This is a troubleshooting flow chart to be used when you suspect a communication problem between the PC and the FTIR instrument.

1. **Does your instrument use the SERIAL LINK?**
   - **YES** → Call ABB for service.
   - **NO** → **Yellow LED DATA blinking on the FTIR?**
     - **NO** → Call ABB for service.
     - **YES** → **Private connection?**
       - **NO** → Private connection is recommended
         - **YES** → **LINK led (green) ON?**
           - **NO** → Check the ETHERNET cable
             - **YES** → Reboot your PC
       
       Please refer to the Michelson Ethernet Interface and communicatIR User’s guide p.5 for information about the private connection.

2. This refer to OLDER Serial Communication Protocol (SEQ3600G)
   - Please make sure that you are looking at the DATA led and not the ACTIVITY led.
   - Please refer to the Michelson Ethernet Interface and communicatIR User’s guide p 8 & 9 for LED description & pictures.
This page verifies the functionality of the FTIR Ethernet driver.

START the ABB Bomem FTIR Control Panel applet.

- Is Your instrument detected?
  - NO
    - Have you previously change some parameters in the Instrument properties page?
      - NO
        - Contact your local ABB representative.
      - YES
        - Contact your local ABB representative.
  - YES
    - Go in the PROPERTIES tab of the FTIR Control Panel
      - GOTO page 3

- Is the property page displayed without errors?
  - NO
    - Contact your local ABB representative.
  - YES
    - Is the Firmware Version = 3.80?
      - NO
        - Contact your local ABB representative.
      - YES
        - GOTO page 5

Please refer to the Michelson Ethernet Interface and communicatIR User’s guide p 26 &27 for information on how to use this applet.

You will need to reconfigure the Ethernet driver using a debug cable. Please refer to the Michelson Ethernet Interface and communicatIR User’s guide in APPENDIX C for more information.

This can be due to synchronization delays, please refer to IMZ9264 release notes

Please indicate that you need to upgrade your firmware.
This page Verifies the Ethernet settings for the PC Ethernet card.

Check the LINK SPEED of the PC Ethernet card dedicated to the FTIR communication.

- Link Speed set 100 Mbytes, Half Duplex?
  - NO
  - YES

- IP address = 10.127.127.1?
  - NO
  - YES

- Subnet MASK = 255.255.255.0
  - NO
  - YES

GOTO p.4

Reset PC setup correctly AND reboot the PC.

Be careful as there are two Ethernet ports in our standard PC's, the following parameters apply only to the FTIR connection. You will find the LINK SPEED in the ADVANCED tab of the CONFIGURE menu.

Please refer to the Michelson Ethernet Interface and communicatIR User's guide p 21 22 & 23 for information on how to find the computer network adapter settings.
This page verifies the Ethernet link between the PC and the FTIR at Hardware level.

STOP all applications that are running.

Open a DOS window (Command Prompt)

Use the: PING 10.127.127.127 command.

Timed out?

NO → Contact your local ABB representative.

YES

Are you using a communicatIR?

YES

RESET the CommunicatIR ONLY

Use the: PING 10.127.127.127 command.

Timed out?

NO → Contact your local ABB representative.

YES

RESET the FTIR instrument.

Use the: PING 10.127.127.127 command.

Timed out?

YES → Contact your local ABB representative.

NO

The Ethernet board of the communicatIR is defective.

This situation is not likely to happen. Please refer this case to the ABB Bomem service team.

Confirm a proper Ethernet connection with the following DOS command: PING 10.127.127.127. It should not time-out, and should return 4 lines with “Reply from 10.127.127.127” at the beginning, and “TTL=255” at the end. If the “TTL=xxx” number is not 255, it’s still OK, as long as there is a reply from the instrument.

The Ethernet board OR the Databoard located inside the FTIR are defectives
This page verifies the functionality of the acquisition software.

Are you using Enablir software?

- **YES**
  - Are the Board name and description the same?
    - **NO**
      - START Enablir to see if you still have the FAULT.
    - **YES**
      - CONTACT your local ABB representative.

- **NO**
  - Can you acquire a spectra in BGRAMS?
    - **NO**
      - CONTACT your local ABB representative.
    - **YES**
      - Problem Solved.

Please refer to the Michelson Ethernet Interface and communicatIR User’s guide p 28 for Description (in instrument properties) and OPEN the Config tool of Enablir to find out the Board Name. Both of them needs to be IDENTICAL (case sensitive)

We will need some DATA from the Analyzer PC. Please ask for the troubleshooting form.

The possible causes of the problem are:
- Databoard
- Cables
- Ethernet Board