Data Sheet

SFX/VPC-TPC128

Art.-No.: RPD-721

Key Facts:

- Test extension hardware for test and verification of up to 128 I/O channels
- Based on 8 CION-LX devices, which can both drive and measure digital signals and also provide mixed-signal support
- Each of the 128 test channels can be programmed independently (input, output, bi-directional and tri-state)

VPC Product Line Description:

The SFX/VPC-TPC128 (Test Pattern Card) is Boundary Scan test extension hardware for test and verification of up to 128 I/O channels. It has been designed specifically for integration into RAPIDO test systems. The card is based on 8 CION-LX devices, which can both drive and measure digital signals and also provide mixed-signal support. These integrated CION-LX devices can be used as Arbitrary Waveform Generator, Signal Recorder, Event Detector and Frequency Meter.

Synchronization of several SFX/VPC-TPC128 cards can insure an optimum test and verification process, even for a high number of I/O channels (e.g. when testing UUTs in parallel). The SFX/VPC-TPC128 is controlled by a standard Gigabit Ethernet Interface, enabling easy integration into other test systems. Each of the 128 test channels can be programmed independently (input, output, bi-directional and tri-state). The SFX/VPC-TPC128 is a fully integrated extension to the Embedded JTAG Solutions software SYSTEM CASCON.

Product Description:

With the SFX/VPC-TPC128, the test resources of the CION-LX devices can be ideally used for execution of mixed-signal tests. The card can be integrated into RAPIDO test systems as well as other customized test systems. Consequently, the card can be used independently of the Embedded JTAG Solutions software SYSTEM CASCON.

Through the CION-LX devices, both digital and analogue signal processing can be provided (for signals between 0,9V and 3,6V).

Technical Parameters:

Power supply		5V DC
Dimensions		210mm x 142mm x 15mm (incl. VPC connector)
Cooling		Passive (no fan)
Control Interfaces		GBit LAN (connector RJ-45), 10 pin synchronization interface
Max. number of I/O channels		128 (16 groups with 8 I/O signals)
Number of I/O groups (same I/O voltage)		16
I/O voltage (each group can have different voltage)	Digital I/O	0,9V – 3,6V programmable via CASCON Software (or via API access)
UUT Connector		VPC connector 192 pins (510150152)
I/O Driver strength	Digital I/O	6mA@0,9V; 12mA@1,8V; 16mA@2,5V; 24mA@3,3V
Additional resources	Per digital I/O	Switchable driver strength 100%, 75%, 50%, 25%
		Switchable 10k pull down resistor
		Switchable 10k pull up resistor
		Edge detector
Additional resources per CION-LX IC (8 are assembled on the SFX/VPC-TPC128)		One 12-bit ADC with different operating modes and 1k RAM, maximum sample rate of 400kS, via multiplexer available on all digital I/O
		One 10-bit DAC with different operating modes and 1k RAM, maximum sample rate of 1MS, via multiplexer available on all digital I/O
		One frequency measurement unit with different operating modes, up to 100MHz, via multiplexer available on all I/O
Additional resources for UUT or user (reserved for future use)		4 I2C channels 8 LVTTL (3,3V) PIO channels API access without CASCON to support 3rd party software

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