

HARRIER ETHERNET CONNECTION BOARD

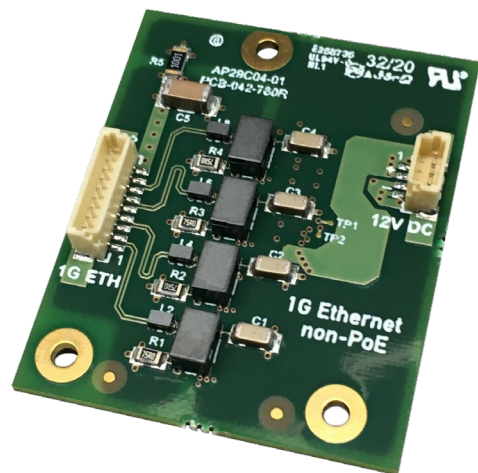
For Harrier IP Camera Interface Board



- Ethernet and power interface board for Harrier IP Camera
- 10/100/1G Ethernet support

FEATURES

- On board magnetics for 10/100/1G Ethernet support
- 24-way power and Ethernet connection to Harrier IP Camera Interface Board (SoC board)
- 8.25-12.25V power input.
- PoE version also available.



OVERVIEW

The **Harrier Ethernet Connection Board** (AS-CIB-IP-IFETH-001-A or AS-CIB-IP-IFPOE-001-A) is an Ethernet interface solution designed for use with Active Silicon's **Harrier IP Camera Interface Board** (SoC board, AS-CIB-IP-SOC-001-A or AS-CIB-IP-SOC-002-A). It carries Ethernet magnetics to provide a standard 1Gb IP/Ethernet output interface for the Harrier IP Camera Interface Board (SoC board). The Ethernet connection board connects to the SoC board via a 24-way FFC/FPC that also carries power to the SoC board, and the camera connected to it.

The Ethernet connection board can be mounted on the back of a Tamron MP1010M or stacked on top of the SoC board.



Figure 1. Harrier Ethernet Connection Board (IFETH) mounted on the back of a Tamron MP1010M camera with the Harrier IP Camera Interface Board (SoC board) on the side.

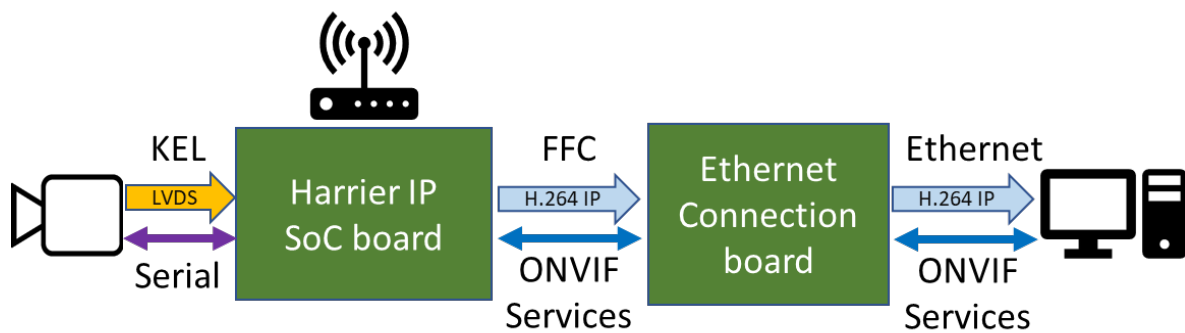
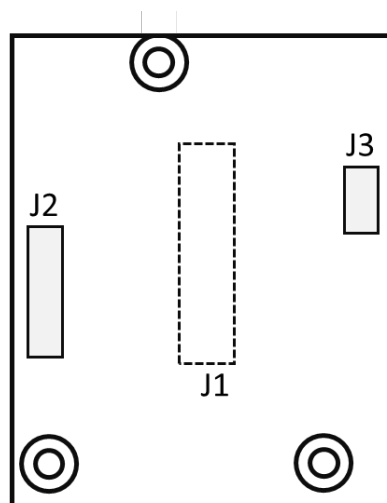


Figure 2. Harrier IP camera system block diagram (wireless/PoE features are optional)



Side B components shown in dashed outline

Figure 3. Harrier Ethernet Connection Board (IFETH) diagram.

CONNECTOR SPECIFICATION (Revision 1 board)

Harrier IP Camera Interface Board Connector: 24-way (J1)

The Ethernet connection board is fitted with a 24-way 0.5mm pitch FFC connector for connection to the Harrier IP Camera Interface Board (SoC board).

Connector type: Valcon FFC5-24-VSM-TR

Mating cable: 24-way 0.5mm pitch FFC

A suitable cable can be supplied with the boards (see ordering information).

Ethernet Connector: 9-way (J2)

The Ethernet connection board is fitted with a 9-way connector for connection to external devices.

Connector type: JST - BM09B-SRSS-TB(LF)(SN)

Mating cable: JST - SHR-09V-S-B connector

A suitable cable can be supplied with the evaluation kit (see ordering information).

PIN	SIGNAL	ETHERNET NAME	RJ45 PIN	RJ45 PAIR	CABLE COLOR	NOTES
1	0_P	A+	1	3	White Green	
2	0_N	A -	2	3	Green	
3	1_P	B+	3	2	White Orange	
4	1_N	B -	6	2	Orange	
5	2_P	C+	4	1	Blue	
6	2_N	C -	5	1	White Blue	
7	3_P	D+	7	4	White Brown	
8	3_N	D -	8	4	Brown	
9	Shield	-	-	-	Shield	1K to ground

AS-CIB-IP-IFETH-001-A – Power Connector: 4-way (J3)

The Ethernet connection board is fitted with a 4-way connector for connection to a power supply.

Connector type: JST - BM04B-SRSS-TB(LF)(SN)

Mating cable: JST - SHR-04V-S-B connector

A suitable cable can be supplied with the evaluation kit (see ordering information).

PIN	SIGNAL	LEVEL	NOTES
1	PWR	8.25V to 12.25V	
2	PWR	8.25V to 12.25V	
3	GND	0V	
4	GND	0V	

CONFORMANCE

Ethernet Compliant with IEEE802.11, GigE, POE, RTP, ONVIF Profile S, etc

Approvals: The **Harrier Ethernet Connection Board** has been designed to meet EMC and FCC requirements when housed in a suitable enclosure:

CE Compliant with the relevant EU directives as listed below.

RoHS Conforms to RoHS3, the European Union's Restriction on Use of Certain Hazardous Substances (RoHS) in Electrical and Electronic Equipment Directive 2015/863/EU.

EMC Compliant with EN 55022:2010 (class A) and EN 55024:2010 in accordance with EU Directive 2014/30/EU Electromagnetic Compatibility.

REACH Please contact Active Silicon for the latest formal REACH declaration (Registration, Evaluation, Authorization and Restriction of Chemicals, EC 1907/2006), the European Union's chemical substances regulatory framework for Substances of Very High Concern.

UL All printed circuit boards used in this product are manufactured by UL recognized manufacturers and have a flammability rating of 94-V0.

FCC Compliant with FCC Rules for Class A digital devices.

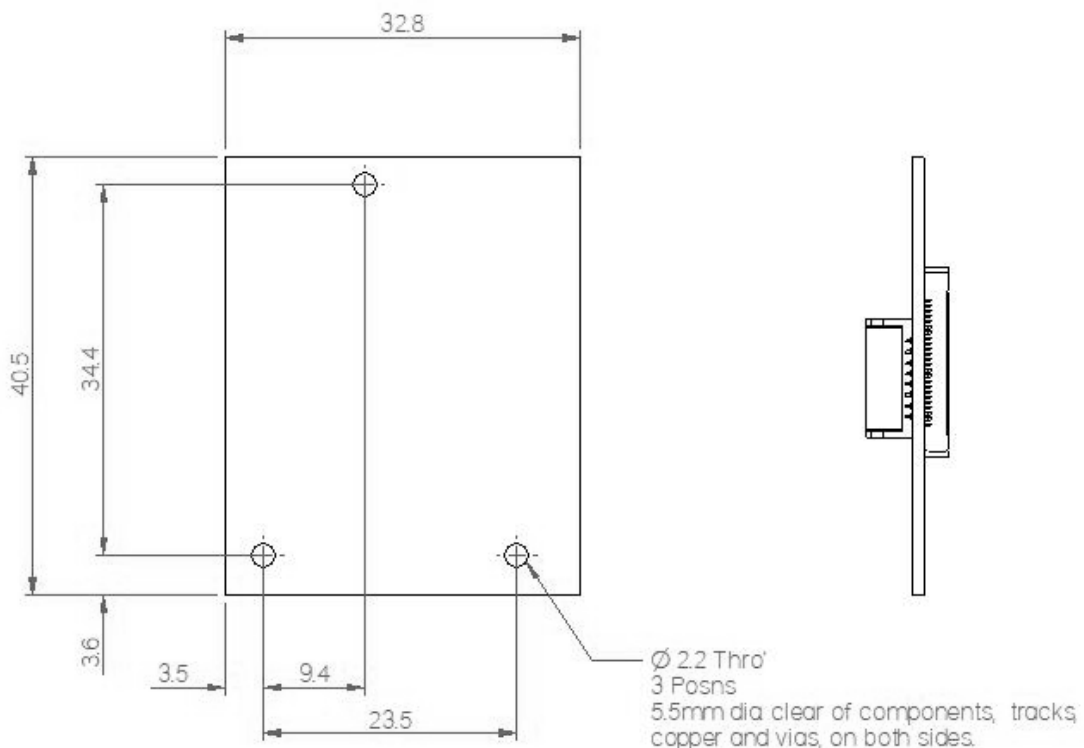


Figure 4. Mechanical overview of the Harrier Ethernet Connection Board; all dimensions in mm. (Note – side shown carries the JST connectors, FFC connector is on the reverse side)

PHYSICAL AND ENVIRONMENTAL DETAILS

<i>Dimensions:</i>	32.8mm x 40.5mm
<i>Weight:</i>	5.5g (connection board and SD card only, no cables)
<i>Power Supply:</i>	8.25V to 12.25V
<i>Power Consumption:</i>	~ 0.0W (Note: does not include camera or SoC board power)
<i>Storage Temperature:</i>	-20°C to +70°C
<i>Operating Temperature:</i>	0°C to +60°C (ambient environment)
<i>Relative Humidity:</i>	10% to 90% non-condensing (operating and storage)

ORDERING INFORMATION

PART NUMBER	DESCRIPTION
AS-CIB-IP-IFETH-001-A	Harrier Ethernet Connection Board.
AS-CIB-IP-IFPOE-001-A	Harrier Ethernet Connection Board (PoE version).
AS-CIB-IP-SOC-001-A	Harrier IP Camera Interface Board.
AS-CIB-IP-SOC-002-A	Harrier IP Camera Interface Board (with wireless option).
AS-CIB-IP-001-A	AS-CIB-IP-SOC-001-A, AS-CIB-IP-IFETH-001-A and FFC cable.
AS-CIB-IP-002-A	AS-CIB-IP-SOC-002-A, AS-CIB-IP-IFETH-001-A and FFC cable.
AS-CIB-IP-001-1010-A	AS-CIB-IP-SOC-001-A and AS-CIB-IP-IFETH-001-A supplied mounted on a Tamron MP1010M-VC camera (with connecting cables fitted).
AS-CIB-IP-002-1010-A	AS-CIB-IP-SOC-002-A and AS-CIB-IP-IFETH-001-A supplied mounted on a Tamron MP1010M-VC camera (with connecting cables fitted).
AS-CIB-IP-003-1010-A	AS-CIB-IP-SOC-001-A and AS-CIB-IP-IFPOE-001-A supplied mounted on a Tamron MP1010M-VC camera (with connecting cables fitted).
AS-CIB-IP-EVAL-A	Evaluation kit for Harrier IP (does not include boards).

More camera options and custom builds are available, please contact Active Silicon for more information.



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