EOM-G103-PHR-PTP Series Quick Installation Guide

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Technical Support Contact Information www.moxa.com/support



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Product Overview

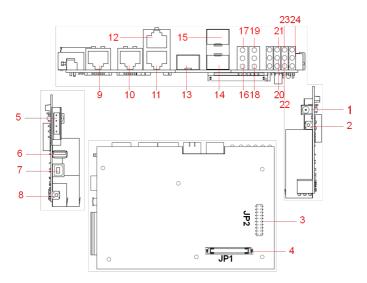
The EOM-G103-PHR-PTP full Gigabit managed redundancy modules are compliant with the latest IEC 62439-3 standards and provide an easy and cost-effective integrated solution for adding a redundancy module to a non-IEC 62439-3 supported product. The modules support two IEC 62439-3 Ethernet ports (SGMII/SERDES(1000Base-X) interface) for constructing PRP or HSR networks and one standard Ethernet port (SGMII/SERDES(1000Base-X) interface) for connecting with standard IEEE 802.3 Ethernet devices. The EOM-G103-PHR-PTP series also provides an extra standard Ethernet port (SGMII/SERDES(1000Base-X) interface) for building up a local access Ethernet console port to easily maintain, control, and manage certain devices right at the local site.

Package Checklist

The EOM-G103-PHR-PTP series evaluation kit packet contains the following items:

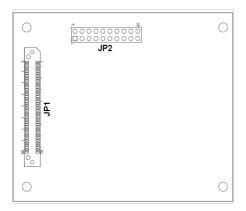
- 1 EOM-G103-PHR-PTP embedded module
- 1 EOM-G103-PHR-PTP evaluation board
- 1 universal power adapter
- · 2 power cords
- 1 cross-over Ethernet cable
- 1 USB-IF complaint cable
- · Warranty card

Layout of the Evaluation Board



- 1. 12 VDC power jack
- 2. System reboot button
- 3. JP2 connector for connecting to EOM-G103 JP2
- 4. JP1 connector for connecting to EOM-G103 JP1
- 5. Terminal block for DI and Relay
- 6. USB storage (ABC-02-USB-T)
- 7. USB console
- 8. Reset to default button
- 9. Ethernet Console port: 10/100/1000BaseT(X)
- 10. Interlink port: 10/100/1000BaseT(X)
- 11. PRP/HSR redundant port B: 10/100/1000BaseT(X)
- 12. PRP/HSR redundant port A: 10/100/1000BaseT(X)
- 13. Interlink port: 100/1000BaseFX
- 14. PRP/HSR redundant port B: 100/1000BaseFX
- 15. PRP/HSR redundant port A: 100/1000BaseFX
- 16. Interlink port LED
- 17. Ethernet console port LED
- 18. Port B LED
- 19. Port A LED
- 20. HSR mode LED
- 21. PRP mode LED
- 22. Fault LED
- 23. STATE LED
- 24. Power LED

Layout of the EOM-G103-PHR-PTP Series



Hardware Installation Procedure

(Before installing the EOM-G103, please check to make sure that all items in the Package Checklist are in the box.)

Step 1: Connect the EOM-G103-PHR-PTP module into the sockets on the top of the evaluation board

Step 2: Connect the power source to the evaluation board

Connect the 12 VDC power line to the evaluation board's power jack.

Step 3: Connect the network cable to the evaluation board

Use the RJ45 Ethernet cable to connect the Ethernet cable to the evaluation Ethernet console port.

Step 4: Set up the connected device IP address

Configure the IP address for the connected device so that the device belongs to the EOM-G103's Subnet. The default IP address of the EOM-G103 is 192.168.127.253 and the subnet mask is 255.255.255.0.

Step 5: Configure the EOM-G103 Series

Please refer to the EOM-G103 user's manual

Pin Assignment

JP1 (2x40 connector pin assignment)

| PIN | SIGNAL | PIN | SIGNAL |
|-----|--------------------|-----|------------------|
| 1 | GND | 41 | PRP_LED |
| 2 | GND | 42 | DI |
| 3 | DTR (UART) | 43 | FAULT_LED |
| 4 | DCD (UART) | 44 | Reserved |
| 5 | RTS (UART) | 45 | STAT_R_LED |
| 6 | DSR (UART) | 46 | Reserved |
| 7 | TXD (UART) | 47 | STAT_G_LED |
| 8 | CTS (UART) | 48 | Reserved |
| 9 | GND | 49 | TX_DIS_G3 (SFP) |
| 10 | RXD (UART) | 50 | GND |
| 11 | GXB_RX_P_0 (SGMII) | 51 | PRESENT_G3 (SFP) |
| 12 | GND | 52 | Reserved |
| 13 | GXB_RX_N_0 (SGMII) | 53 | LOS_G3(SFP) |
| 14 | GXB_TX_P0 (SGMII) | 54 | Reserved |
| 15 | GND | 55 | TX_DIS_G2 (SFP) |
| 16 | GXB_TX_N0 (SGMII) | 56 | GND |
| 17 | GXB_RX_P_1 (SGMII) | 57 | PRESENT_G2 (SFP) |
| 18 | GND | 58 | SDA-(I2C) |
| 19 | GXB_RX_N_1 (SGMII) | 59 | LOS_G2(SFP) |
| 20 | GXB_TX_P1 (SGMII) | 60 | SCK-(I2C) |
| 21 | GND | 61 | TX_DIS_G1 (SFP) |
| 22 | GXB_TX_N1 (SGMII) | 62 | GND |
| 23 | GXB_RX_P_2 (SGMII) | 63 | PRESENT_G1 (SFP) |
| 24 | GND | 64 | MDIO-PHY (SMI) |
| 25 | GXB_RX_N_2 (SGMII) | 65 | LOS_G1(SFP) |
| 26 | GXB_TX_P2 (SGMII) | 66 | MDC-PHY (SMI) |
| 27 | GND | 67 | TX_DIS_G0 (SFP) |
| 28 | GXB_TX_N2 (SGMII) | 68 | GND |
| 29 | GXB_RX_P_3 (SGMII) | 69 | PRESENT_G0 (SFP) |
| 30 | GND | 70 | Reserved |
| 31 | GXB_RX_N_3 (SGMII) | 71 | LOS_G0(SFP) |
| 32 | GXB_TX_P3 (SGMII) | 72 | Reserved |
| 33 | GND | 73 | Reserved |
| 34 | GXB_TX_N3 (SGMII) | 74 | GND |
| 35 | COUP_LED | 75 | Reserved |
| 36 | GND | 76 | USB-HOST-DP |
| 37 | QB_LED | 77 | Reserved |
| 38 | DO(1) | 78 | USB-HOST-DM |
| 39 | HSR_LED | 79 | Reserved |
| 40 | DO(0) | 80 | GND |

JP2 (2x10 connector pin assignment)

| PIN | SIGNAL | PIN | SIGNAL |
|-----|----------|-----|------------------|
| 1 | Reserved | 11 | 3.3V |
| 2 | Reserved | 12 | GND |
| 3 | Reserved | 13 | GND |
| 4 | Reserved | 14 | GND |
| 5 | Reserved | 15 | GND |
| 6 | Reserved | 16 | GND |
| 7 | 3.3V | 17 | Reset_PHY |
| 8 | 3.3V | 18 | Reset |
| 9 | 3.3V | 19 | Reserved |
| 10 | 3.3V | 20 | Reset to Default |