

PQSC Temperature Test Report

Report No. : JC2502090430

Model No. : JetCon 2502

Applicant Richard Fan

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Issued By: Korenix Product Quality &
Service Center

**Technical
Acceptance** Tomas Liao
(Responsible for Temperature Test)

Approved By Orwell
(Director of the PQSC)

Release Date	2009/04/30
Test Model	JetCon2502
Tested Version	SW: N/A(Pilot Run Sample) HW: N/A(Pilot Run Sample) SN: N/A(Pilot Run Sample)
Tester	Tomas Liao
Tested Function	JetCon2502 temperature test

Test Result:**◆ Cold Start Test (-40°C):**

DUT	
Result	Passed
LED	OK
Packet	OK
CRC	OK

◆ Stress Test (-40°C ~70°C):

DUT	
Result	Passed
LED	OK
Packet	OK
CRC	OK

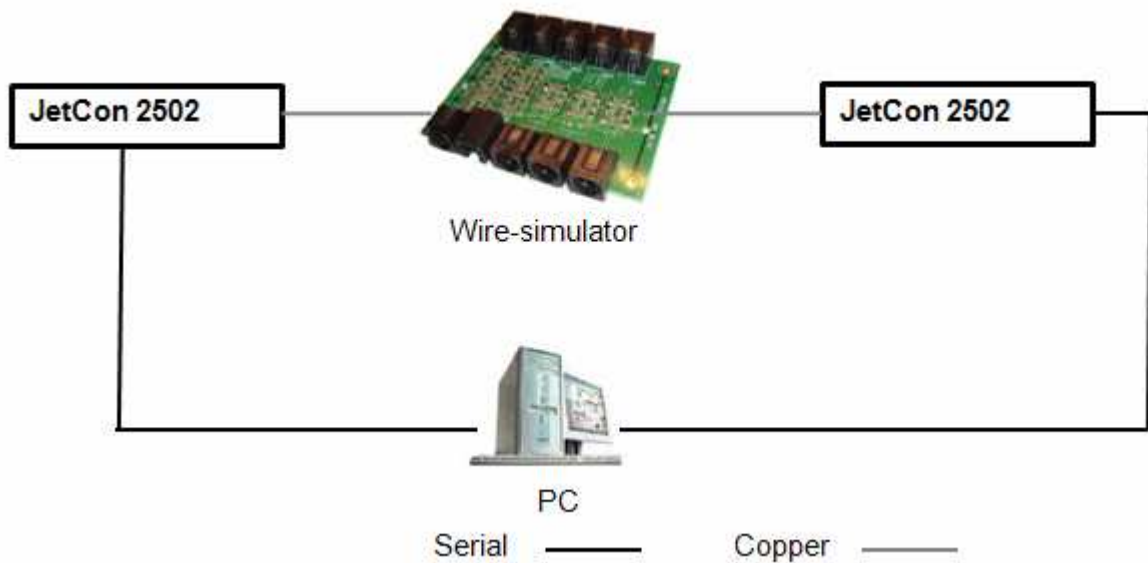
◆ Stress Test (22.5°C):

DUT	
Result	Passed
LED	OK
Packet	OK
CRC	OK

Purpose:

To do temperature test to verify that DUT can operate from -40°C to 70°C .

Topology:



Test Tools:

Hardware:

1. JetCon2502 × 2pcs
2. UTP cable (Cat.5E): 8m
3. Wire-simulator: 2.5 km
4. KSON Programmable Temperature & Humidity Chamber: THS-A4H+100
5. IXIA 1600T

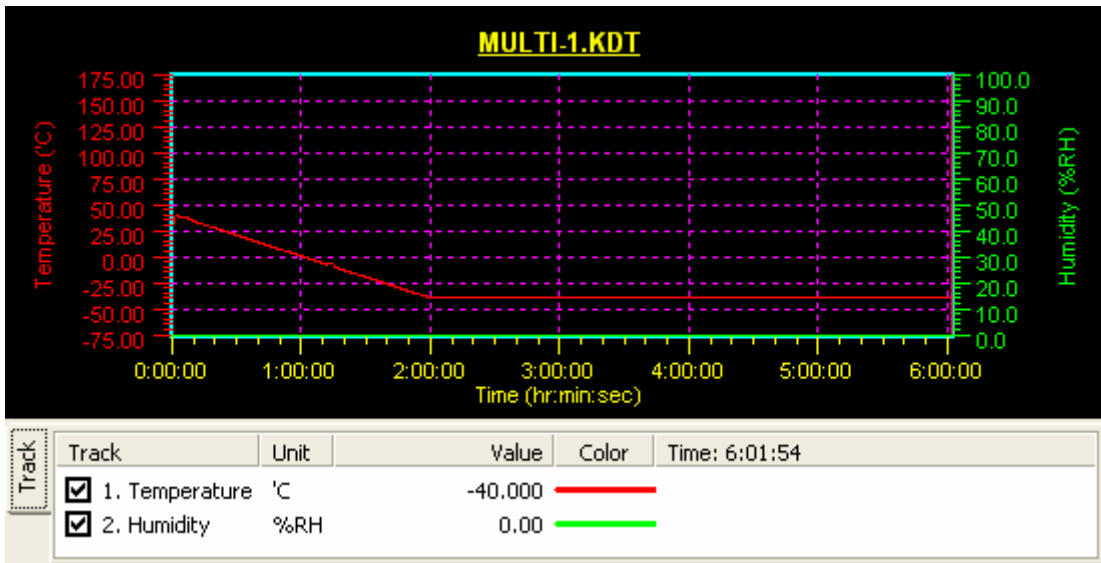
Software:

N/A

Test principle:

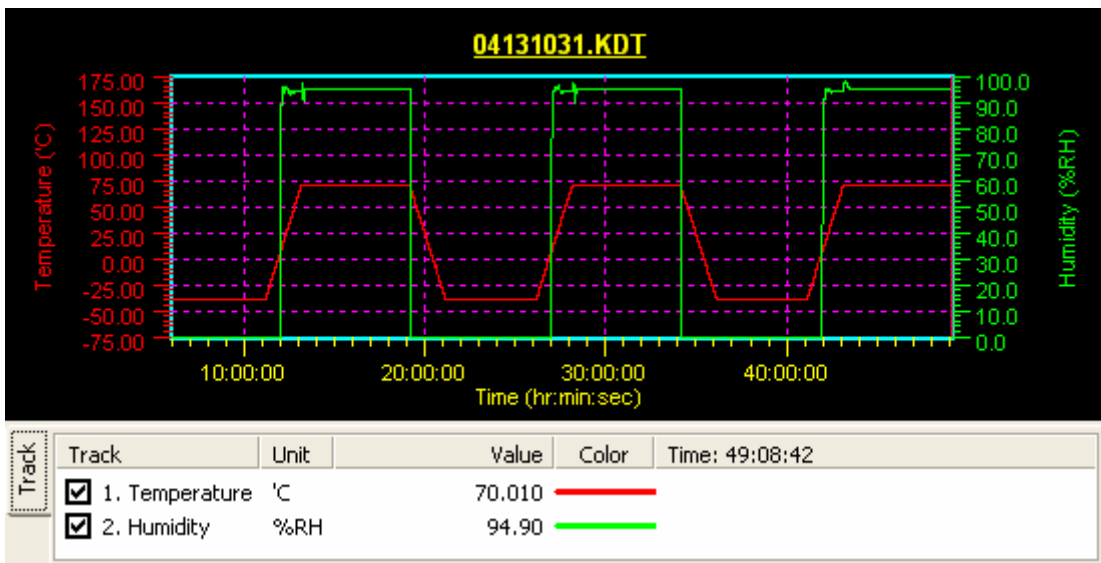
Cold Start (-40°C):

Keep -40°C, boot DUT then use Ixia 1600T to inject packet into DUT. Observe that packet transmitting and booting status at this temperature.



Stress Test:

Between -40°C and 70°C (RH 95%), use Ixia 1600T to inject packet into DUT. observe that packet transmitting and between this temperature range.



Pass/Fail Standard:

Cold Start Test:

Pass:

1. DUT should boot successfully.
2. During the test, we should not receive any error packet (including CRC and Alignment Error), the packet size should be normal, and packet loss should be under the range of $\pm 1\%$

Fail:

1. DUT is booting failed.
2. During the test, we should not receive any error packet (including CRC and Alignment Error), the packet size should be normal, and packet loss should be under the range of $\pm 1\%$

Stress Test:

Pass:

During the test, we should not receive any error packet (including CRC and Alignment Error), the packet size should be normal, and packet loss should be under the range of $\pm 1\%$.

Fail:

During the test, we received any error packet, packet size is abnormal, and packet loss over the range of $\pm 1\%$.

Test procedure:

1. Take switch into the THS-A4H+100.
2. Reducing temperature to -40°C in 2 hours.
3. To keep -40°C for 3 hours then booting DUT and observe booting status.
4. After 60 sec, use IXIA 1600T to inject packet for an hour.
(Refer to Appendix A-1)
5. To use IXIA 1600T to inject packet doing stress test from -40°C to 70°C for 3 cycles. (16 hours/cycle)(Refer to Appendix A-2)
6. To use IXIA 1600T to inject packet doing stress test from 22.5°C for 3 cycles. (16 hours/cycle)(Refer to Appendix A-3)

Test result:

Appendix A-1: Cold Start Test(-40°C)

- Transmit Mode: burst 1 hr at least
- SNR: 9 dB
- Mode: CPE
- Power supply: DC 24 V
- Distance: 2.5 km

Name	192.168.6.104:03.01	192.168.6.104:03.02
Line Speed	100 Mbps	100 Mbps
Duplex Mode	Full	Full
Frames Sent	34886257	41429781
Bytes Received	41429781	34886257
Bytes Received Rate	0	0
Fragments	0	0
Undersize	0	0
Oversize	0	0
CRC Errors	0	0
Vlan Tagged Frames	0	0
Flow Control Frames	4854456	5725588
Alignment Errors	0	0
Dribble Errors	0	0
Collisions	0	0
Late Collisions	0	0
Collision Frames	0	0
Excessive Collision Frames	0	0
Oversize and CRC Errors	0	0
Receive Ping Request	0	0
BPDUs Received	N/A	N/A

Appendix A-2: Stress Test(-40°C~70°C (RH95%))

- Transmit Mode: burst 48 hr at least
- SNR: 9 dB
- Impulse protection: Interleave Mode(latency- 6 ms)
- Power supply: DC 24 V
- Distance: 2.5 KM

Name	192.168.6.104:03.01	192.168.6.104:03.02
Line Speed	100 Mbps	100 Mbps
Duplex Mode	Full	Full
Frames Sent	5229415941	434513853
Bytes Received	434513853	5229415941
Bytes Received Rate	0	0
Fragments	0	0
Undersize	0	0
Oversize	0	0
CRC Errors	0	0
Vlan Tagged Frames	0	0
Flow Control Frames	275281234	21683176
Alignment Errors	0	0
Dribble Errors	0	0
Collisions	0	0
Late Collisions	0	0
Collision Frames	0	0
Excessive Collision Frames	0	0
Oversize and CRC Errors	0	0
Receive Ping Request	0	0
BPDUs Received	N/A	N/A

Appendix A-3: Stress Test(22.5°C (RH95%))

- Transmit Mode: burst 48 hr at least
- SNR: 6 dB
- Impulse protection: Fast Mode(latency- 1 ms)
- Power supply: DC 24 V
- Distance: 2.5 KM

Name	192.168.6.104:03.01	192.168.6.104:03.02
Line Speed	100 Mbps	100 Mbps
Duplex Mode	Full	Full
Frames Sent	5229415941	434513853
Bytes Received	434513853	5229415941
Bytes Received Rate	0	0
Fragments	0	0
Undersize	0	0
Oversize	0	0
CRC Errors	0	0
Vlan Tagged Frames	0	0
Flow Control Frames	275281234	21683176
Alignment Errors	0	0
Dribble Errors	0	0
Collisions	0	0
Late Collisions	0	0
Collision Frames	0	0
Excessive Collision Frames	0	0
Oversize and CRC Errors	0	0
Receive Ping Request	0	0
BPDUs Received	N/A	N/A