ANT-1774 pinout

Contents

Figure 1 shows a schematic layout of the processor side of the board with the connectors indicated. It is likely for most customers the most commonly used connectors will be the Power, Ethernet. The UART (or RS-232) and the Micro SD card holder may be required. Figure 2 and Figure 3 show a physical image of the board in the same orientation as that in Figure 1 to aid location of the connectors.

Figure 5 and Figure 6 show the PCB schematic layout, with the connector ID's indicated.

Table 2 and Table 3 provide the manufacturer and part number for the connectors. Table 2 is the most comment used connectors, and Table 3 is more complete list.

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Document info

Version	date	author	Comments
0.1	13-Nov-20	David M	Initial release
1.0	16-Nov-20	David M	Connector details added
1.1	21-Apr-22	David M	image of ANT-1774 with connections

Figure 1 : connectors location and pinout

UART	
J45	NET
1	3V3
2	TX
3	RX
4	GND

ANALOG OUT	
J45	NET
1	LINE IN_L
2	LINE IN_R
3	LINE_OUT
4	GND
5	CVBS-OUT

ETH	
J45	NET
1	TX_P
2	TX_N
3	RX_P
4	RX_N

POWER	
J45	NET
1	
2	5V
3	
4	
5	GND
6	

DEBUG

Micro SD card holder

USB-2

USB-1

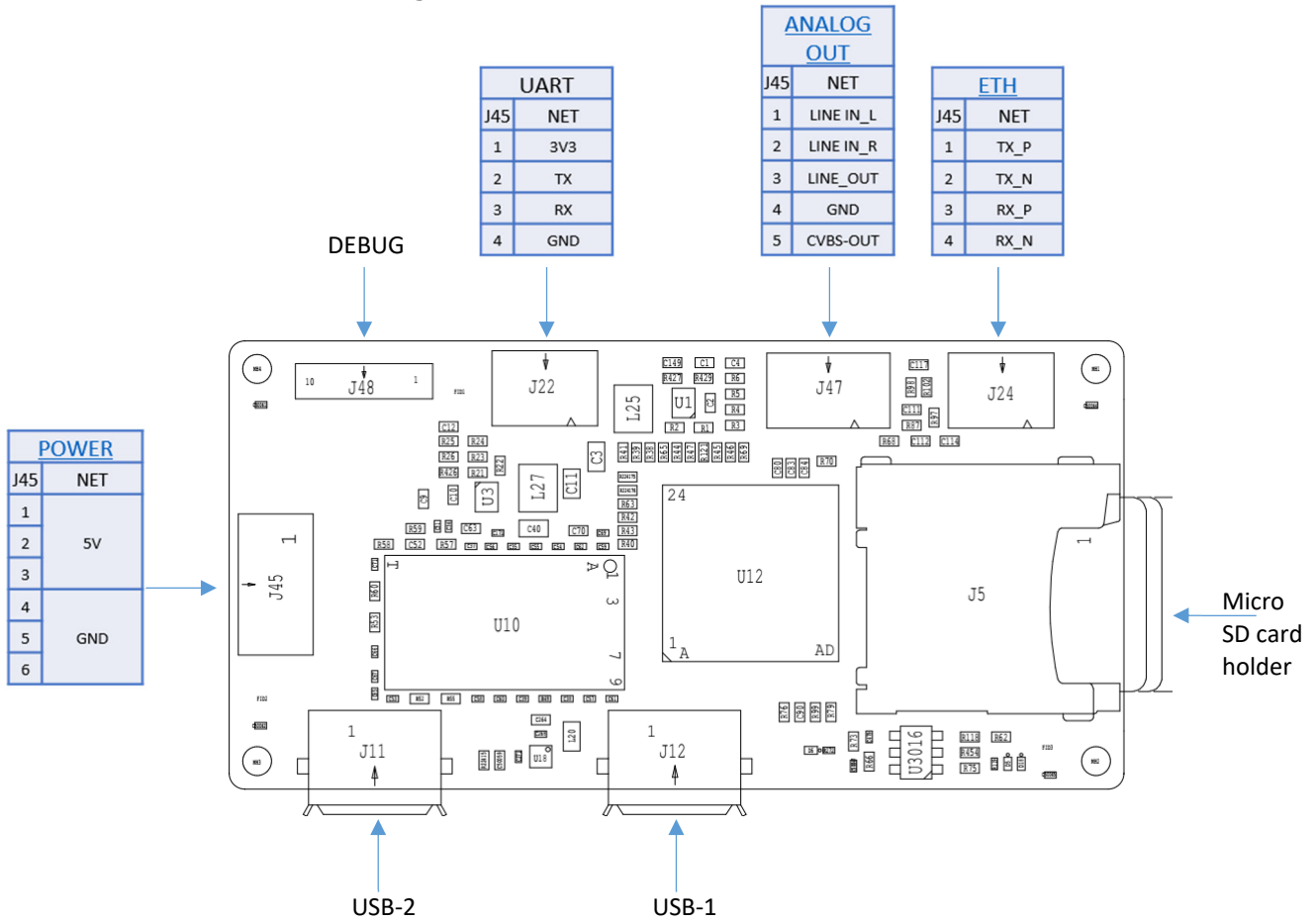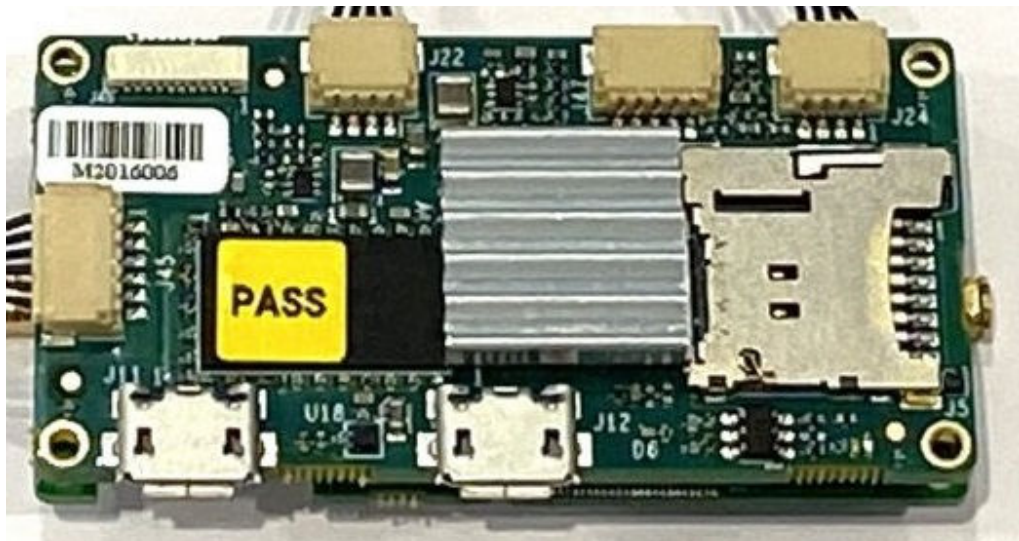Figure 2 : Image of physical board

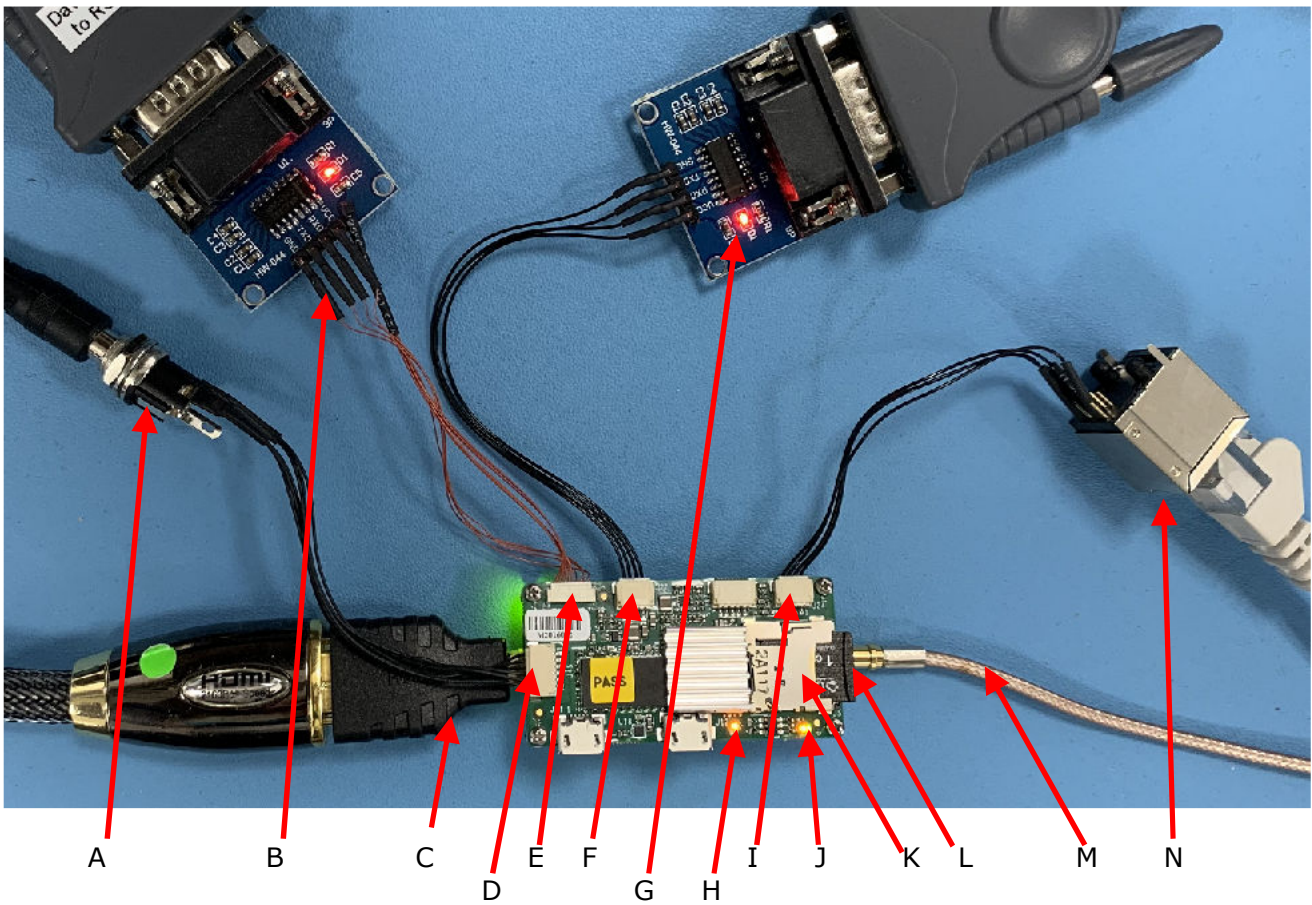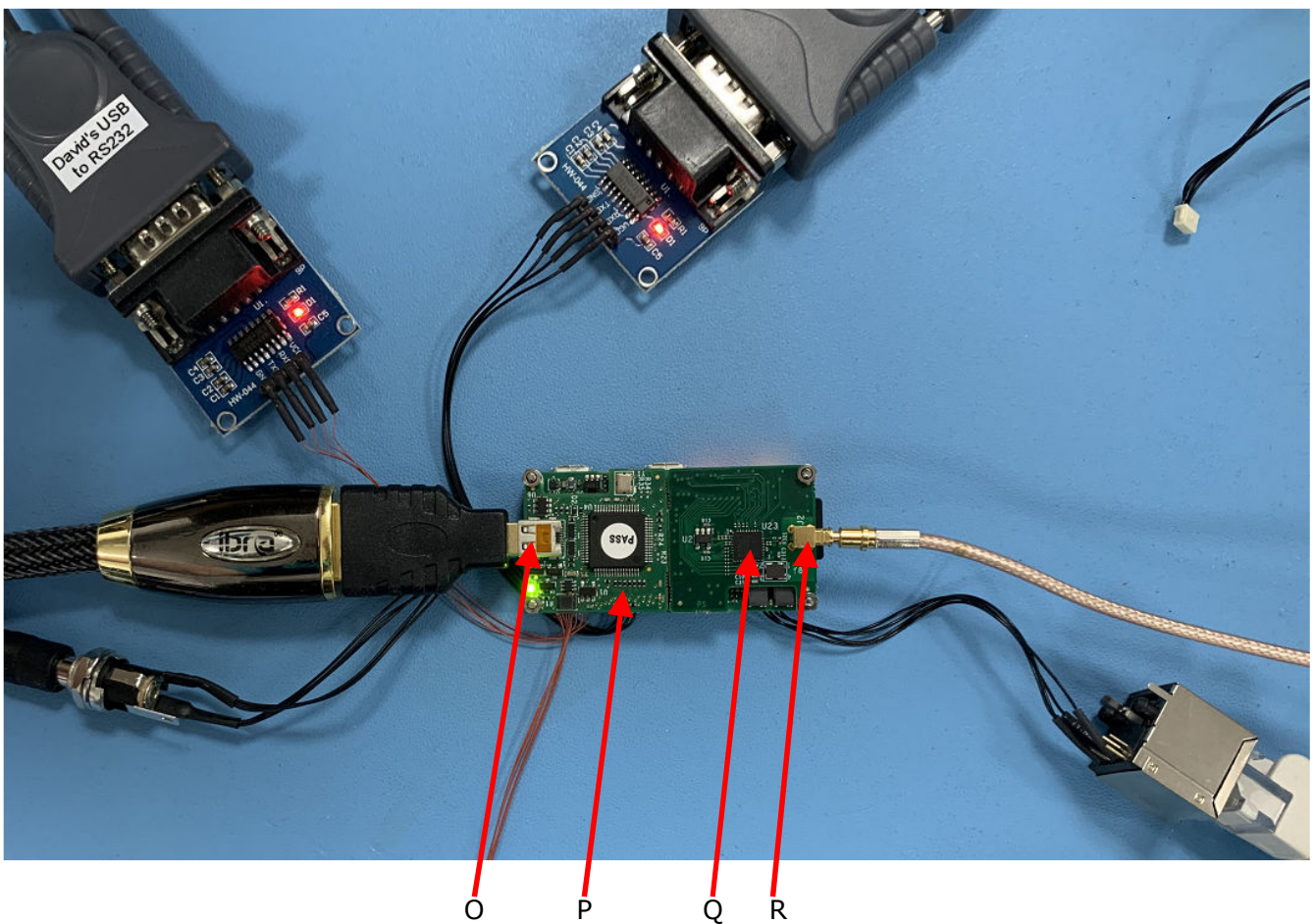*Figure 3 : SD card side of ANT-1774*

Figure 4 : Option card side of ANT-1774

The parts indicated in Figure 3 and Figure 4 are briefly Described in Table 1.

Table 1 : Part descriptions

Ident	Conn	Description
A		5V power supply, centre positive. This is 5V **only**
B		Debug board – not supplied
C		HDMI to Micro HDMI adaptor – not supplied, enables a standard HDMI cable to be used
D	J45	Board Power connecter
E	J48	Board Debug connector
F	J22	Serial / setup connector
G		Serial / setup board
H		Orange LED - ANT-1774 is booted
I	J24	Board Ethernet connector
J		Orange and Green LED's – Ethernet network activity indicators
K		Micro SD card holder – for firmware upgrades
L		Micro SD card
M		Co-ax cable for analogue camera input – available if analogue option board is used
N		Ethernet connector – connected to standard Ethernet cable
O		Micro HDMI connector on HDMI option board
P		HDMI option board – Channel "12" location
Q		Analogue option board – Channel "11" location
R		Analogue input connector on analogue option board

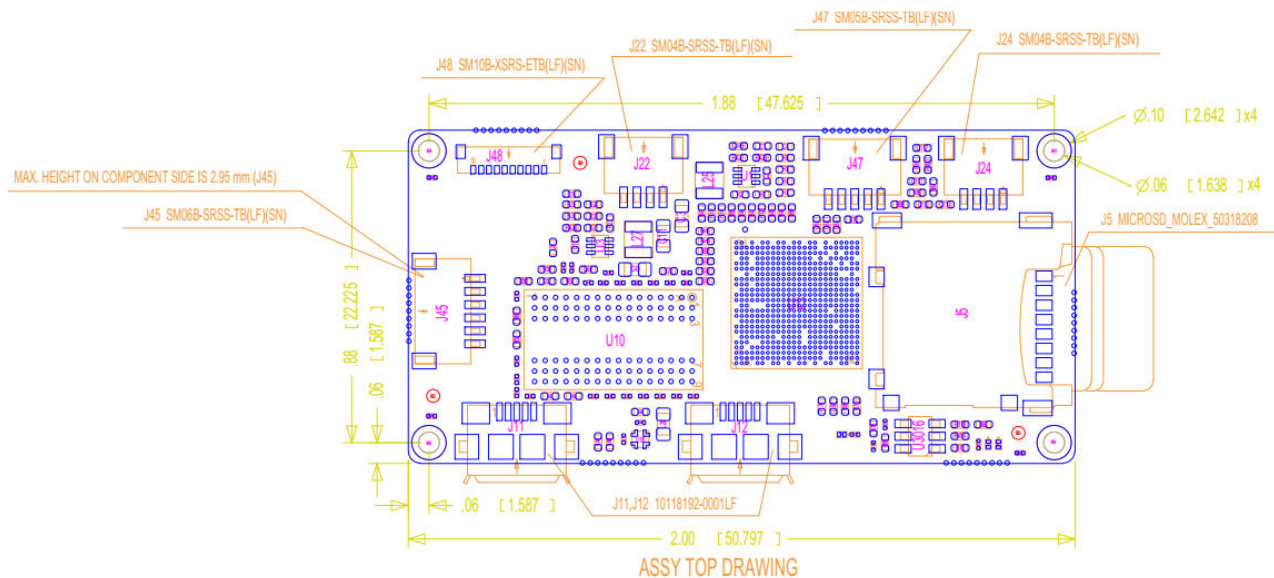*Figure 5 : Board layout - as viewed from the top (Micro SD card holder) side*

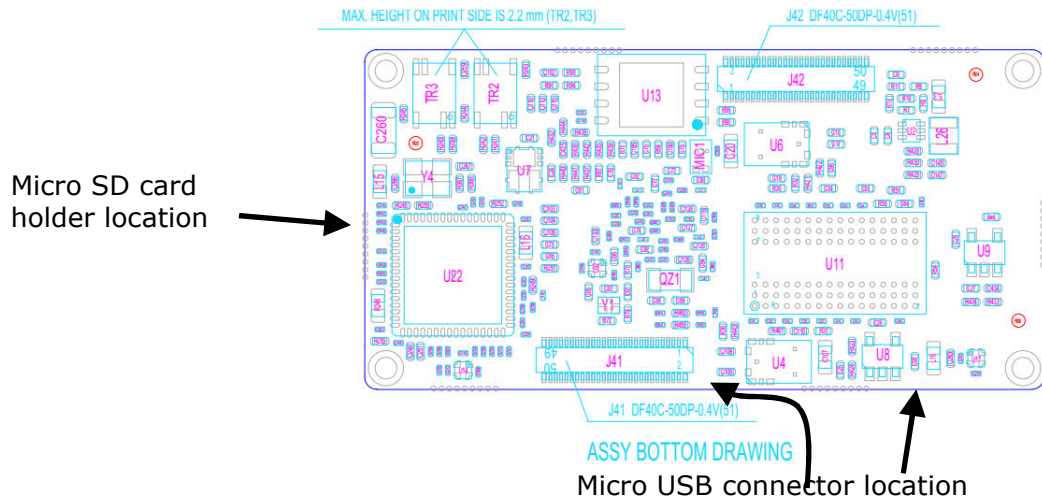*Figure 6 : Board layout - as viewed from the bottom*

Micro SD card
holder location

Micro USB connector location

Table 2 : Connector details

Function	Ref	Description	P/N	MFG	Mating
Power	J45	Conn header SH 6pos side 1mm tin	SM06B-SRSS-TB(LF)(SN)	JST	Housing: SHR-06V-S Contact: SSH-003T-P0.2-H
UART / RS-232	J22	Conn Header SH 4 pos side 1mm tin	SM04B-SRSS-TB(LF)(SN)	JST	Housing: SHR-04V-S Contact: SSH-003T-P0.2-H
Ethernet	J24	Conn Header SH 4 pos side 1mm tin	SM04B-SRSS-TB(LF)(SN)	JST	Housing: SHR-04V-S Contact: SSH-003T-P0.2-H
Analog in / out	J47	Conn header smd R/A 5pos 1mm	SM05B-SRSS-TB(LF)(SN)	JST sales America Inc	Housing: SHR-05V-S Contact: SSH-003T-P0.2-H

Table 3 : full list of connector details

REF	VALUE	DESCRIPTION	PN	MFG	MATING	DIGIKEY
J5	microSD	1.10mm (.043") Pitch microSD Memory Card Connector, Ultra Low-Profile, Push-Push Type, 1.45mm Anti-card fly-out	MICROSD_MOLEX_5031820853	molex	---	
J11,J12	Micro USB B	MICRO USB B CONNECTOR	10118192-0001LF	Amphenol FCI	STD	
J22,J24	SM04B-SRSS-TB	CONN HEADER SH 4POS SIDE 1MM TIN	SM04B-SRSS-TB(LF)(SN)	JST	HOUSING : SHR-04V-S CONTACT : SSH-003T-P0.2-H	https://www.digikey.co.il/product-detail/en/jst-sales-america-inc/A04SR04SR30K254B/455-3636-ND/9922186
J41,J42	DF40C-50DP-0.4V	CONN HDR 50POS 0.4MM SMD GOLD	DF40C-50DP-0.4V(51)	Hirose Electric Co Ltd	--	--
J45	SM06B-SRSS-TB	CONN HEADER SH 6POS SIDE 1MM TIN	SM06B-SRSS-TB(LF)(SN)	JST	HOUSING : SHR-06V-S CONTACT : SSH-003T-P0.2-H	https://www.digikey.co.il/product-detail/he/jst-sales-america-inc/A06SR06SR30K203A/455-3645-ND/9922195
J47	SM05B-SRSS-TB	CONN HEADER SMD R/A 5POS 1MM	SM05B-SRSS-TB(LF)(SN)	JST Sales America Inc.	HOUSING : SHR-05V-S CONTACT : SSH-003T-P0.2-H	https://www.digikey.co.il/product-detail/en/jst-sales-america-inc/A05SR05SR30K305A/455-3711-ND/6708489
J48	SM10B-XSRS-ETB	CONN HEADER SMD R/A 10POS 0.6MM	SM10B-XSRS-ETB(LF)(SN)	JST	DEBUG	https://www.digikey.co.il/product-detail/en/jst-sales-america-inc/A10XSR10XSR36R295A/455-3133-ND/6194788