

Opto-JTAG – Introduction



The JTAG opto-isolation (Opto-JTAG) can be connected between development tools and MTW products to provide electrical isolation. This is essential when the development tools are not connected to the same ground as the application. It is also useful to protect the development tools from electrical spikes that often occur in some applications, such as motor control applications.

Features

1kV DC isolation

USB type B input

Supports 3.3V or 5V operation

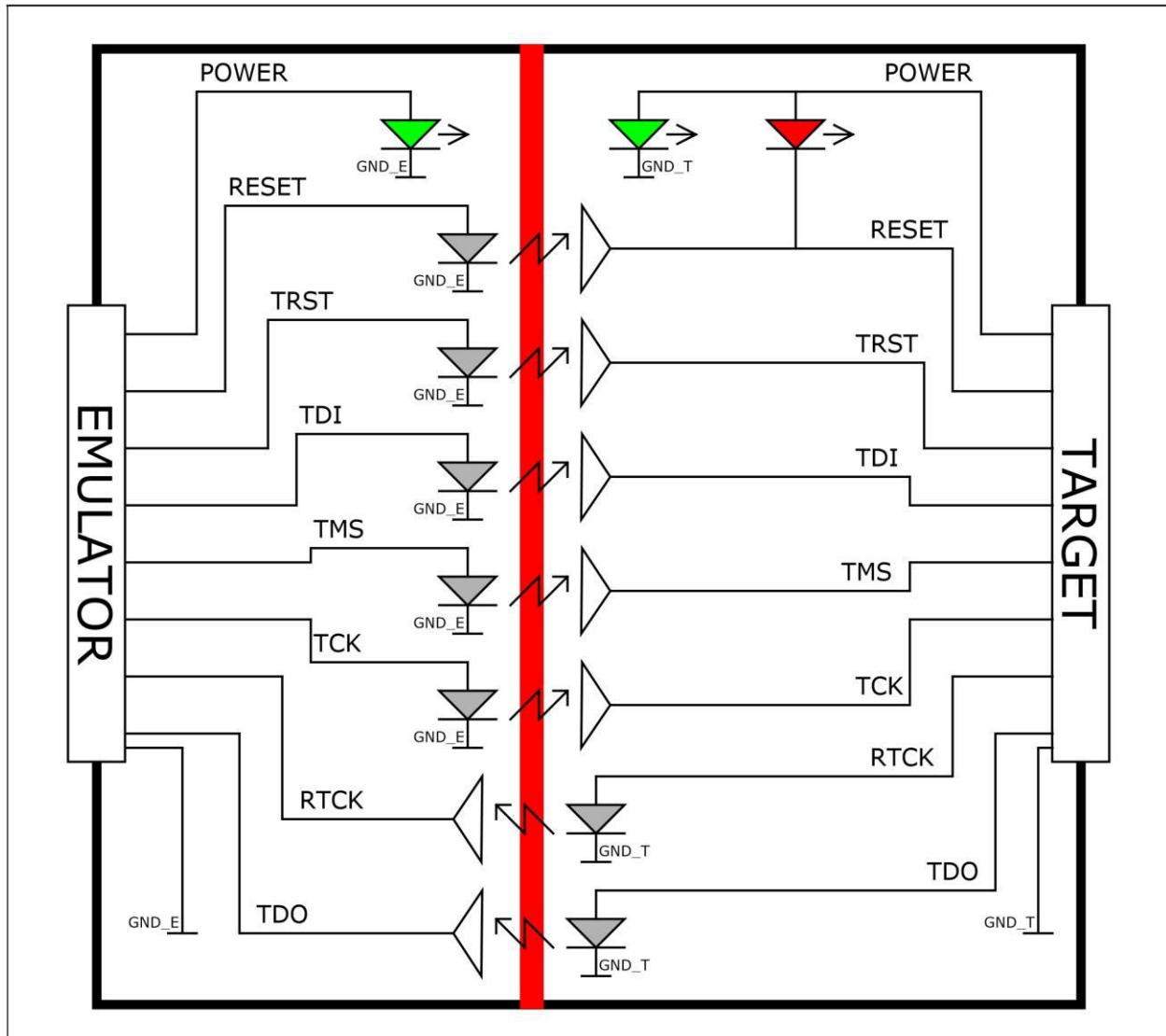
Powered from target application using DC/DC converter powered by 3.3V or 5V

JTAG standard 20-pin connection supporting TRST, TDI, TMS, TCK, RTCK, TDO, RESET signals 3.3V or 5V CMOS level compatibility

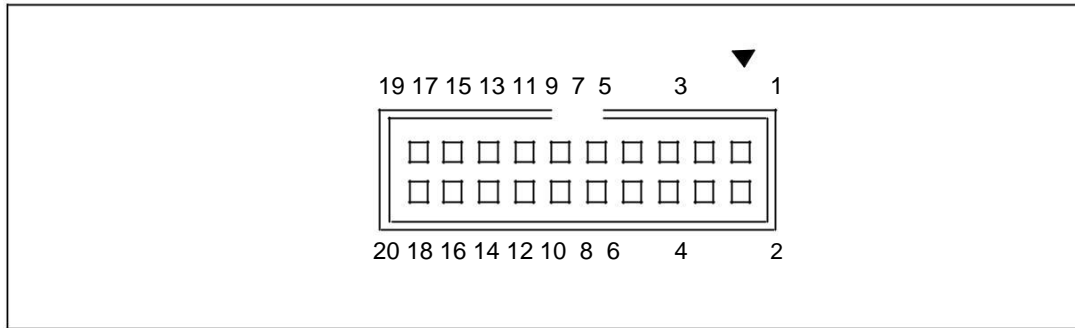
40nS maximum propagation delay for all unidirectional signals

Power consumption on target application power supply less than 200mA Software supported by OpenOCD (open source) debugger

Opto-JTAG – Functional Diagram



Opto-JTAG – Connector



Pin number	Description	Pin number	Description
1	3.3V/5V power	2	3.3V/5V power
3	TRST	4	GND
5	TDI	6	GND
7	TMS	8	GND
9	TCK	10	GND
11	RTCK	12	GND
13	TDO	14	GND
15	RESET#	16	GND
17	DBGRRQ	18	GND
19	DBGACK	20	GND