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Keysight Test Report

**PASS**

|  |  |
| --- | --- |
| Report Header: | Keysight Inc. |
| Report Date: | 2025/06/18 15:03:37 |
| Type: | Framed |

# SUMMARY

|  |  |
| --- | --- |
| IxOS Version | 10.00.1000.17 |
| Test Start Time | 2025/06/18 15:01:53 |
| Test End Time | 2025/06/18 15:03:37 |
| Test Duration | 00:00:30 |
| Pass/Fail Verdict | PASS |
| Module Type | 1,1,1 - 100GBASE-DR |
| Module Version | 1,1,1 - CMIS 5.0 |
| Serial Number | 1,1,1 - DN4D180001 |

# Transceiver DOM (Digital Optical Monitoring) - 128

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **1,1,1** | | | | | | | | | | |
| **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 | 1.1 | Activated (4) | No | No | 1 | 3.33 dBm | 228.360 mA | 3.87 dBm | No | No |
| 2 | 1.1 | Activated (4) | No | No | 2 | 2.90 dBm | 228.480 mA | 3.74 dBm | No | No |
| 3 | 1.1 | Activated (4) | No | No | 3 | 1.43 dBm | 210.496 mA | 3.00 dBm | No | No |
| 4 | 1.1 | Activated (4) | No | No | 4 | 1.70 dBm | 210.736 mA | 3.35 dBm | No | No |
| 5 | 1.1 | Activated (4) | No | No | 5 | 3.12 dBm | 210.376 mA | 4.33 dBm | No | No |
| 6 | 1.1 | Activated (4) | No | No | 6 | 2.83 dBm | 210.616 mA | 2.50 dBm | No | No |
| 7 | 1.1 | Activated (4) | No | No | 7 | 3.20 dBm | 210.008 mA | 4.25 dBm | No | No |
| 8 | 1.1 | Activated (4) | No | No | 8 | 2.89 dBm | 210.248 mA | 3.89 dBm | No | No |

# CMIS Applicatio Select

|  |  |
| --- | --- |
| 1,1,1 |  |
| 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

# BERT Statistics

# FEC Result Summary - 128

|  |  |
| --- | --- |
| **Frame Loss Ratio** | **1,1,1** |
| **Pre-FEC Standard** | 2.400000e-04 |
| **Pre-FEC Pass/Fail Verdict** | **PASS** |
| **Post-FEC Standard** | 9.200000e-13 |
| **Post-FEC Pass/Fail Verdict** | **PASS** |

# PCS Lane Statistics - 128

Port - 1,1,1

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Physical Lane** | **PCS Lane Marker Lock** | **PCS Lane Marker Map** | **Relative Lane Skew (ns)** | **PCS Lane Marker Error Count** | **FEC Symbol Error Count** | **FEC Correct Bit Count** | **FEC Symbol Error** | **FEC Correct Bit Rate** |
| **Totals** | Lock | all | 9.035 | 0.0 | 0.0 | 14.0 | 0.000000e+00 | 1.550545e-11 |
| **0** | Lock | 16 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **1** | Lock | 0 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **2** | Lock | 17 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **3** | Lock | 1 | 0.0 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **4** | Lock | 18 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **5** | Lock | 2 | 0.0 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **6** | Lock | 19 | 0.0 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **7** | Lock | 3 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **8** | Lock | 4 | 6.023 | 0 | 0 | 3 | 0.000000e+00 | 3.343754e-12 |
| **9** | Lock | 20 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **10** | Lock | 5 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **11** | Lock | 21 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **12** | Lock | 6 | 0.0 | 0 | 0 | 4 | 0.000000e+00 | 4.458339e-12 |
| **13** | Lock | 22 | 3.011 | 0 | 0 | 1 | 0.000000e+00 | 1.114585e-12 |
| **14** | Lock | 7 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **15** | Lock | 23 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **16** | Lock | 8 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **17** | Lock | 24 | 6.023 | 0 | 0 | 2 | 0.000000e+00 | 2.196259e-12 |
| **18** | Lock | 9 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **19** | Lock | 25 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **20** | Lock | 10 | 3.011 | 0 | 0 | 1 | 0.000000e+00 | 1.098129e-12 |
| **21** | Lock | 26 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **22** | Lock | 11 | 9.035 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **23** | Lock | 27 | 9.035 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **24** | Lock | 12 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **25** | Lock | 28 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **26** | Lock | 13 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **27** | Lock | 29 | 9.035 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **28** | Lock | 30 | 3.011 | 0 | 0 | 1 | 0.000000e+00 | 1.098129e-12 |
| **29** | Lock | 14 | 0.0 | 0 | 0 | 2 | 0.000000e+00 | 2.196259e-12 |
| **30** | Lock | 31 | 6.023 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |
| **31** | Lock | 15 | 3.011 | 0 | 0 | 0 | 0.000000e+00 | 0.000000e+00 |

# L2 Traffic Test Summary

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Frame Size** | **Tx Count** | **Rx Count** | **Loss Count** | **Loss %** |
| **128** | 20393769204 | 20393769204 | 0 | 0.0 |

# Port Statistics - 128

|  |  |
| --- | --- |
| **Port Statistics** | **Port 1,1,1** |
| link | link up |
| lineSpeed | 800000 |
| transmitDuration | 00:00:30.182778505 |
| framesSent | 20393769204 |
| framesReceived | 20393769204 |
| fragments | 0 |
| undersize | 0 |
| oversizeAndCrcErrors | 0 |
| vlanTaggedFramesRx | 0 |
| flowControlFrames | 0 |
| bitsSent | 20883219664896 |
| bitsReceived | 20883219664896 |
| pcsSyncErrorsReceived | 0 |
| pcsRemoteFaultsReceived | 0 |
| pcsLocalFaultsReceived | 0 |
| fecTotalBitErrors | 14 |
| fecMaxSymbolErrors | 1 |
| fecCorrectedCodewords | 14 |
| fecTotalCodewords | 5167555792 |
| fecFrameLossRatio | 0.000000e+00 |
| preFecBer | 4.980168e-13 |
| fecMaxSymbolErrorsBin0 | 5167555778 |
| fecMaxSymbolErrorsBin1 | 14 |
| fecMaxSymbolErrorsBin2 | 0 |
| fecMaxSymbolErrorsBin3 | 0 |
| fecMaxSymbolErrorsBin4 | 0 |
| fecMaxSymbolErrorsBin5 | 0 |
| fecMaxSymbolErrorsBin6 | 0 |
| fecMaxSymbolErrorsBin7 | 0 |
| fecMaxSymbolErrorsBin8 | 0 |
| fecMaxSymbolErrorsBin9 | 0 |
| fecMaxSymbolErrorsBin10 | 0 |
| fecMaxSymbolErrorsBin11 | 0 |
| fecMaxSymbolErrorsBin12 | 0 |
| fecMaxSymbolErrorsBin13 | 0 |
| fecMaxSymbolErrorsBin14 | 0 |
| fecMaxSymbolErrorsBin15 | 0 |
| fecUncorrectableCodewords | 0 |
| fecTranscodingUncorrectableErrors | 0 |
| l1BitsSent | 24146222737536 |
| l1BitsReceived | 24146222737536 |
| transceiverTemp | 51 |
| encoding | PAM4 106G |
| fecStatus | KP4-FEC |
| transceiverVoltage | 3.2231000000000001 |
| minLatency | 1500000000001 |
| averageLatency | 0 |
| maxLatency | 0 |
| Loss\_Frames | 0 |
| Loss% | 0.0 |