CM4

Module1A
ComputeModule4-CM4
Hirose
2x DF40C-100DS-0.4V

GND
TRD1_P — Ethernet_Pair1_P
TRD1_N — Ethernet_Pair1_N
TRD0_N — Ethernet_Pair0_N
TRD0_P — Ethernet_Pair0_P
GND
EEPROM_nWP — Ethernet_SYNC_IN(1.8v)
Ethernet_SYNC_OUT(1.8v)
EEPROM_nWP
GND
GPIO26
GPIO19
GPIO13
GPIO6
GND
GPIO5
ID_SD
GPIO11
GPIO9
GND
GPIO10
GPIO22
GPIO27
GPIO17
GND
GPIO4
GPIO3
GPIO2
GND
SD_CMD
SD_DAT5
GND
SD_DAT4
SD_DAT7
SD_DAT6
GND
Reserved
CM4_3V3 — Reserved
SCLO — GPIO_VREF(1.8v/3.3v_input)
SDAO — SCLO
CM4_3V3 — SDAO
+3.3v_(Output) 600mA Max
+3.3v_(Output)
RUN_PG — +1.8v_(Output) 600mA Max
+1.8v_(Output)
RUN_PG
AnalogIP1
AnalogIP0
GND
nEXTRST

GND
Ethernet_Pair3_P — TRD3_P
Ethernet_Pair3_N — TRD3_N
Ethernet_Pair2_N — TRD2_N
Ethernet_Pair2_P — TRD2_P
GND
Ethernet_nLED3(3.3v) — ETH_LEDY
Ethernet_nLED2(3.3v) — ETH_LEDG
Ethernet_nLED1(3.3v)
PI_nLED_Activity — PI_nLED_Activity
GPIO21
GPIO20
GPIO16
GPIO12
GND
GPIO7
GPIO8
GPIO25
GPIO24
GPIO23
GPIO18
GPIO15
GND
SD_CLK — SD_CLK
SD_DAT3 — SD_DAT3
SD_DAT0 — SD_DAT0
GND
SD_DAT1 — SD_DAT1
SD_DAT2 — SD_DAT2
GND
SD_VDD_Override — SD_VDD_Override
SD_PWR_ON — SD_PWR_ON
+5v_(Input) — CM4_5V
+5v_(Input)
+5v_(Input)
+5v_(Input)
+5v_(Input)
+5v_(Input)
WIFI_nDisable — WIFI_nDisable
BT_nDisable — BT_nDisable
nRPIBOOT — nRPIBOOT
nPI_LED_PWR — nPI_LED_PWR
Camera_GPIO
Global_EN — Global_EN

GPIO

NB SD signals are only available
on modules without eMMC

Module1B
ComputeModule4-CM4
Hirose
2x DF40C-100DS-0.4V

High Speed Serial

PCIe_CLK_nREQ — USB_OTG_ID — USB_OTG_ID
Reserved — USB2_N — USB2_N
Reserved — USB2_P — USB2_P
GND — GND
PCIe_CLK_P — PCIe_nRST
PCIe_CLK_N — VDAC_COMP
GND
PCIe_RX_P — CAM1_D0_N
PCIe_RX_N — CAM1_D0_P
GND
PCIe_TX_P — CAM1_D1_N
PCIe_TX_N — CAM1_D1_P
GND
CAM0_D0_N — CAM1_C_N
CAM0_D0_P — CAM1_C_P
GND
CAM0_D1_N — CAM1_D2_N
CAM0_D1_P — CAM1_D2_P
GND
CAM0_C_N — CAM1_D3_N
CAM0_C_P — CAM1_D3_P
GND — HDMI1_HOTPLUG
HDMI1_TX2_P — HDMI1_SDA
HDMI1_TX2_N — HDMI1_SCL
GND — HDMI1_CEC
HDMI1_TX1_P — HDMI0_CEC
HDMI1_TX1_N — HDMI0_HOTPLUG
GND
HDMI1_TX0_P — DSI0_D0_N
HDMI1_TX0_N — DSI0_D0_P
GND
HDMI1_CLK_P — DSI0_D1_N
HDMI1_CLK_N — DSI0_D1_P
GND
HDMI0_TX2_P — DSI0_C_N
HDMI0_TX2_N — DSI0_C_P
GND
HDMI0_TX1_P — DSI1_D0_N
HDMI0_TX1_N — DSI1_D0_P
GND
HDMI0_TX0_P — DSI1_D1_N
HDMI0_TX0_N — DSI1_D1_P
GND
HDMI0_CLK_P — DSI1_C_N
HDMI0_CLK_N — DSI1_C_P
GND
DSI1_D3_N — DSI1_D2_N
DSI1_D3_P — DSI1_D2_P
GND
HDMI0_SCL — HDMI0_SDA

GND

FAN controler

CM4_3V3
U2
EMC2301-1-ACZL-TR
SDAO — SDA — nALERT
SCLO — SCL — CLK
CM4_3V3 — VDD — TACH
GND — PWM
C1 100n
GND

36K 1% R1
CM4_5V

FAN connector
J1
Molex 470531000
GND

IIC address : 0101_111x
Also SMBUS alert IIC address : 0001_100x

SD-CARD

J3
Micro_SD_Card_Det
SD_PWR — DAT2
SD_DAT3 — DAT3/CD
SD_CMD — CMD
VDD
SD_CLK — CLK
VSS
SD_DAT0 — DAT0
SD_DAT1 — DAT1
DET_A
DET_B
SHIELD

C2 10u
GND CM4_3V3
R4 NC
Reserved
R5 NC

U3
RT9742GGJ5
SD_PWR — OUT   IN — CM4_3V3
GND — GND   EN
nFLG — SD_PWR_ON
GND

R8 12K 1%
GND

USB - OTG

U1
TPD2EUSB30
USB2_P D+ — D- USB2_N
GND

R2 2.2K 1% — USB2_P
USB2_N
USB_OTG_ID
R3 5.1K 1%
GND

J2
USB_OTG
VBUS
GND
Shield
ID
GND

USB-C (Power Only)

J4
USB4105-GF-A
CC1 — VBUS — CM4_5V
DP1 — VBUS_1 — CM4_5V
DN1 — GND_1
SBU1 — DP2
R6 5.1k — CC2 — DN2
GND — SBU2
R7 5.1k
SHELL_GND
SHELL_GND_1
SHELL_GND_2
SHELL_GND_3
C3 10u
GND

MISCELLANEOUS

J5
Conn_01x03
Global_EN
RUN_PG

J6
Conn_01x03
nRPIBOOT
R9 NC
CM4_3V3

PWR LED
D1
LED Red
R10 1k
GND

D2 Activity LED
LED Green
R12 1k
PI_nLED_Activity

U4
74LVC1G07SE-7
nPI_LED_PWR
GND

SD_VDD_Override — R11 NC — GND
EEPROM_nWP — R13 NC — GND
BT_nDisable — R16 NC — GND
WIFI_nDisable — R17 NC — GND

ETHERNET

U5
TRD0_P — TRD0+
TRD0_N — TRD0-
TRD1_P — TRD1+
TRD1_N — TRD1-
CT
TRD2_P — TRD2+
TRD2_N — TRD2-
TRD3_P — TRD3+
TRD3_N — TRD3-
C1 C2 C3 C4 C5 C6 C7 C8
C4 100n
GND

TRD0_TAP — VC1
TRD1_TAP — VC2
TRD2_TAP — VC3
TRD3_TAP — VC4
CM4_3V3
ETH_LEDG — LEDG_A
R14 470R — LEDG_K
ETH_LEDY — LEDY_A
R15 470R — LEDY_K
SHIELD
SHIELD
GND
MagJack-A70-112-331N126

POE Header
J7
THD-02-R
TR1_TAP — TR2_TAP
TR0_TAP — TR3_TAP