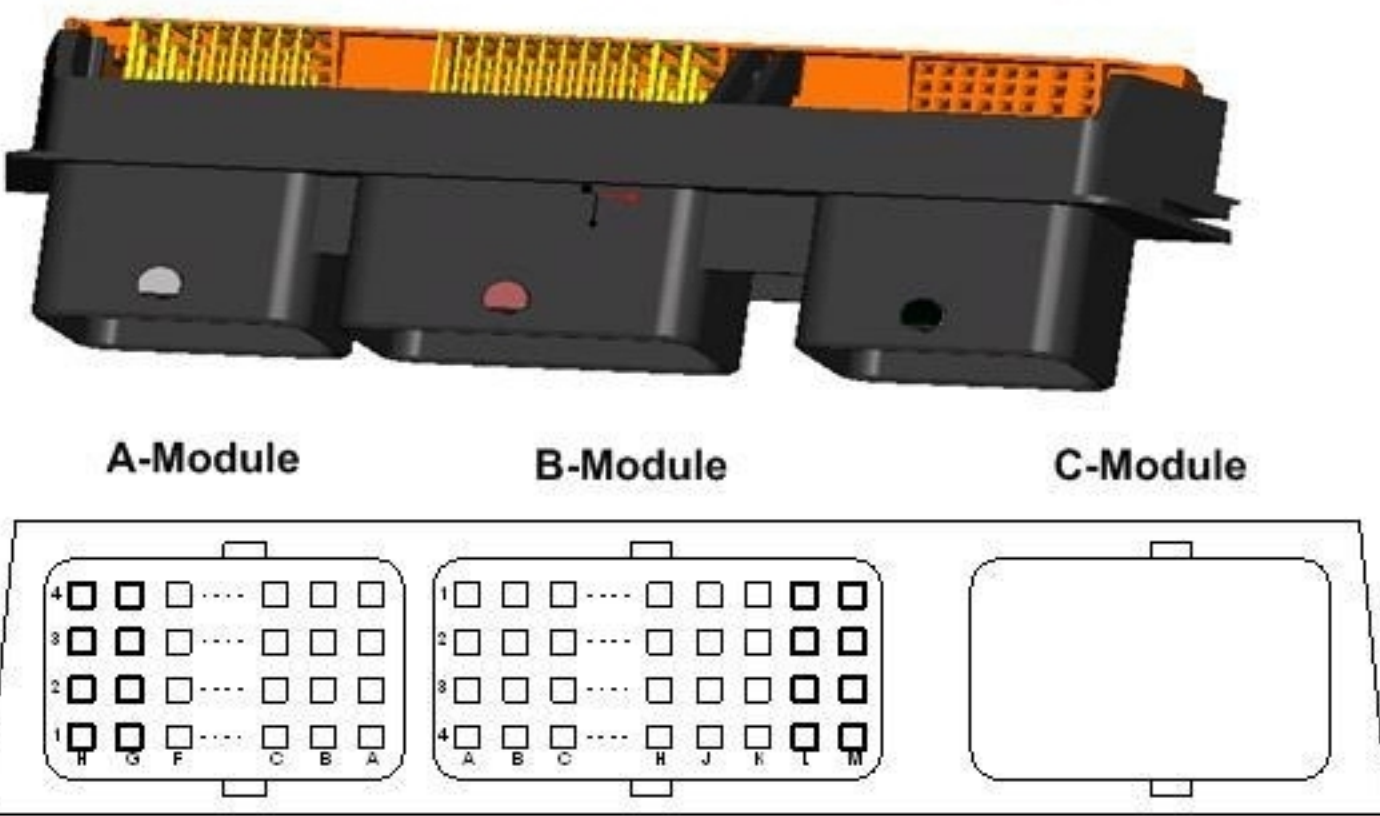


NOTES

Node description  
1: Battery voltage after main relay supply, V\_EL  
2: Battery voltage after ignition key supply, V\_IGK  
3: Direct battery voltage supply, VBD

Pin-header, 80-pin 3module (Connector of CNG interface Box side)  
> Molex part number: 98228-1011



Pin definition

|   |    |                     |                                     |
|---|----|---------------------|-------------------------------------|
| A | H4 | ECU_GND             | ECU ground                          |
|   | H3 | PWR_GND             | Power stage ground                  |
|   | H2 | SOV_GAS_H_3         | GAS shut off valve high 3           |
|   | H1 | SOV_GAS_H_1         | GAS shut off valve high 1           |
|   | G4 | VBD                 | Direct battery voltage supply       |
|   | G3 | V_EL                | Battery voltage after main relay    |
|   | G2 | SOV_GAS_PCD         | GAS shut off valve PCD              |
|   | G1 | SOV_GAS_H_2         | GAS shut off valve high 2           |
|   | F4 | BOOTSTRAP           | Bootstrap heater activation         |
|   | F3 | FUEL_CLOSE          | Fuel cut close                      |
|   | F2 | CNG_FTL_PWM         | CNG fuel tank level output PWM      |
|   | F1 | FTL_LAMP            | Fuel tank empty lamp                |
|   | E4 | FUEL_SELECTED_RELAY | Fuel selected relay                 |
|   | E3 | FUEL_TYPE_BOX       | Fuel selected LED 2                 |
|   | E2 | FUEL_SELECTED_RELAY | Fuel selected relay                 |
|   | E1 | SEL_FUEL_1          | Fuel selected LED 1                 |
|   | D4 | (TBD)               | Sole of pump relay (PPR)            |
|   | D3 | Gasoline_FTL_PWM    | Gasoline fuel tank level output PWM |
|   | D2 | SPARE_3             |                                     |
|   | D1 | V_IGK               | Battery voltage after ignition key  |
|   | C4 | TS                  | Tachometer speed input              |

|   |    |                  |                                |
|---|----|------------------|--------------------------------|
| B | A1 | TGAS_L           | GAS temperature low side input |
|   | A3 | TGAS_PCD         | GAS temperature PCD            |
|   | A4 | GND_TGAS_PCD     | TGAS_PCD ground                |
|   | B2 | VCC_PGAS_L       | PGAS low VCC supply            |
|   | B3 | PGAS_L           | GAS Pressure low side          |
|   | B4 | GND_PGAS_L       | PGAS_low Ground                |
|   | C1 | GND_LS_GAS_1     | Lambda sensor 1 ground         |
|   | C2 | FTL_Gasoline     | FTL_Gasoline                   |
|   | C3 | FTL_Gasoline     | Gasoline fuel level            |
|   | C4 | GND_Gasoline_FTL | GFL Ground                     |
|   | D1 | LS_GAS_2         | Lambda sensor 2                |
|   | D2 | VCC_FTL          | FTL VCC supply                 |
|   | D3 | FTL              | Fuel tank level                |
|   | D4 | GND_FTL          | FTL ground                     |
|   | E1 | GND_LS_GAS_2     | Lambda sensor 2 ground         |
|   | E2 | TCO              | Coolant temperature            |
|   | E3 | GND_TCO          | TCO ground                     |
|   | E4 | BFS_AN           | Bi-fuel switch analog input    |
|   | F1 | TCO_COR_OUT      | Temperature output             |
|   | F2 | GND_TCO_COR_OUT  | Ground                         |

|  |    |            |  |
|--|----|------------|--|
|  | G1 | IV_1       | Gasoline injector 1                    |
|  | G2 | IV_2       | Gasoline injector 2                    |
|  | G3 | IV_3       | Gasoline injector 3                    |
|  | G4 | IV_4       | Gasoline injector 4                    |
|  | H1 | IV_1_IN    | Injector 1 input                       |
|  | H2 | IV_2_IN    | Injector 2 input                       |
|  | H3 | IV_3_IN    | Injector 3 input                       |
|  | H4 | IV_4_IN    | Injector 4 input                       |
|  | J1 | IV_5_IN    | Injector 5 input                       |
|  | J2 | IV_6_IN    | Injector 6 input                       |
|  | J3 | (TBD)      | Info fuel selected from ECU (CNG_FUEL) |
|  | J4 | BFS_DIG    | Bi-fuel switch digital input           |
|  | K1 | IV_5       | Gasoline injector 5                    |
|  | K3 | SOV_GAS_2  | GAS shut off valve 2                   |
|  | K4 | SPARE_1    | Reserve activation                     |
|  | L1 | IV_GAS_2   | LPG/CNG injector 2                     |
|  | L2 | IV_GAS_1   | LPG/CNG injector 1                     |
|  | L3 | SOV_GAS_1  | GAS shut off valve 1                   |
|  | L4 | IV_GAS_H_5 | CNG shut off valve 5                   |
|  | M1 | IV_GAS_4   | LPG/CNG injector 4                     |
|  | M2 | IV_GAS_3   | LPG/CNG injector 3                     |

