|  |  |
| --- | --- |
|  |  |

Keysight Test Report

**PASS**

|  |  |
| --- | --- |
| Report Header: | Keysight Inc. |
| Report Date: | 2025/06/04 01:23:06 |
| Type: | Unframed |

# SUMMARY

|  |  |
| --- | --- |
| IxOS Version | 10.00.1000.17 |
| Test Start Time | 2025/06/04 01:20:15 |
| Test End Time | 2025/06/04 01:23:06 |
| Test Duration | 00:00:30 |
| Pass/Fail Verdict | PASS |
| Module Type | 1,1,2 - 100GBASE-DR 1,1,4 - 100GBASE-DR |
| Module Version | 1,1,2 - CMIS 5.0 1,1,4 - CMIS 5.0 |
| Serial Number | 1,1,2 - DN4D180001 1,1,4 - UNA8490003 |

# Transceiver DOM (Digital Optical Monitoring) - BERT

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1,1,2** | | | | | | | | | | |
| **Manufacturer** | | Eoptolink | | **Model** | | EOLD-138HG-5H-SM | | **Mfg Revision** | | 01 |
| **Type** | | 100GBASE-DR | | **SN** | | DN4D180001 | | **Firmware Revision** | | 3.0 |
| **MSA** | | CMIS 5.0 | | **Date Code(YYMMDDLL)** | | 220426 | | **Hardware Revision** | | 1.0 |
| **Media Tech** | | 1310 nm DFB | | **Media Connector** | | MPO 1x16 | |  | |  |
| **Cable Lenth** | | 0.0 m | | **Identifier Type** | | QSFP-DD | |  | |  |
| **Reported Power Class** | | 8 | | **Reported Max Power** | | 18.000000 W | |  | |  |
|  | |  | |  | |  | |  | |  |
| **Modlue** | | **High Alarm** | | **High Warn** | | **Low Warn** | | **Low Alarm** | |  |
| **Temperature** | | 78 C | | 73 C | | -3 C | | -8 C | |  |
| **Supply Voltage** | | 3.630 V | | 3.465 V | | 3.135 V | | 2.970 V | |  |
|  | |  | |  | |  | |  | |  |
| **Lane Limits** | | **High Alarm** | | **High Warn** | | **Low Warn** | | **Low Alarm** | |  |
| **Tx Optical Power** | | 6.00 dBm | | 5.00 dBm | | -3.90 dBm | | -4.90 dBm | |  |
| **Rx Optical Power** | | 6.50 dBm | | 5.50 dBm | | -7.40 dBm | | -8.40 dBm | |  |
| **Tx Bias Current** | | 6.50 dBm | | 5.50 dBm | | -7.40 dBm | | -8.40 dBm | |  |
|  | |  | |  | |  | |  | |  |
| **Host Lane** | **Port** | **Data Path State** | **Tx LOS** | **Tx CDR LOL** | **Media Lane** | **Tx Optical Power** | **Tx Bias Cureent** | **Rx Optical Power** | **Rx LOS** | **Rx CDR LOL** |
| 1 | 2.1 | Activated (4) | No | No | 1 | 3.17 dBm | 222.264 mA | 0.76 dBm | No | No |
| 2 | 2.1 | Activated (4) | No | No | 2 | 2.71 dBm | 222.752 mA | 2.26 dBm | No | No |
| 3 | 2.1 | Activated (4) | No | No | 3 | 1.37 dBm | 204.624 mA | 1.62 dBm | No | No |
| 4 | 2.1 | Activated (4) | No | No | 4 | 1.67 dBm | 204.864 mA | -3.62 dBm | No | No |
| 5 | 2.1 | Activated (4) | No | No | 5 | 3.03 dBm | 201.824 mA | 0.27 dBm | No | No |
| 6 | 2.1 | Activated (4) | No | No | 6 | 2.73 dBm | 201.824 mA | 0.04 dBm | No | No |
| 7 | 2.1 | Activated (4) | No | No | 7 | 2.98 dBm | 203.288 mA | 2.09 dBm | No | No |
| 8 | 2.1 | Activated (4) | No | No | 8 | 2.66 dBm | 203.528 mA | -1.00 dBm | No | No |

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1,1,4** | | | | | | | | | | |
| **Manufacturer** | | Eoptolink | | **Model** | | EOLO-138HG-5H-SM | | **Mfg Revision** | | 01 |
| **Type** | | 100GBASE-DR | | **SN** | | UNA8490003 | | **Firmware Revision** | | 3.0 |
| **MSA** | | CMIS 5.0 | | **Date Code(YYMMDDLL)** | | 221109 | | **Hardware Revision** | | 1.0 |
| **Media Tech** | | 1310 nm DFB | | **Media Connector** | | MPO 1x16 | |  | |  |
| **Cable Lenth** | | 0.0 m | | **Identifier Type** | | OSFP | |  | |  |
| **Reported Power Class** | | 8 | | **Reported Max Power** | | 18.000000 W | |  | |  |
|  | |  | |  | |  | |  | |  |
| **Modlue** | | **High Alarm** | | **High Warn** | | **Low Warn** | | **Low Alarm** | |  |
| **Temperature** | | 78 C | | 73 C | | -3 C | | -8 C | |  |
| **Supply Voltage** | | 3.630 V | | 3.465 V | | 3.135 V | | 2.970 V | |  |
|  | |  | |  | |  | |  | |  |
| **Lane Limits** | | **High Alarm** | | **High Warn** | | **Low Warn** | | **Low Alarm** | |  |
| **Tx Optical Power** | | 6.00 dBm | | 5.00 dBm | | -3.90 dBm | | -4.90 dBm | |  |
| **Rx Optical Power** | | 6.50 dBm | | 5.50 dBm | | -7.40 dBm | | -8.40 dBm | |  |
| **Tx Bias Current** | | 6.50 dBm | | 5.50 dBm | | -7.40 dBm | | -8.40 dBm | |  |
|  | |  | |  | |  | |  | |  |
| **Host Lane** | **Port** | **Data Path State** | **Tx LOS** | **Tx CDR LOL** | **Media Lane** | **Tx Optical Power** | **Tx Bias Cureent** | **Rx Optical Power** | **Rx LOS** | **Rx CDR LOL** |
| 1 | 4.1 | Activated (4) | No | No | 1 | 2.45 dBm | 231.480 mA | 3.91 dBm | No | No |
| 2 | 4.1 | Activated (4) | No | No | 2 | 2.27 dBm | 231.848 mA | 3.17 dBm | No | No |
| 3 | 4.1 | Activated (4) | No | No | 3 | 2.37 dBm | 206.848 mA | 2.06 dBm | No | No |
| 4 | 4.1 | Activated (4) | No | No | 4 | 2.29 dBm | 207.208 mA | 2.30 dBm | No | No |
| 5 | 4.1 | Activated (4) | No | No | 5 | 2.12 dBm | 176.720 mA | 3.32 dBm | No | No |
| 6 | 4.1 | Activated (4) | No | No | 6 | 2.06 dBm | 176.968 mA | 3.27 dBm | No | No |
| 7 | 4.1 | Activated (4) | No | No | 7 | 2.16 dBm | 174.400 mA | 3.18 dBm | No | No |
| 8 | 4.1 | Activated (4) | No | No | 8 | 2.06 dBm | 174.400 mA | 2.12 dBm | No | No |

# CMIS Applicatio Select

|  |  |
| --- | --- |
| 1,1,2 |  |
| Current AppSel | 1 |

Available Applications

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **App** | **Host Side** | | | | | | **Line Side Media** | | | | |
|  | **Interface** | **Lane Speed (G bit/s)** | **Modulation** | **Lane Groups** | **Lanes** | **ID (HEex)** | **Interface** | **Lane Speed (G bit/s)** | **Lane Groups** | **Lanes** | **ID (Hex)** |
| 1 | 100GAUI-1-S C2M | 106 | PAM4 | 8 | 1 | 75 | 100GBASE-DR | 106 | 8 | 1 | 20 |

Preview of Auto selected applications

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Host Port Mode** | **Mod** | **Lane Groups** | **Lanes** | **AppSel** | **Link** | **Host Electrical** | **Lane Groups** | **Lanes** | **Note** |
| 800G-R8 | PAM4 | 1 | 8 | 1 | M | 100GAUI-1-S C2M | 1 | 8 | First app matching host lane speed for host id: 0x51 (800G S C2M 8x53.125 PAM4) |
| 400G-R4 | PAM4 | 2 | 4 | 1 | M | 100GAUI-1-S C2M | 2 | 4 | First app matching host lane speed for host id: 0x4f (400GAUI-4-S C2M 4x53.125 PAM4) |
| 200G-R2 | PAM4 | 4 | 2 | 1 | M | 100GAUI-1-S C2M | 4 | 2 | First app matching host lane speed for host id: 0x4d (200GAUI-2-S C2M 2x53.125 PAM4) |
| 100G-R | PAM4 | 8 | 1 | 1 | Y | 100GAUI-1-S C2M | 8 | 1 | First app matching compatible electrical mode: 0x4b (100GAUI-1-S C2M 1x53.125 PAM4) |
| 400G-R8 | PAM4 | 1 | 8 | 1 | N | 100GAUI-1-S C2M | 1 | 8 | No matching electrical mode |
| 200G-R4 | PAM4 | 2 | 4 | 1 | N | 100GAUI-1-S C2M | 2 | 4 | No matching electrical mode |
| 100G-R2 | PAM4 | 4 | 2 | 1 | N | 100GAUI-1-S C2M | 4 | 2 | No matching electrical mode |
| 50G-R | PAM4 | 8 | 1 | 1 | N | 100GAUI-1-S C2M | 8 | 1 | No matching electrical mode |
| 200G-R8 | NRZ | 1 | 8 | 1 | N | 100GAUI-1-S C2M | 1 | 8 | No matching electrical mode |
| 100G-R4 | NRZ | 2 | 4 | 1 | N | 100GAUI-1-S C2M | 2 | 4 | No matching electrical mode |
| 50G-R2 | NRZ | 4 | 2 | 1 | N | 100GAUI-1-S C2M | 4 | 2 | No matching electrical mode |
| 25G-R | NRZ | 8 | 1 | 1 | N | 100GAUI-1-S C2M | 8 | 1 | No matching electrical mode |

|  |  |
| --- | --- |
| 1,1,4 |  |
| Current AppSel | 1 |

Available Applications

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **App** | **Host Side** | | | | | | **Line Side Media** | | | | |
|  | **Interface** | **Lane Speed (G bit/s)** | **Modulation** | **Lane Groups** | **Lanes** | **ID (HEex)** | **Interface** | **Lane Speed (G bit/s)** | **Lane Groups** | **Lanes** | **ID (Hex)** |
| 1 | 100GAUI-1-S C2M | 106 | PAM4 | 8 | 1 | 75 | 100GBASE-DR | 106 | 8 | 1 | 20 |

Preview of Auto selected applications

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Host Port Mode** | **Mod** | **Lane Groups** | **Lanes** | **AppSel** | **Link** | **Host Electrical** | **Lane Groups** | **Lanes** | **Note** |
| 800G-R8 | PAM4 | 1 | 8 | 1 | M | 100GAUI-1-S C2M | 1 | 8 | First app matching host lane speed for host id: 0x51 (800G S C2M 8x53.125 PAM4) |
| 400G-R4 | PAM4 | 2 | 4 | 1 | M | 100GAUI-1-S C2M | 2 | 4 | First app matching host lane speed for host id: 0x4f (400GAUI-4-S C2M 4x53.125 PAM4) |
| 200G-R2 | PAM4 | 4 | 2 | 1 | M | 100GAUI-1-S C2M | 4 | 2 | First app matching host lane speed for host id: 0x4d (200GAUI-2-S C2M 2x53.125 PAM4) |
| 100G-R | PAM4 | 8 | 1 | 1 | Y | 100GAUI-1-S C2M | 8 | 1 | First app matching compatible electrical mode: 0x4b (100GAUI-1-S C2M 1x53.125 PAM4) |
| 400G-R8 | PAM4 | 1 | 8 | 1 | N | 100GAUI-1-S C2M | 1 | 8 | No matching electrical mode |
| 200G-R4 | PAM4 | 2 | 4 | 1 | N | 100GAUI-1-S C2M | 2 | 4 | No matching electrical mode |
| 100G-R2 | PAM4 | 4 | 2 | 1 | N | 100GAUI-1-S C2M | 4 | 2 | No matching electrical mode |
| 50G-R | PAM4 | 8 | 1 | 1 | N | 100GAUI-1-S C2M | 8 | 1 | No matching electrical mode |
| 200G-R8 | NRZ | 1 | 8 | 1 | N | 100GAUI-1-S C2M | 1 | 8 | No matching electrical mode |
| 100G-R4 | NRZ | 2 | 4 | 1 | N | 100GAUI-1-S C2M | 2 | 4 | No matching electrical mode |
| 50G-R2 | NRZ | 4 | 2 | 1 | N | 100GAUI-1-S C2M | 4 | 2 | No matching electrical mode |
| 25G-R | NRZ | 8 | 1 | 1 | N | 100GAUI-1-S C2M | 8 | 1 | No matching electrical mode |

# BERT Result Summary

|  |  |  |
| --- | --- | --- |
| **Bit Error Ratio** | **1,1,2** | **1,1,4** |
| **BER Threshold** | 2.400000e-04 | 2.400000e-04 |
| **Pre-BER Pass/Fail Verdict** | **PASS** | **PASS** |

# BERT Statistics

Port - 1,1,2

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Physical Lane** | **Pattern Lock** | **Pattern Transmitted** | **Pattern Received** | **Bits Send** | **Bits Received** | **Bit Error Received** | **Bit Error Ratio** |
| **Totals** | lock | PRBS-31Q | PRBS-31Q | 28183908910720.0 | 28183905695120.0 | 23057474.0 | 2.593027e-05 |
| **0** | lock | PRBS-31Q | PRBS-31Q | 3485880247360 | 3485880248640 | 55 | 6.377000e-11 |
| **1** | lock | PRBS-31Q | PRBS-31Q | 3499143281600 | 3499143283200 | 82 | 9.380000e-11 |
| **2** | lock | PRBS-31Q | PRBS-31Q | 3499143281840 | 3499143283200 | 71 | 8.120000e-11 |
| **3** | lock | PRBS-31Q | PRBS-31Q | 3499143281680 | 3499143283200 | 59 | 6.738000e-11 |
| **4** | lock | PRBS-31Q | PRBS-31Q | 3539948420080 | 3539948418240 | 73 | 8.320000e-11 |
| **5** | lock | PRBS-31Q | PRBS-31Q | 3553550132720 | 3553546910480 | 23056091 | 2.592870e-05 |
| **6** | lock | PRBS-31Q | PRBS-31Q | 3553550132800 | 3553550133120 | 1022 | 1.150380e-09 |
| **7** | lock | PRBS-31Q | PRBS-31Q | 3553550132640 | 3553550135040 | 21 | 2.361000e-11 |

Port - 1,1,4

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Physical Lane** | **Pattern Lock** | **Pattern Transmitted** | **Pattern Received** | **Bits Send** | **Bits Received** | **Bit Error Received** | **Bit Error Ratio** |
| **Totals** | lock | PRBS-31Q | PRBS-31Q | 28783419937840.0 | 28783419940800.0 | 42.0 | 4.672000e-11 |
| **0** | lock | PRBS-31Q | PRBS-31Q | 3525330580000 | 3525330580800 | 5 | 5.720000e-12 |
| **1** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298481920 | 0 | 0.000000e+00 |
| **2** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298481920 | 16 | 1.771000e-11 |
| **3** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298478080 | 9 | 9.980000e-12 |
| **4** | lock | PRBS-31Q | PRBS-31Q | 3608298479760 | 3608298478080 | 2 | 2.220000e-12 |
| **5** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298478080 | 8 | 8.870000e-12 |
| **6** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298481920 | 1 | 1.110000e-12 |
| **7** | lock | PRBS-31Q | PRBS-31Q | 3608298479680 | 3608298480000 | 1 | 1.110000e-12 |

# FEC Result Summary

# PCS Lane Statistics

# L2 Traffic Test Summary

# Port Statistics - BERT

|  |  |  |
| --- | --- | --- |
| **Port Statistics** | **Port 1,1,2** | **Port 1,1,4** |
| link | link up | link up |
| transmitState | 0 | 0 |
| lineSpeed | 800000 | 800000 |
| bertBitsSent | 27568729149840 | 27142124349520 |
| bertBitsReceived | 27568726033040 | 27142124352000 |
| bertBitErrorsReceived | 22428165 | 40 |
| bertBitErrorRatio | 8.140000e-07 | 1.470000e-12 |
| centralTemperature | 42 | 42 |
| portTemperature | 47 | 49 |
| pcpuFpgaTemperature | 33 | 33 |
| bertTransmitDuration | 00:01:26.302649260 | 00:01:25.814206540 |
| encoding | PAM4 106G | PAM4 106G |
| transceiverTemp | 49 | 53 |
| transceiverVoltage | 3.2284000000000002 | 3.2484999999999999 |
| minLatency | 0 | 0 |
| averageLatency | 0 | 0 |
| maxLatency | 0 | 0 |