|  |  |
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Keysight Test Report

**PASS**

|  |  |
| --- | --- |
| Report Header: | Keysight Inc. |
| Report Date: | 2025/06/04 00:34:41 |
| Type: | Unframed |

# SUMMARY

|  |  |
| --- | --- |
| IxOS Version | 10.00.1000.17 |
| Test Start Time | 2025/06/04 00:33:08 |
| Test End Time | 2025/06/04 00:34:41 |
| 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 | 3.23 dBm | 229.432 mA | 0.65 dBm | No | No |
| 2 | 2.1 | Activated (4) | No | No | 2 | 2.77 dBm | 230.768 mA | 2.47 dBm | No | No |
| 3 | 2.1 | Activated (4) | No | No | 3 | 1.44 dBm | 213.600 mA | 1.57 dBm | No | No |
| 4 | 2.1 | Activated (4) | No | No | 4 | 1.69 dBm | 213.840 mA | -3.89 dBm | No | No |
| 5 | 2.1 | Activated (4) | No | No | 5 | 3.16 dBm | 213.960 mA | 0.35 dBm | No | No |
| 6 | 2.1 | Activated (4) | No | No | 6 | 2.90 dBm | 214.088 mA | 0.13 dBm | No | No |
| 7 | 2.1 | Activated (4) | No | No | 7 | 3.05 dBm | 213.112 mA | 2.11 dBm | No | No |
| 8 | 2.1 | Activated (4) | No | No | 8 | 2.75 dBm | 213.472 mA | -0.95 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 | 2.46 dBm | 239.648 mA | 3.96 dBm | No | No |
| 2 | 4.1 | Activated (4) | No | No | 2 | 2.16 dBm | 239.648 mA | 3.27 dBm | No | No |
| 3 | 4.1 | Activated (4) | No | No | 3 | 2.42 dBm | 214.256 mA | 2.09 dBm | No | No |
| 4 | 4.1 | Activated (4) | No | No | 4 | 2.33 dBm | 214.864 mA | 2.32 dBm | No | No |
| 5 | 4.1 | Activated (4) | No | No | 5 | 2.13 dBm | 184.472 mA | 3.55 dBm | No | No |
| 6 | 4.1 | Activated (4) | No | No | 6 | 2.09 dBm | 183.976 mA | 3.44 dBm | No | No |
| 7 | 4.1 | Activated (4) | No | No | 7 | 2.21 dBm | 181.904 mA | 3.28 dBm | No | No |
| 8 | 4.1 | Activated (4) | No | No | 8 | 2.14 dBm | 181.784 mA | 2.22 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-31 | PRBS-31 | 3119709418960.0 | 3119709417600.0 | 12.0 | 6.042000e-11 |
| **0** | lock | PRBS-31 | PRBS-31 | 380007487600 | 380007486720 | 0 | 0.000000e+00 |
| **1** | lock | PRBS-31 | PRBS-31 | 380007487680 | 380007486720 | 2 | 1.052000e-11 |
| **2** | lock | PRBS-31 | PRBS-31 | 380007487680 | 380007486720 | 0 | 0.000000e+00 |
| **3** | lock | PRBS-31 | PRBS-31 | 380007487680 | 380007488640 | 1 | 5.260000e-12 |
| **4** | lock | PRBS-31 | PRBS-31 | 380007487680 | 380007486720 | 1 | 5.260000e-12 |
| **5** | lock | PRBS-31 | PRBS-31 | 406557326880 | 406557327360 | 2 | 9.840000e-12 |
| **6** | lock | PRBS-31 | PRBS-31 | 406557326880 | 406557327360 | 6 | 2.954000e-11 |
| **7** | lock | PRBS-31 | PRBS-31 | 406557326880 | 406557327360 | 0 | 0.000000e+00 |

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-31 | PRBS-31 | 3295270790480.0 | 3295270786560.0 | 270.0 | 1.326500e-09 |
| **0** | lock | PRBS-31 | PRBS-31 | 406976525680 | 406976524800 | 0 | 0.000000e+00 |
| **1** | lock | PRBS-31 | PRBS-31 | 406976525600 | 406976526720 | 2 | 9.830000e-12 |
| **2** | lock | PRBS-31 | PRBS-31 | 406976525760 | 406976524800 | 126 | 6.193000e-10 |
| **3** | lock | PRBS-31 | PRBS-31 | 406976525600 | 406976524800 | 0 | 0.000000e+00 |
| **4** | lock | PRBS-31 | PRBS-31 | 406976525680 | 406976524800 | 63 | 3.100000e-10 |
| **5** | lock | PRBS-31 | PRBS-31 | 406976525680 | 406976524800 | 66 | 3.247000e-10 |
| **6** | lock | PRBS-31 | PRBS-31 | 420129387360 | 420129386880 | 10 | 4.882000e-11 |
| **7** | lock | PRBS-31 | PRBS-31 | 433282249120 | 433282248960 | 3 | 1.385000e-11 |

# 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 | 400000 | 400000 |
| bertBitsSent | 13921447832240 | 13915237528160 |
| bertBitsReceived | 13921447831680 | 13915237524480 |
| bertBitErrorsReceived | 70 | 1062 |
| bertBitErrorRatio | 5.030000e-12 | 7.630000e-11 |
| centralTemperature | 43 | 43 |
| portTemperature | 48 | 50 |
| pcpuFpgaTemperature | 33 | 33 |
| bertTransmitDuration | 00:47:06.988845340 | 00:47:06.998363300 |
| encoding | Unknown | Unknown |
| transceiverTemp | 51 | 55 |
| transceiverVoltage | 3.2269000000000001 | 3.2418999999999998 |
| minLatency | 0 | 0 |
| averageLatency | 0 | 0 |
| maxLatency | 0 | 0 |