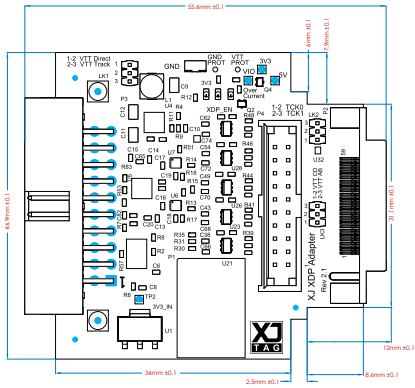
Technical Specifications



Absolute Maximum Ratings

DC input voltage	0 V to 15 V
Voltage on I/O pin (P3)	0 V to 6 V
Voltage on I/O pin (P2/P4)	0 V to 6 V
Temperature range	0 °C to +85 °C (operational)
Humidity	< 95% (non-condensing)
Output current (P2/P4)	±250 mA

Recommended Operating Conditions

DC input voltage	5 V to 15 V
Voltage on I/O pin (P3)	0 V to 3.3 V
Voltage on I/O pin (P2/P4)	0 V to VTT

JTAG Connector Pinouts

XJLink Connector (P3)

Power/EN	1	2	Ground
TARGET_PGD	3	4	Ground
XJL_TDI	5	6	Ground
XJL_TMS	7	8	Ground
XJL_TCK	9	10	Ground
XJL_RST_OUT#	11	12	Ground
XJL_TDO	13	14	Ground
XJL_nTRST	15	16	Ground
XJL_RST_IN#	17	18	Ground
NC	19	20	Ground

Green pins are uplink signals (DUT to XJLink) and red pins are downlink signals (XJLink to DUT).

DUT Connectors (P2/P4)

P2 follows the Intel XDP pinout convention. Unused inputs are not connected. Pinout of the alternative DUT connector P4:

VTT	1	2	Ground
XDP_TARG_PG	3	4	Ground
XDP_TDI	5	6	Ground
XDP_TMS	7	8	Ground
XDP_TCK	9	10	Ground
XDP_RST_OUT#	11	12	Ground
XDP_TDO	13	14	Ground
XDP_nTRST	15	16	Ground
XDP_RST_IN#	17	18	Ground
NC	19	20	Ground

DC Electrical Characteristics (@ +20 °C)

DUT Connector Output Signals

Output voltage set by DUT (VTT).
Output voltage range 0.6 V to 3.2 V
Output voltage tolerance: ±1% (0.6 V to 3.2 V)

Output Voltage	V_{OL} Max	V_{OH} Min	Load conditions
1.8	0.12 V	1.68 V	±25 mA
1.0	0.11 V	0.89 V	±25 mA
0.6	0.105 V	0.495 V	±25 mA

DUT Connector Input signals

Comparator threshold 0.5*VTT ± 50 mV (typ.)
Comparator hysteresis 50 mV (typ.)

TCK Frequency

All supported XJLink TCK frequencies up to 100 MHz.
The maximum frequency of reliable chain operation will be dependent on cable lengths and impedances, the devices in the chain and the layout and termination of the JTAG signals on the DUT.
Autoskew compensates for the delay introduced by the cable and the JTAG devices by up to 3 TCK periods.

XJLink Connector (P3)

Standard 0.1” pitch 20-way connector. Example supplier parts codes for mating IDC plug (20-way 0.05” pitch ribbon cable will be required): Digikey 2-215882-0-ND, Farnell 1200505, RS 426-3839.

XDP Connector (P2)

Intel XDP connector – Samtec BTH-030-01-L-D-EM2
Mates with Samtec BSH-030-01

Alternative DUT Connector (P3)

Samtec STMM-110-02-L-D (2 mm pitch 20-way)
Suitable IDC socket cable is Samtec TCSD-10-D

Power Supply

Maximum supply current 250 mA.
Power supply plug should have 2.1 mm inner diameter and 5.5 mm outer diameter. The pin is positive and the outer ground.
Example supplier part codes: Farnell 224923, Digikey CP3-1000-ND.

Visual Indication

3V3:	Internal supply voltage enabled
XDP_EN:	DUT connector outputs (P2/P4) are enabled
Over-current:	An over-current event has occurred.

Dimensions

Size:	56 mm x 47 mm x 15 mm (including connectors)