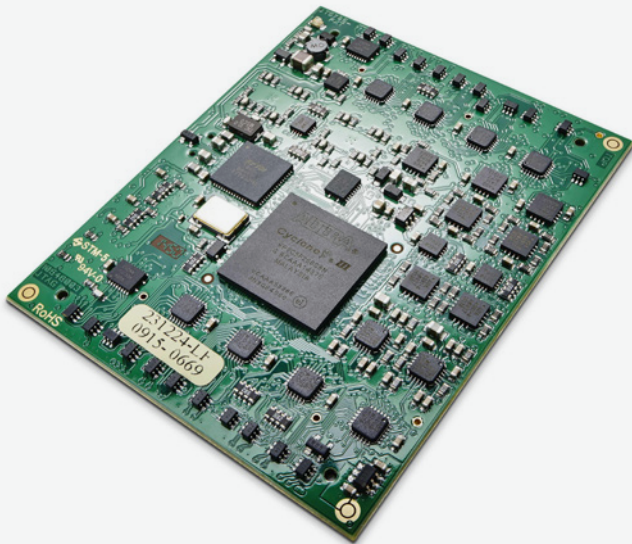


JT 5112/FXT Embedded MIOS for JTAG-based ATE

Mixed-signal IO System (Digital IO, Analog IO & Frequency Measure)



Key features

- Build your own multi-function ATE system from readily available off-the-shelf modules
- JT 5112/FXT measurement & IO module offers 64 mixed signal I/O channels
- Embed one or more modules into an adapter for seamless integration into the fixture of your choice, for example ATX, ECT (Xcerra) D&D Mechatronic, Ingun, MG-Products and many others.
- Compatible with all JTAG Technologies TAP controllers
- Analog functions controlled by JFTMIOS library. JFT=JTAG Functional Test

The JT 5112/FXT is a multi-function I/O instrument intended for embedded fixture applications - mini ATE. It features 64 mixed signal I/O channels plus an option for custom programmable functions. This compact unit was designed for easy integration into test systems making it ideal for building low-cost structural/functional production testers.

The I/O channels allow measurement and stimulus of both digital and analog signals, simplifying testing of signals through connectors and/or test points of the Unit Under Test (UUT). The test channels can be either incorporated into a JTAG/Boundary-scan test for extended interconnect testing mixed signal cluster testing (eg ADCs or DACs) or simply used as independent test resources. JT 5112/FXT users can enjoy increased test coverage for both the digital and the analog parts of a UUT.

From the total of 64 I/O channels per tester engine, up to eight can be selected as analog channels that can measure or source voltages up to 30 Volts (unipolar) or ± 15 Volts (bipolar). The remaining 56 channels are digital only. Of these digital channels 16 also have a frequency counter, 1 can be used as a programmable clock generator and 1 more can be used for pulse width measurements. For higher channel counts multiple JT 5112/FXT modules can be combined.

Custom Functions

The JT 5112 can be programmed with SCIL functions for the JTAG Technologies catalog. These include BDM and SWD interfacing among others.

Connections and adapters

Connection to the JT 5112/FXT are provided by two 68-way 0.05" (1.27mm) ERNI DIL connectors. All the TAP in, TAP out, power and IO resources are provided through these connectors and full pin-out is provided in the manual. However 'break-out' adapters are also available to allow easy connection to 0.1" IDC-style headers or ATE-style Ingun 'Pylon' connectors.

JT 2702/BO - standard IDC header breakout board

JT 2702/IB - ATE-style break out board featuring 120 pins (12 x 10 matrix) - 'Pylon' style.

JT 2702/SM - this switch matrix module works with either of the two breakout boards (above) allowing the various resources of the JT5112 to be directed to any pin.

Brief Capabilities

Digital I/O:	1.05 to 3.6 V; 5 V tolerant
Analog I/O:	0 to 30 V or -15 to +15 V
Frequency Measure:	up to 200MHz
Pulse Generator:	up to 62.5 MHz

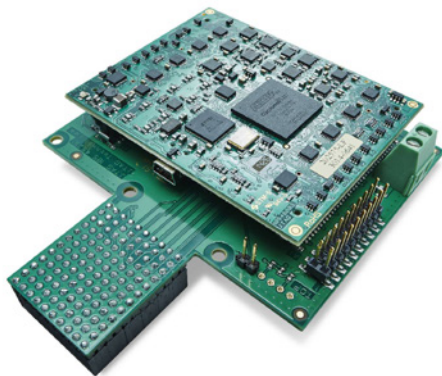
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Specifications table

ELECTRICAL		Over Voltage Protection	
Power		Isolation threshold	VCC+0.6V
External	12V, 0.5A	Isolation voltage protection	-0.5V to +15 V
TAP Connections		Overshoot rejection	Overshoots less than 400 ns will not result in OVP isolation
TAP-IN	Max 40MHz TCK input (single unit)	Pull-up resistor	20-50K Ohm
TAP-OUT	auto-detected	Other	
Connection types to carrier/fixture		Frequency counter	0 to 200 MHz
2 x 68-way 1.27mm ERNIDIL	66mm centres on JT 5112/FXT	Clock generator	0 to 62.5 MHz; step 0.0582Hz
		Pulse width measurement	4 to 8192 ns; accuracy 1 ns
ENVIRONMENTAL			
Temperature			
Digital I/O (channels 1-56)		Rated range of use	0° C to 60° C
Voltage range	1.05V to 3.6V	Storage and transport	-5° C to 60° C
Output current	max ±8 mA @ 3.3V	Relative Humidity	
Analog I/O (channels 57-64)		Operating	15% to 90% non-condensing
Voltage range	0V to 30V or -15V to +15V @ 5mA max	Storage and transport	5% to 95% non-condensing
Resolution	16 bit (0.5mV)	Vibration	
Relative fault	±(0.7% of full scale)	Swept sine resonance search	5-55Hz, 2g (ms), 15 mins per axis, 10 mins resonance dwell
Input impedance	1 MOhm parallel with 100 pF	Dimensions	
Output impedance	100 Ohm .	Weight	30 grams
Sample rate	15 kS/s	Size (W x D x H)	75mm x 60mm x 10mm
Slew rate	0.5 V/µs		

Carrier option



JT 5112/FXT plus JT 2702/IB



JT 5112/FXT plus JT 2702/BO

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