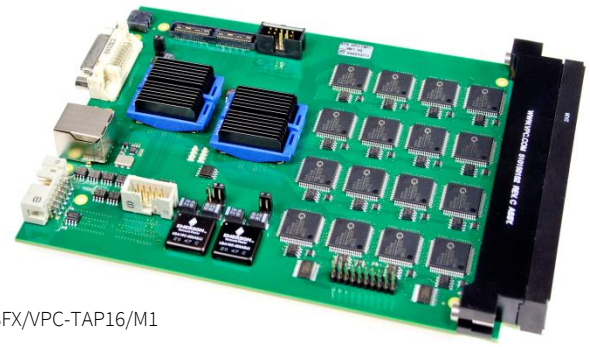
Datasheet

SFX/VPC-TAP16/M1

VPC-Solution: SCANFLEX® TAP Transceiver

Art.-No.: RPD-700



SFX/VPC-TAP16/M1

Key Facts:

- SCANFLEX transceiver with 16 TAP-connections
- Compact solution for test system integration
- Virginia Panel (VPC) interface connector
- Extended support for programming and debug interfaces (TIC020 features)
- Extendable with other VPC-solutions (I/O, power management etc.)

VPC Product Line Description:

In general the Gang Test Module Kit belongs to the SCANFLEX product line and provides a complete solution for the parallel test or programming of up to 16 units with one system controller. It consists of three interconnected module types – a TAP transceiver (TAP16), a multipurpose parallel I/O unit (MPP) and a power management unit (PWR16). For easy system integration, all modules feature an on-board Mass Interconnect Interface from Virginia Panel and are controlled by a central controller. With multiple SYSTEM CASCON™ setups hardware is scalable so that production systems can be configured to N sites.

The Gang Test Module Kit supports all technologies for Embedded System Access (ESA). In addition to boundary scan, these are Processor Emulation and Chip embedded Instruments. These methods enable the execution of design validations, hardware debugging, production tests such as dynamic and functional tests as well as programming of MCU, Flash and PLD without probe and nail utilization (non-intrusive).

The Gang Test Module Kit was specifically developed for so called Gang applications. This method means the parallel test or programming of several units. The new kits help users to configure their individual Gang testers, consequently to significantly increase production throughput and benefit from all ESA technology advantages in mass production. Various test and programming strategies based on the ESA platform SYSTEM CASCON can be freely combined.

Particularly advantageous is the on-board Mass Interconnect Interface from VPC, because it represents a standardized test fixture solution.

Product Description:

The SFX/VPC-TAP16/M1 enables functional bus interfaces such as JTAG (IEEE 1149.1), BDM, SWD, SBW, PIC1x for debug, test and programming for up to 16 sites in parallel mode. Each site can be individually programmed in many parameters (protocols, voltages, delays …).

The TAP transceiver is part of SCANFLEX line which is software controlled by SYSTEM CASCON and can be freely combined with other SCANFLEX products.

Technical Parameters:

Functional	
Purposes	Debug, test, programming
Supported interfaces	JTAG (IEEE 1149.1), BDM, SWD, SBW, PIC1x
Combinations with VPC-series	MPP, PWR
Product features	Selftest, ADYCS (Active Delay Compensation), Unstress feature, Hotswap
Configuration	
TAPs/TICs	16 (8*Master/8*Shadow) with embedded TIC020 at each TAP
Possible UUT x TAP configurations	16x1, 8x2, 4x3, 4x4, 2x5, 2x6, 2x7, 2x8
impossible UUT x TAP configurations	5x3, 3x5, 3x6
Electrical	
Operating voltage/current	5.0V / 3A
Number of digital I/Os per TAP	Up to 7 (e.g. when used as JTAG: TDO, TCK, TMS, TRST, AUX1, AUX2, AUX3)
Number of digital Inputs per TAP	1 (e.g. when used as JTAG: TDI)
Signal voltage level on digital I/O per TAP	1.8V – 4.5V (software programmable)
Signal voltage level on digital Input per TAP	Max. 5.0V, 0V – 3V input threshold (software programmable)
Digital I/O driver strength	6mA @ 0.9V; 12mA @ 1.8V; 16mA @ 2.5V; 24mA @ 3.3V
Digital I/O Inline resistor	22R
Input pulldown resistor at TDI	1k, open (software adjustable)
Max. frequency	70 MHz TCK
Mechanical	
Power	2-pin male connector of type 43650-0200 from Molex or Screw jack of type CTB3051/2BK from CAMDEN
Digital I/O and Input interface	192-pin VPC connector, type 510150152
MPP interface	Samtec connector for connection to SFX/VPC-MPP/M1 module
SFX/LS Interface	RJ45 connector for connection to SFX Carrier modules
SFX/LS Power Interface	14-pin male connector, SEK18-14 RA in 2.54mm pitch for connection to SFX/VPC-PWR16/Mx modules
Module dimensions (L x W x H):	210mm x 142mm x 20mm (8.27” x 5.59” x 0.79”)
Software	
Min. CASCON release	4.6.3
Min. HW driver version	3.55
Min. controller version	2.55
Environment	
Storage temperature	-10 - 80°C
Operating temperature	0 - 35°C
Relative storage humidity, not condensing	10 - 90%
Relative operating humidity, not condensing	20 - 85%

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