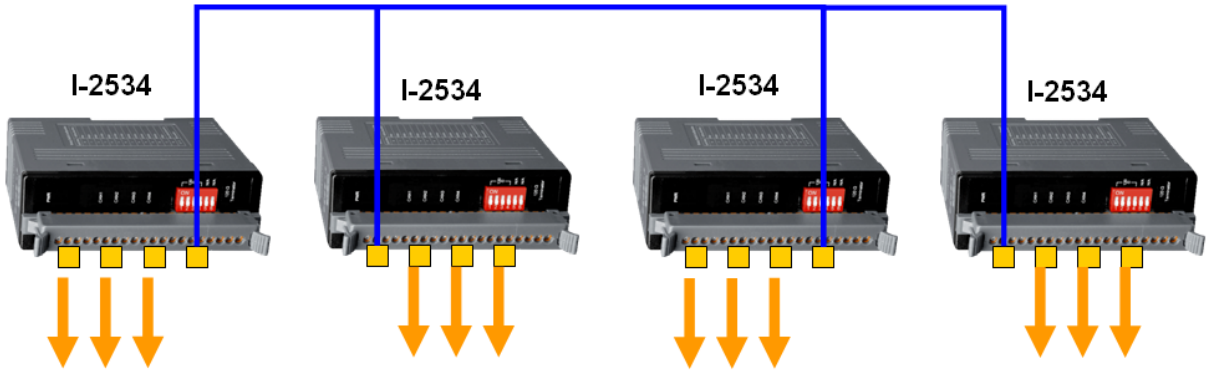
## Q2、How to implement the 6 ports CAN switch with the I-2534?

## (2012/3/15,Johney)

The I-2534 can be cascaded to expend the CAN ports. Here shows the 6 ports and 12 ports examples.




6 ports CAN switch application



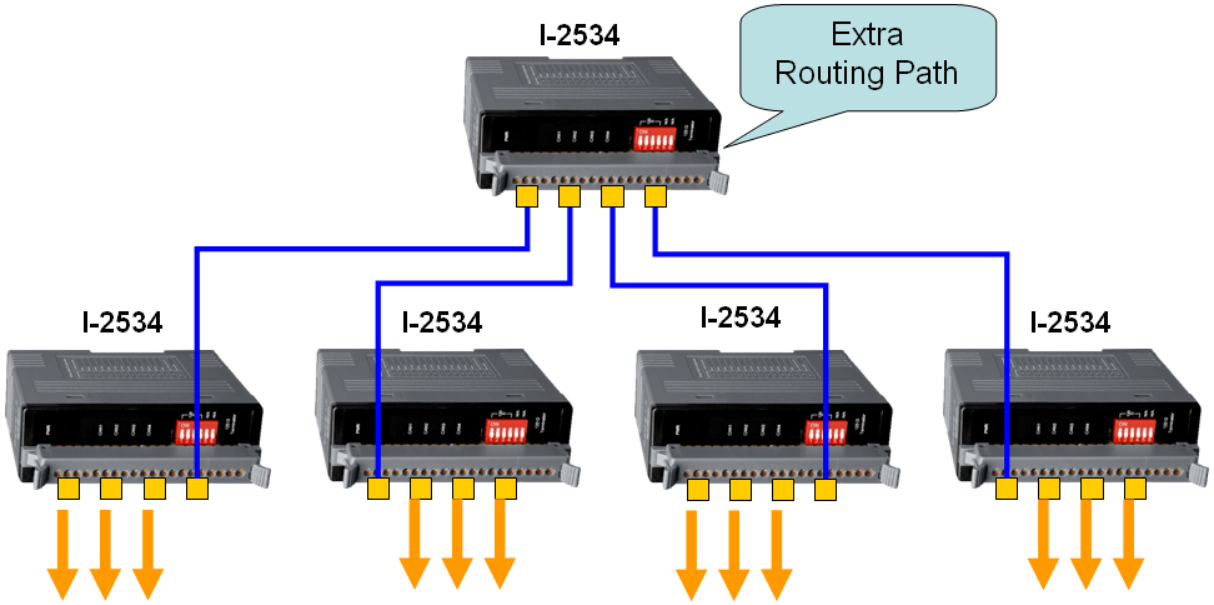

12 ports CAN switch application



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## Q3、How to manage reduce the data flow in 12 ports CAN switch? (2012/3/15,Johney)

The users can use 4 I-2534s to implement 12 ports CAN switch. But the data flow would be very huge. The users can use another I-2534 to configure the extra routing path. Here shows the example.

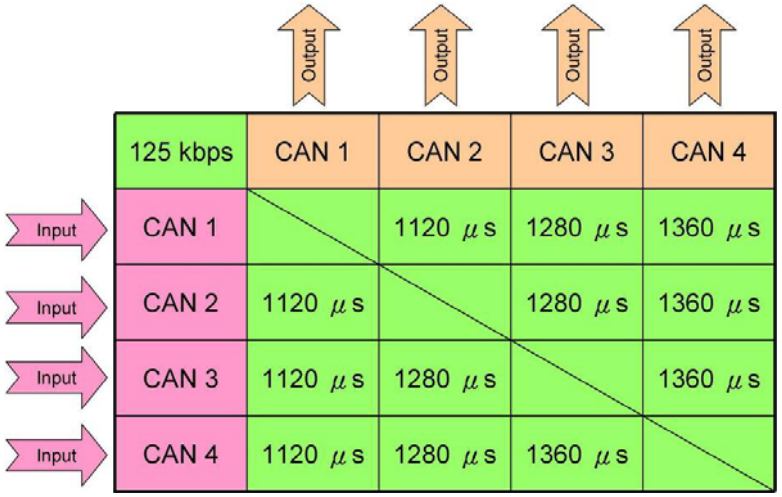




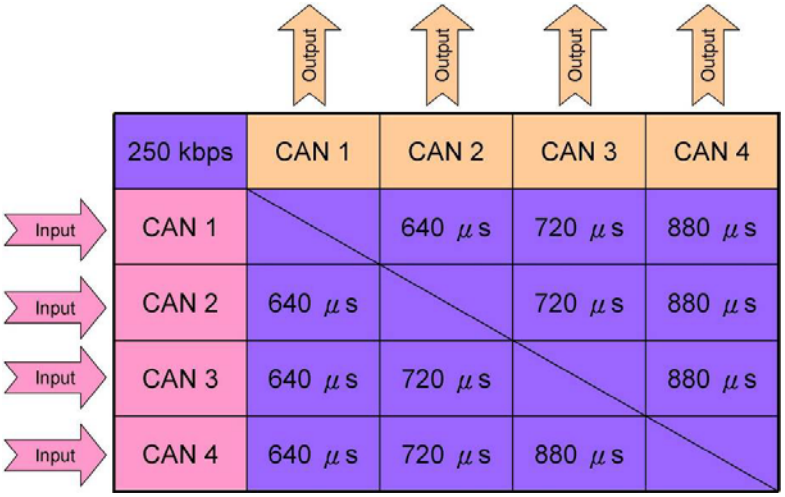

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## Q4、How much delay time does the I-2534 take? (2012/3/15,Johney)

The I-2534 is the management CAN switch. It need to receive the CAN messages and transfer to another ports. The delay time would be the related to the CAN baud rate. Here shows the propagation delay of the I-2534 below.



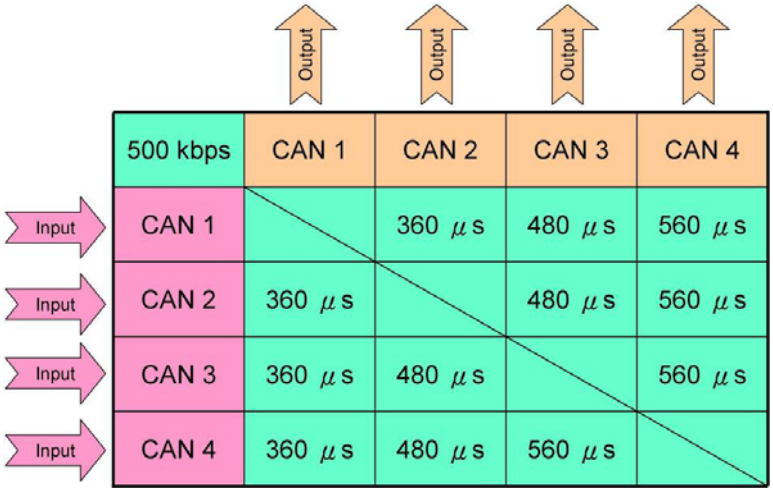

| 125 kbps | CAN 1 | CAN 2 | CAN 3 | CAN 4 |
|---|---|---|---|---|
| CAN 1 | | 1120 μs | 1280 μs | 1360 μs |
| CAN 2 | 1120 μs | | 1280 μs | 1360 μs |
| CAN 3 | 1120 μs | 1280 μs | | 1360 μs |
| CAN 4 | 1120 μs | 1280 μs | 1360 μs | |

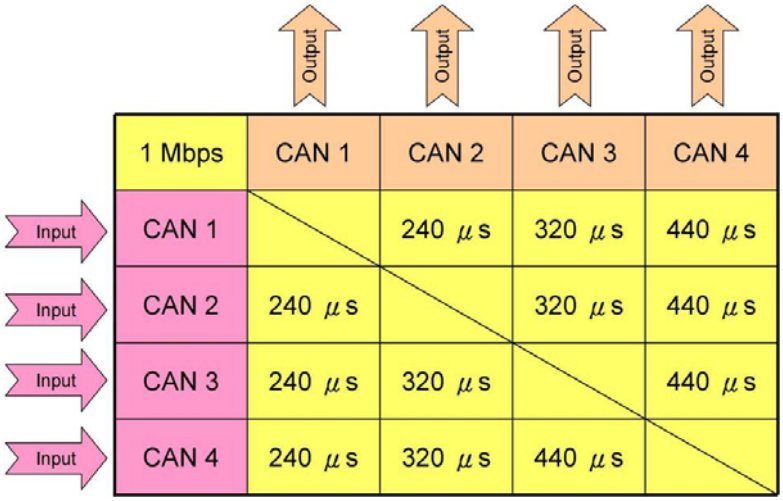



| 250 kbps | CAN 1 | CAN 2 | CAN 3 | CAN 4 |
|---|---|---|---|---|
| CAN 1 | | 640 μs | 720 μs | 880 μs |
| CAN 2 | 640 μs | | 720 μs | 880 μs |
| CAN 3 | 640 μs | 720 μs | | 880 μs |
| CAN 4 | 640 μs | 720 μs | 880 μs | |



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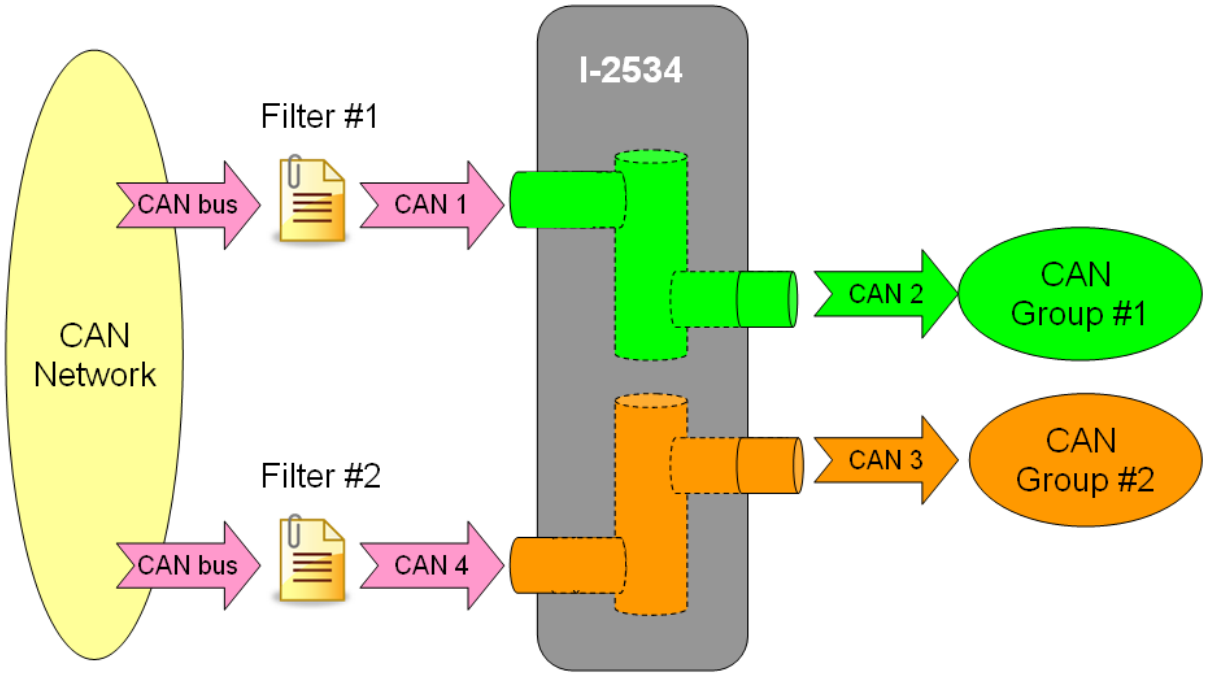






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## Q5、How to divide one CAN network into two groups with I-2534 module? (2012/3/15,Johney)

We sometime use CAN ID to divide the CAN network into several groups. Here shows how to divide one network into two groups. First, the users need to list the CAN ID of these two groups. Second, set the CAN ID into the CAN filter. Third, set the correct routing path. Here is the example CAN1 ←→ CAN2 and CAN3 ←→ CAN4. Finally, the users can receive the specific CAN IDs in the CAN 2 and CAN 3. The following figure shows the example.

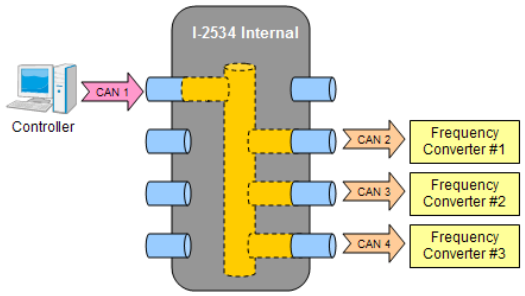




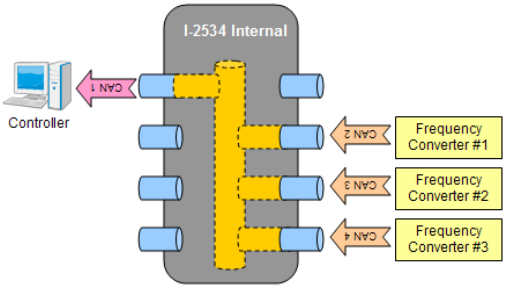

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## Q6、How to configure CAN 1 as input and CAN 2, 3, 4 as output within I-2534 module? (2012/4/22,Johney)

The CAN 1 is input and CAN 2,3,4 are output. The illustration should be like the following diagram.

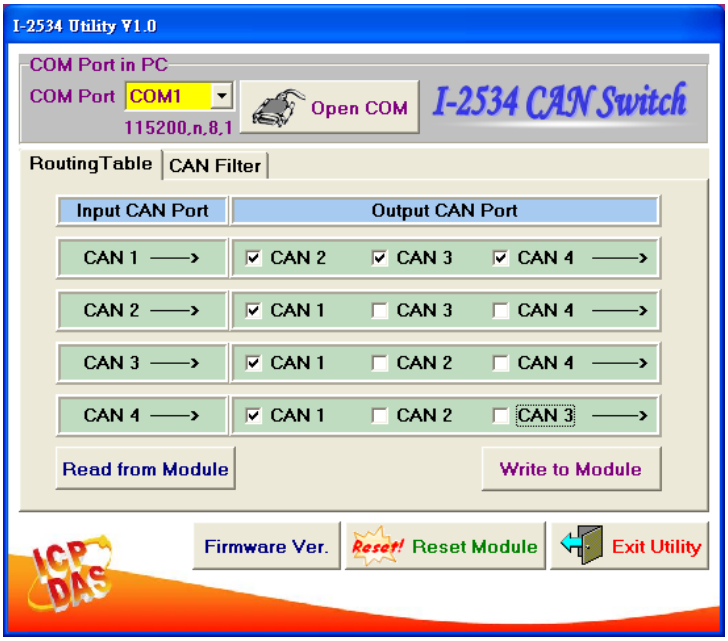



Send Commands




Read Responses

If the diagram is the correct control path, your I-2534's route path configuration should be like as follow picture.

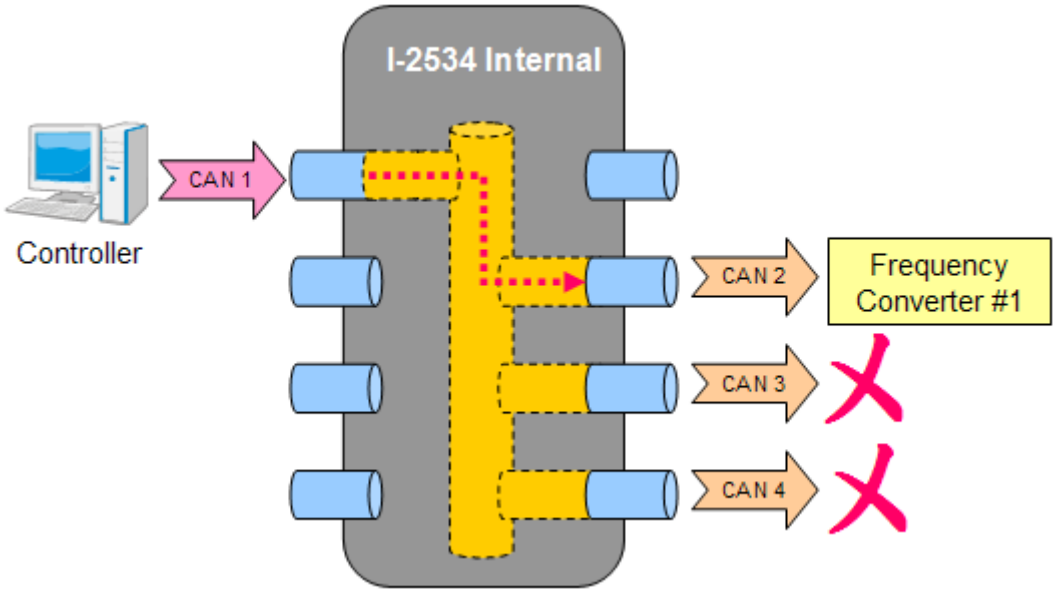





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## Q7、If I only connect the I-2534's CAN 1 & 2 and CAN 3 & 4 is open, it will work fine between CAN 1 & 2 ? (2012/4/22,Johney)

The following connection would still work fine.





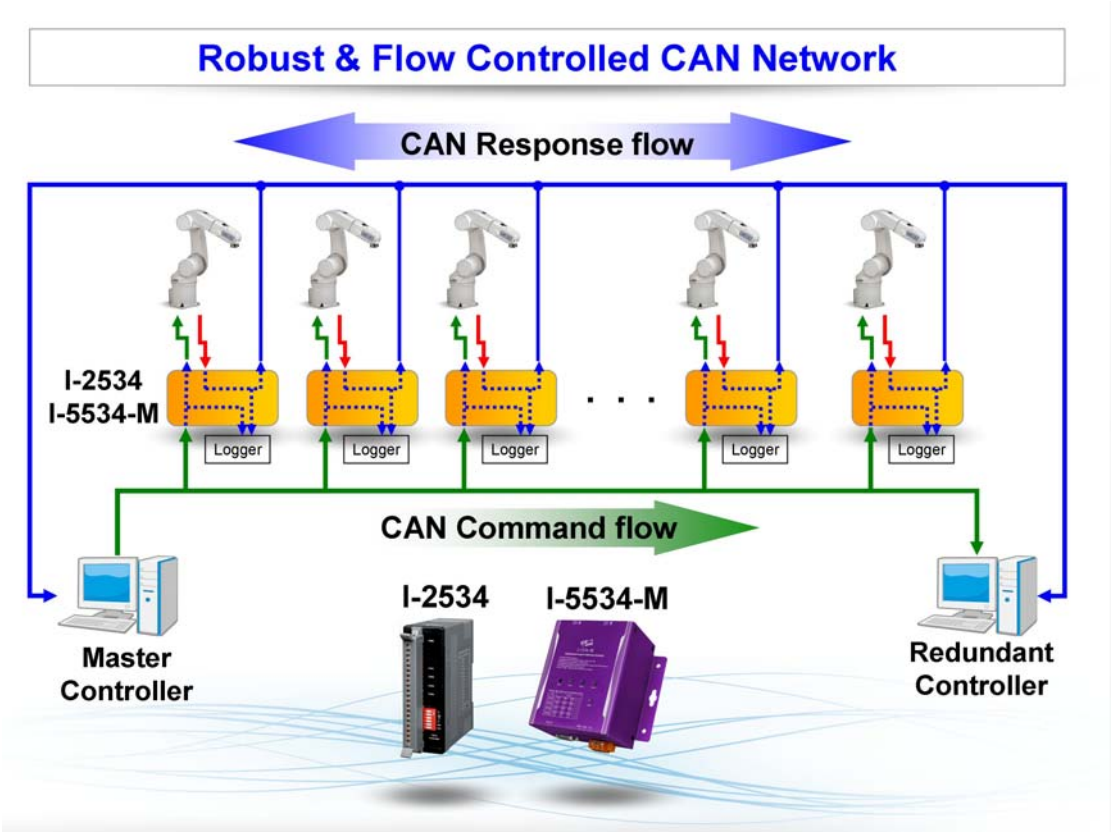

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## Q8、How to build robust and flow controlled CAN network?

## (2014/12/17,Johney)

Here shows the typical solution.

Each CAN device could connect with the master controller by the I-2534 or I-5534-M CAN switch. Every CAN device will receive the CAN command messages, like “SYNC” or “Bit-Strobe” message at the same time. It is easy to perform the real-time synchronize processes without any jitter. All replied CAN messages of the CAN devices would go to another CAN network and do not go back to the CAN command network. Those replied messages would not influence the CAN network which is transmitting the real-time synchronize commands. This robust architecture will make the synchronize commands more stable and realizable. Beside, the user could utilize another CAN port to log or control the individual CAN devices. When the network is on-line, the users could monitor or save the CAN messages of the CAN devices individually. When one CAN device has problems, it is easy for the engineer to debug and send control commands to the CAN device individually. Here shows the robust and flow controlled topology.






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## Q9、Update Firmware fail? (2016/12/16, Ives)

1. Check the module is in the firmware download mode successfully. In the mode, the CAN1 ~ CAN 4 LED will twinkle sequentially.
2. Check that COM port communicatrion is normal and there is no program occupied.
3. Check the XXX.fw put in the same document with update tool.

## Q10、What is the MTBF of the I-5534-M? (2016/12/16,Johney)

### MTBF(Mean Time Between Failures):

We calculate the actual installed experience of our customers in calculating the Mean Time Between Failure (MTBF) data we publish.

**MTBF Data:**

| Product | # of Units Sampled | Average Units / month (A) | Total Unit Months (A x 78) | Total Unit Hours (A x 78 x .8 x 8 x 30) | Applicable Failures | MTBF (see notes) |
|---|---|---|---|---|---|---|
| I-5534-M | 110 | 9 | 702 | 134,784 | 1 | 134,784 |

**Notes:**
1. This MTBF numbers are based on data for a sampling of units over a time span of one year.
2. The test temperature is +25°C

## Q11、Does the I-5534-M could extend CAN bus length? (2016/12/16,Johney)

Yes. The I-5534-M could extend the CAN bus length. You can extend three independent CAN buses. Here show the illustration.






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