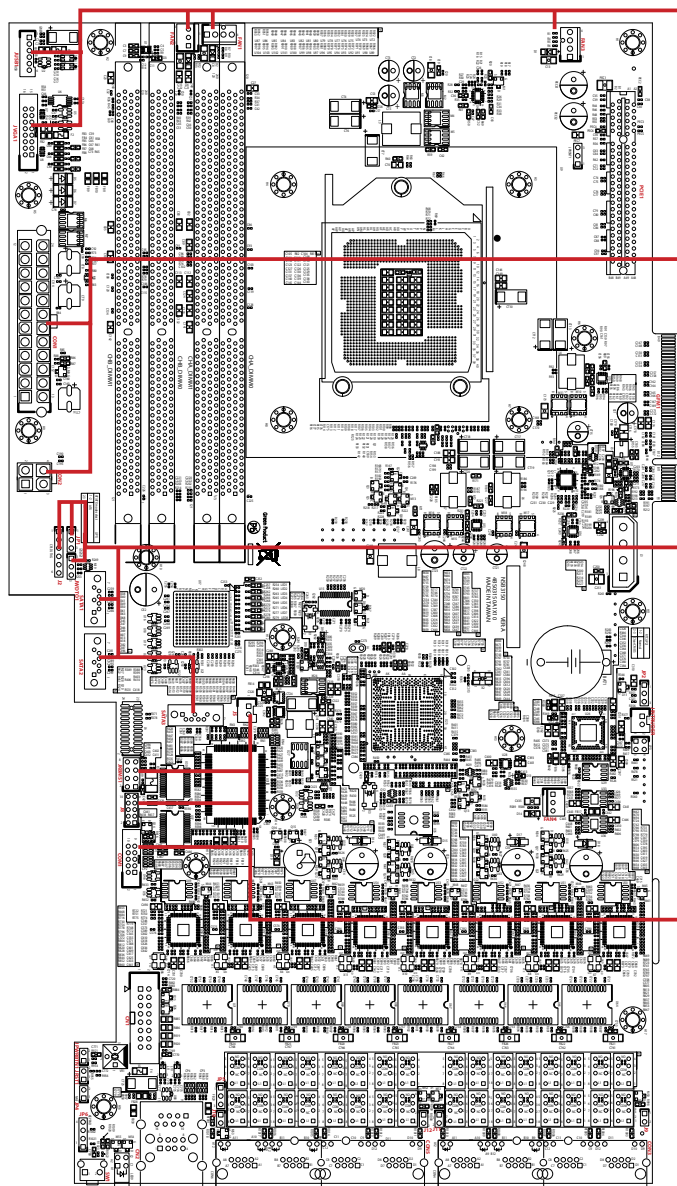


NSA 3150 Quick Reference Guide

Ver A. (P/N: 60177A0347X00)



FAN1,FAN3: SYSTEM FAN CONNECTOR

| | | | | |
|--|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | GND | 03 | Sense |
| | 02 | VCC12 | 04 | FANPWM |

FAN2: SYSTEM FAN CONNECTOR

| | | | | |
|--|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | GND | 03 | Sense |
| | 02 | VCC12 | | |

CON2: Power connector

| | | | | |
|--|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | GND | 03 | VCC12_CPU |
| | 02 | GND | 04 | VCC12_CPU |

CON1: POWER CONNECTOR

| | | | | | | | | | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | VCC3 | 04 | VCC5 | 07 | GND | 10 | VCC12 | 13 | VCC3 | 16 | SIO_PSON_N | 19 | GND | 22 | VCC5 |
| | 02 | VCC3 | 05 | GND | 08 | ATXPWROK | 11 | VCC12 | 14 | NVCC12 | 17 | GND | 20 | GND | 23 | VCC5 |
| | 03 | GND | 06 | VCC5 | 09 | 5VSB | 12 | VCC3 | 15 | GND | 18 | GND | 21 | VCC5 | 24 | GND |

JP1: ATX/AT SELECT

| | | | | |
|--|-----|---------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | NC | 03 | GND |
| | 02 | AT_ATX_SELECT | | |

JWDTO 1: WDTO PIN HEADER

| | | | | |
|--|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | NML_WDTO | 03 | RST_WDTO |
| | 02 | SIO_WDTO | | |

J2: GAL PROGRAMING CONNECTOR

| | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description |
| | 01 | 3VSB | 03 | GAL_TCK | 05 | GAL_TDI |
| | 02 | GND | 04 | GAL_TDO | 06 | GAL_TMS |

JKBMS1: KEYBOARD & MOUSE CONNECTOR

| | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description |
| | 01 | VCC5 | 04 | MDAT | 07 | GND |
| | 02 | VCC5 | 05 | KCLK | 08 | GND |
| | 03 | KDAT | 06 | MCLK | | |

J5: SATA DOM POWER CONNECTOR

| | | | | |
|--|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description |
| | 01 | VCC5 | 02 | GND |

JUSB1: USB2 BOX HEADER 2.0MM

| | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description |
| | 01 | 5VDUAL | 03 | USB0+ | 05 | USB1+ |
| | 02 | USB0- | 04 | USB1- | 06 | GND |

JVGA1: VGA CONNECTOR

| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|--------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | RED_VGA | 05 | GND | 09 | VGA_+5V | 13 | HSYNC_VGA |
| | 02 | GREEN_VGA | 06 | GND | 10 | GND | 14 | VSYNC_VGA |
| | 03 | BLUE_VGA | 07 | GND | 11 | NC | 15 | DDC_CLK_VGA |
| | 04 | NC | 08 | GND | 12 | DDC_DATA_VGA | 16 | NC |

SATA1: SATA CONNECTOR

| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | GND | 03 | SATA_TX2N | 05 | SATA_RX2N | 07 | GND |
| | 02 | SATA_TX2P | 04 | GND | 06 | SATA_RX2P | | |

SATA2: SATA CONNECTOR

| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | GND | 03 | SATA_TX0N | 05 | SATA_RX0N | 07 | GND |
| | 02 | SATA_TX0P | 04 | GND | 06 | SATA_RX0P | | |

SATA3: SATA CONNECTOR

| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | GND | 03 | SATA_TX1N | 05 | SATA_RX1N | 07 | GND |
| | 02 | SATA_TX1P | 04 | GND | 06 | SATA_RX1P | | |

J8: DIGITAL IO 4 INPUT/4 OUTPUT

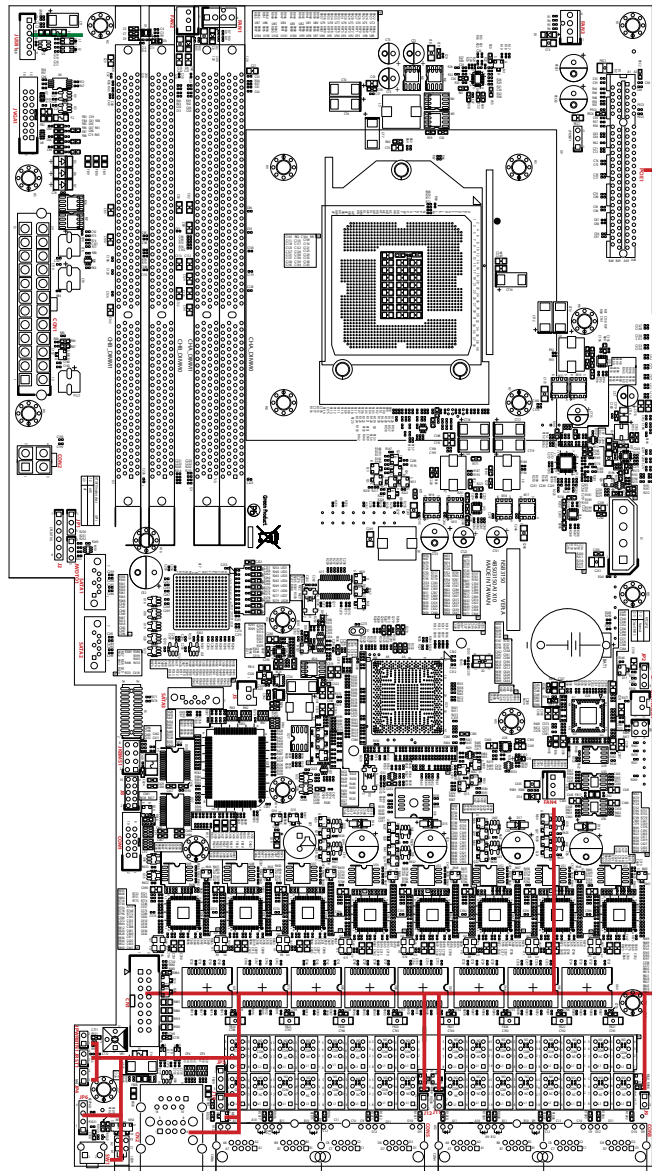
| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | VCC5 | 04 | GP06 | 07 | SIO_GP04 | 10 | SIO_GP77 |
| | 02 | GND | 05 | SIO_GP03 | 08 | SIO_GP76 | | |
| | 03 | SIO_GP32 | 06 | SIO_GP07 | 09 | SIO_GP05 | | |

COM1: COM2

| | | | | | | | | |
|--|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
| | 01 | SP_DCD2 | 04 | SP_DTR2 | 07 | SP_RTS2 | 10 | GND |
| | 02 | SP_RXD2 | 05 | GND | 08 | SP_CTS2 | | |
| | 03 | SP_TXD2 | 06 | SP_DSR2 | 09 | SP_RI2 | | |

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PCIE1: PCI-E SLOT

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|---------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| A1 | PRSN1 | A18 | GND | A35 | PEG_SRXP4 | B1 | VCC12 | B18 | GND | B35 | GND |
| A2 | VCC12 | A19 | NC | A36 | PEG_SRNX4 | B2 | VCC12 | B19 | PEG_STXP1 | B36 | GND |
| A3 | VCC12 | A20 | GND | A37 | GND | B3 | VCC12 | B20 | PEG_STXN1 | B37 | PEG_STXP5 |
| A4 | GND | A21 | PEG_SRXP1 | A38 | GND | B4 | GND | B21 | GND | B38 | PEG_STXN5 |
| A5 | NC | A22 | PEG_SRXN1 | A39 | PEG_SRXP5 | B5 | SLOT_SMC | B22 | GND | B39 | GND |
| A6 | NC | A23 | GND | A40 | PEG_SRXN5 | B6 | SLOT_SMD | B23 | PEG_STXP2 | B40 | GND |
| A7 | NC | A24 | GND | A41 | GND | B7 | GND | B24 | PEG_STXN2 | B41 | PEG_STXP6 |
| A8 | NC | A25 | PEG_SRXP2 | A42 | GND | B8 | VCC3 | B25 | GND | B42 | PEG_STXN6 |
| A9 | VCC3 | A26 | PEG_SRXN2 | A43 | PEG_SRXP6 | B9 | NC | B26 | GND | B43 | GND |
| A10 | VCC3 | A27 | GND | A44 | PEG_SRXN6 | B10 | 3VSB | B27 | PEG_STXP3 | B44 | GND |
| A11 | RST_X8_SLOT_N | A28 | GND | A45 | GND | B11 | PCIE_WAKE_L | B28 | PEG_STXN3 | B45 | PEG_STXP7 |
| A12 | GND | A29 | PEG_SRXP3 | A46 | GND | B12 | NC | B29 | GND | B46 | PEG_STXN7 |
| A13 | CK_SLOT2_DP | A30 | PEG_SRXN3 | A47 | PEG_SRXP7 | B13 | GND | B30 | NC | B47 | GND |
| A14 | CK_SLOT2_DN | A31 | GND | A48 | PEG_SRXN7 | B14 | PEG_STXP0 | B31 | PCIE_PRSN1 | B48 | PCIE_PRSN1 |
| A15 | GND | A32 | NC | A49 | GND | B15 | PEG_STXN0 | B32 | GND | B49 | GND |
| A16 | PEG_SRXP0 | A33 | NC | | | B16 | GND | B33 | PEG_STXP4 | | |
| A17 | PEG_SRXN0 | A34 | GND | | | B17 | PCIE_PRSN1 | B34 | PEG_STXN4 | | |

CN1: PARALLEL INTERFACE FOR LCM MODULE

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| 01 | VCC5 | 03 | LPT_SLIN#R | 05 | LPT_AFD#R | 07 | LPT_PDR1 | 09 | LPT_PDR3 | 11 | LPT_PDR5 | 13 | LPT_PDR7 | 15 | LPT_PW |
| 02 | GND | 04 | LPT_RES | 06 | LPT_INIT#R | 08 | LPT_PDR0 | 10 | LPT_PDR2 | 12 | LPT_PDR4 | 14 | LPT_PDR6 | 16 | VCC5 |

CN2: COM1 and USB

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|-----|-------------|
| 01 | 5VDUAL | 03 | USB2+ | 05 | 5VDUAL | 07 | 0USB3+ | 09 | SP_RTS1_R | 11 | SP_TXD1_R | 13 | SP_DCD1_R | 15 | SP_DSR1_R |
| 02 | USB2- | 04 | GND | 06 | USB3- | 08 | GND | 10 | SP_DTR1_R | 12 | GND | 14 | SP_RXD1_R | 16 | SP_CTS1_CON |

JP4: NMI PIN HEADER

| Pin | Description |
|-----|-------------|
| 01 | NMI_SW- |
| 02 | GND |

JP5: CONSOLE PIN HEADER

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | SP_RTS1_R | 03 | SP_CTS1_CON |
| 02 | SP_CTS1_R | | |

JP6: KEY PAD PIN HEADER

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | KEY_PIN1 | 03 | KEY_PIN3 |
| 02 | KEY_PIN2 | 04 | KEY_PIN4 |

JPWRBTN1: POWER BUTTON PIN HEADER

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | GND | 02 | FP_PWRBTN_N |

JRST1: HW_RESET PIN HEADER

| Pin | Description | Pin | Description |
|-----|-------------------|-----|-------------|
| 01 | PCH_SYS_RESET_N_R | 02 | GND |

J10: BYPASS LED PIN HEADER

| Pin | Description |
|-----|---------------|
| 01 | VCC3 |
| 02 | BYPASS_LED_S1 |

J11: BYPASS LED PIN HEADER

| Pin | Description |
|-----|---------------|
| 01 | VCC3 |
| 02 | BYPASS_LED_S3 |

SW1: SOFTWARE PUSH BUTTON

| Pin | Description |
|-----|-------------|
| 01 | GND |
| 02 | SW_BTN_IN |

J12: BYPASS LED PIN HEADER

| Pin | Description |
|-----|---------------|
| 01 | VCC3 |
| 02 | BYPASS_LED_S2 |

JP2: RTC Clear

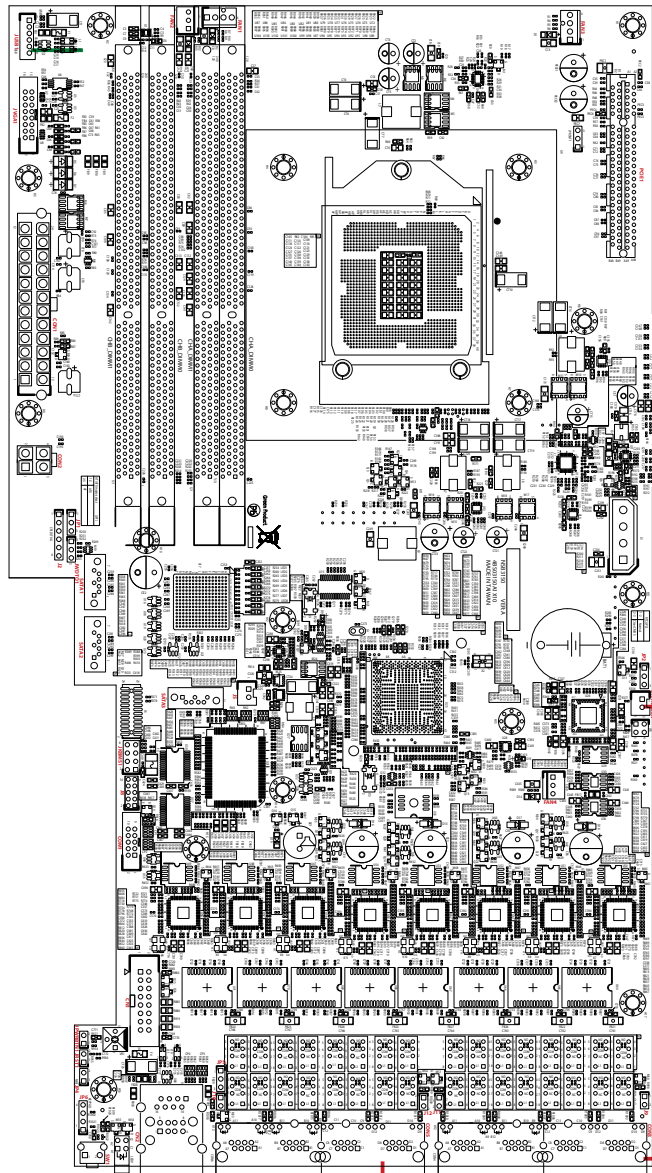
| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | VCCRTC | 03 | GND |
| 02 | RTC_RST# | | |

FAN4: SYSTEM FAN CONNECTOR

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | GND | 03 | Sense |
| 02 | VCC12 | | |

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GFM1: PCI-E GOLDEN FINGER (FOR LAN MODULE)

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|-------------|-----|--------------|-----|-------------|-----|---------------|-----|--------------|-----|-------------|-----|-------------|
| A1 | RST_X8_GF_N | A18 | CLK_GF_33M | A35 | PEG_TXN3 | B1 | PCIE3_SEL1 | B18 | USB_4N | B35 | PEG_RXN3 | | |
| A2 | LPC_AD0 | A19 | VCC3_3 | A36 | GND | B2 | PCIE3_SEL2 | B19 | VCC3_3 | B36 | GND | | |
| A3 | LPC_AD1 | A20 | AUX_TEMP | A37 | PEG_TXP4 | B3 | PCIE3_SEL3 | B20 | VCC3_3 | B37 | PEG_RXP4 | | |
| A4 | LPC_AD2 | A21 | CPU- | A38 | PEG_TXN4 | B4 | VCC3_3 | B21 | VCC3_3 | B38 | PEG_RXN4 | | |
| A5 | LPC_AD3 | A22 | ATX_PWROK_A1 | A39 | GND | B5 | SMB_CLK_MAIN | B22 | ATX_PWROK_A1 | B39 | GND | | |
| A6 | LPC_FRAME_N | A23 | ATX_PWROK_A1 | A40 | PEG_TXP5 | B6 | SMB_DATA_MAIN | B23 | ATX_PWROK_A1 | B40 | PEG_RXP5 | | |
| A7 | VCC3_3 | A24 | GND | A41 | PEG_TXN5 | B7 | VCC3_3 | B24 | GND | B41 | PEG_RXN5 | | |
| A8 | RST_X8_GF_N | A25 | PEG_TXP0 | A42 | GND | B8 | VCC3_3 | B25 | PEG_RXP0 | B42 | GND | | |
| A9 | VCC3_3 | A26 | PEG_TXN0 | A43 | PEG_TXP6 | B9 | GF_SUSCLK | B26 | PEG_RXN0 | B43 | PEG_RXP6 | | |
| A10 | VCC3_3 | A27 | GND | A44 | PEG_TXN6 | B10 | VCC3_3 | B27 | GND | B44 | PEG_RXN6 | | |
| A11 | ALL_PWRGD | A28 | PEG_TXP1 | A45 | GND | B11 | SMB_ALERT_N | B28 | PEG_RXP1 | B45 | GND | | |
| A12 | SYS_FAN | A29 | PEG_TXN1 | A46 | PEG_TXP7 | B12 | USB_OC45# | B29 | PEG_RXN1 | B46 | PEG_RXP7 | | |
| A13 | VCC3_3 | A30 | GND | A47 | PEG_TXN7 | B13 | WAKE_N | B30 | GND | B47 | PEG_RXN7 | | |
| A14 | VCC3_3 | A31 | PEG_TXP2 | A48 | GND | B14 | 3VSB | B31 | PEG_RXP2 | B48 | GND | | |
| A15 | CK_SLOT1_DP | A32 | PEG_TXN2 | A49 | GND | B15 | 3VSB | B32 | PEG_RXN2 | B49 | GND | | |
| A16 | CK_SLOT1_DN | A33 | GND | | | B16 | 3VSB | B33 | GND | | | | |
| A17 | VCC3_3 | A34 | PEG_TXP3 | | | B17 | USB_4P | B34 | PEG_RXP3 | | | | |

JINTRUDER: INTRUSIN DETECT CONNECTOR

| Pin | Description | Pin | Description |
|-----|-------------|-----|-------------|
| 01 | INTRUDER_N | 02 | GND |

J9: BYPASS LED PIN HEADER

| Pin | Description | Pin | Description |
|-----|-------------|-----|---------------|
| 01 | VCC3 | 02 | BYPASS_LED_S4 |

CON3: LAN Connector

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|---------------|-----|---------------|-----|------------------|-----|-------------------|-----|---------------|-----|---------------|-----|-------------|
| A1 | LAN5_TXP0_CON | A2 | LAN5_TXN0_CON | A3 | LAN1_TXP1_CON | A4 | LAN1_TXP2_CON | A5 | LAN5_TXN2_CON | A6 | LAN5_TXN1_CON | | |
| A7 | LAN5_TXP3_CON | A8 | LAN5_TXN3_CON | A9 | LAN5_LED_LINK1G# | A10 | LAN5_LED_LINK100# | A11 | LAN5_LED_ACT# | A12 | LAN5_ACTPW | | |
| B1 | LAN6_TXP0_CON | B2 | LAN6_TXN0_CON | B3 | LAN6_TXP1_CON | B4 | LAN6_TXP2_CON | B5 | LAN6_TXN2_CON | B6 | LAN6_TXN1_CON | | |
| B7 | LAN6_TXP3_CON | B8 | LAN6_TXN3_CON | B9 | LAN6_LED_LINK1G# | B10 | LAN6_LED_LINK100# | B11 | LAN6_LED_ACT# | B12 | LAN6_ACTPW | | |
| C1 | LAN7_TXP0_CON | C2 | LAN7_TXN0_CON | C3 | LAN7_TXP1_CON | C4 | LAN7_TXP2_CON | C5 | LAN7_TXN2_CON | C6 | LAN7_TXN1_CON | | |
| C7 | LAN7_TXP3_CON | C8 | LAN7_TXN3_CON | C9 | LAN7_LED_LINK1G# | C10 | LAN7_LED_LINK100# | C11 | LAN7_LED_ACT# | C12 | LAN7_ACTPW | | |
| D1 | LAN8_TXP0_CON | D2 | LAN8_TXN0_CON | D3 | LAN8_TXP1_CON | D4 | LAN8_TXP2_CON | D5 | LAN8_TXN2_CON | D6 | LAN8_TXN1_CON | | |
| D7 | LAN8_TXP3_CON | D8 | LAN8_TXN3_CON | D9 | LAN8_LED_LINK1G# | D10 | LAN8_LED_LINK100# | D11 | LAN8_LED_ACT# | D12 | LAN8_ACTPW | | |

CON5: LAN Connector

| Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description | Pin | Description |
|-----|---------------|-----|---------------|-----|------------------|-----|-------------------|-----|---------------|-----|---------------|-----|-------------|
| A1 | LAN1_TXP0_CON | A2 | LAN1_TXN0_CON | A3 | LAN1_TXP1_CON | A4 | LAN1_TXP2_CON | A5 | LAN1_TXN2_CON | A6 | LAN1_TXN1_CON | | |
| A7 | LAN1_TXP3_CON | A8 | LAN1_TXN3_CON | A9 | LAN1_LED_LINK1G# | A10 | LAN1_LED_LINK100# | A11 | LAN1_LED_ACT# | A12 | LAN1_ACTPW | | |
| B1 | LAN2_TXP0_CON | B2 | LAN2_TXN0_CON | B3 | LAN2_TXP1_CON | B4 | LAN2_TXP2_CON | B5 | LAN2_TXN2_CON | B6 | LAN2_TXN1_CON | | |
| B7 | LAN2_TXP3_CON | B8 | LAN2_TXN3_CON | B9 | LAN2_LED_LINK1G# | B10 | LAN2_LED_LINK100# | B11 | LAN2_LED_ACT# | B12 | LAN2_ACTPW | | |
| C1 | LAN3_TXP0_CON | C2 | LAN3_TXN0_CON | C3 | LAN3_TXP1_CON | C4 | LAN3_TXP2_CON | C5 | LAN3_TXN2_CON | C6 | LAN3_TXN1_CON | | |
| C7 | LAN3_TXP3_CON | C8 | LAN3_TXN3_CON | C9 | LAN3_LED_LINK1G# | C10 | LAN3_LED_LINK100# | C11 | LAN3_LED_ACT# | C12 | LAN3_ACTPW | | |
| D1 | LAN4_TXP0_CON | D2 | LAN4_TXN0_CON | D3 | LAN4_TXP1_CON | D4 | LAN4_TXP2_CON | D5 | LAN4_TXN2_CON | D6 | LAN4_TXN1_CON | | |
| D7 | LAN4_TXP3_CON | D8 | LAN4_TXN3_CON | D9 | LAN4_LED_LINK1G# | D10 | LAN4_LED_LINK100# | D11 | LAN4_LED_ACT# | D12 | LAN4_ACTPW | | |

For further information & manual, please visit our website. Web: <http://www.nexcom.com>

