

# JT 5111/RMlc Digital I/O Scan (DIOS) module

Compact 64 channel module with OVP for the JT 57xx/RMlc 19" rack-mount chassis.



- ✓ 15 MHz TCK max
- ✓ Daisy chaining possible
- ✓ 64 digital I/O Channels with OVP
- ✓ Rack Mount

## Introduction

A rack-mountable boundary-scan digital I/O (DIOS) module. The JT 5111 DIOS module series offers 64 fully protected I/O channels (16 with frequency measure) in a space-saving design. A maximum TCK input frequency of 15 MHz allows rapid test execution and all signal voltage levels and input thresholds are fully programmable. Enhance your JTAG/boundary-scan testing regime by utilising the IO features to measure clock frequencies, toggle a pin with the built in clock generator and improve coverage to test points and connectors.

## Versatility

The JT 5111/RMlc variant has been developed to fit into a single slot of the low-profile 1U high JT 57xx/RMlc rack-mount-instrument system developed for industrialised ATE applications. Up to four JT 5111/RMlc's can therefore be housed in a single rack-mount chassis or mixed with other module types.

From the total of 64 channels, 16 also have a frequency counter capability, one can be used as a programmable clock generator and one can also be used for pulse width measurements.

In addition to their usage as boundary-scan test and measurement signals, the I/O channels can also be controlled via application specific digital functions that can be programmed in the re-configurable FPGA of the JT 5111.

## High Voltage Protection

While the built-in protection covers each channel for under/over voltages between  $-0.5V$  to  $+15V$  an optional high voltage protection module (part ref. JT 2136/D) can be added per block of 16 channels to protect the inputs from voltages between  $-55V$  and  $+55V$ .

Alternative fixture-oriented models are also available: JT 5111/IB and JT 5111/BO as well as a desktop model JT 5111.

Electrical			
TAP Signals		Additional functions	
TCK max	15 MHz	Frequency Counter (16 channels)	0 to 200 MHz
Voltage levels	3.3 V (5 V tolerant)	Clock Generator (1 channel)	0 to 62.5 MHz, step 0.0582 Hz
		Pulse Width Measurement (1 channel)	4 - 8192 ns, accuracy 4 ns, resolution 1 ns
I/O channels		Over Voltage Protection	
Number of channels	64	Activation threshold	Vcc + 0.6 V
Voltage levels	1.05 V - 3.6 V (5 V tolerant)	Isolation Voltage Protection	-0.5 V to +15 V
Output current	max +/- 8mA @ 3.3 V	Overshoot rejection	No OVP isolation if overshoot < 400 ns
		Pull-up resistor	20-50 kOhm
Mechanical			
I/O Connectors	4 x 20-pin IDC	Size	1 x RMIc chassis slot
TAP Connectors (TAP_IN, TAP_OUT)	2 x 10-pin IDC		

## Global Representation

Want to know more about our solutions and products?  
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