SCALEXIO

I/O Overview

1) Extension for using extended signal analysis. Additional channels are required. 2) The number of function instances is limited for selected functions. 3) Several channel types are required for this function.

I/O Function — In columns: Current In · Triggered Current In · Voltage In · Multi Bit In · Trigger In · Digital Pulse Capture · PWM/PFM In · Current Signal Capture · Voltage Signal Capture · Digital Incremental Encoder In · Sine Encoder In · Hall Encoder In · Resolver In · EnDat Master · SSI Master · Injection/Ignition Current In · Extension[1] · Injection/Ignition Voltage In · Extension[1] · SENT In

I/O Function — Out columns: Current Sink · Voltage Out · Multi Bit Out · Digital Pulse Out · Potentiometer Out · Resistance Out · PWM/PFM Out · Multi-Channel PWM Out · Block Commutated PWM Out · Wavetable Current Sink · Wavetable Digital Out · Wavetable Voltage Out · Angular Wavetable Digital Out · Angular Wavetable Voltage Out · Digital Incremental Encoder Out · Wheelspeed Out · Waveform Current Sink · Waveform Voltage Out · Waveform Digital Out · Crank/Cam Current Sink · Crank/Cam Digital Out · Crank/Cam Voltage Out · Knock Signal Out · Lambda DCR[3] · Lambda NCCR[3] · SENT Out

Board	Channel type	FIU integrated	No. of channels
DS6101 Multi-I/O Board	Analog In 4	No	10
	Analog In 5		1
	Digital In 3		12
	Flexible In 3		10
	Analog Out 6		8
	Analog Out 7		1
	Analog Out 8		3
	Analog Out 9		4
	Digital Out 3		14
	Resistance Out 2		6
DS6121 Multi-I/O Board	Analog In 16	No	6
	Resolver In 2		1
	Flexible In/Out 1		6
	Digital In/Out 9		4
	Digital Out 8		12
DS6201 Digital I/O Board	Digital In/Out 3	No	96
DS6202 Digital I/O Board[2]	Digital In/Out 5	No	32
DS6221 A/D Board	Analog In 6	No	16
	Trigger In 1		8
DS6241 D/A Board	Analog Out 10	No	20
	Trigger In 2		4
DS2655 FPGA Base Board / DS6601 FPGA Base Board / DS6602 FPGA Base Board		No	DS2655M1 I/O Module: 5 A/D channels, 5 D/A channels, 10 digital I/O channels; DS2655M2 I/O Module: 32 digital I/O channels (RS232 or RS485 communication); DS6651 Multi-I/O Module: 6 A/D channels, 6 D/A channels, 16 digital I/O channels
DS2601 Signal Measurement Board	Flexible In 1	Yes	10
DS2621 Signal Generation Board	Flexible Out 1	Yes	10
DS2642 FIU & Power Switch Board			10 (Power Switch, Central FIU)
DS2680 I/O Unit	Analog In 1	Yes	20
	Analog In 2		2
	Digital In 1		30
	Flexible In 2		18
	Analog Out 1		15
	Analog Out 2		2
	Analog Out 3		7
	Analog Out 4		8
	Digital Out 1		28
	Resistance Out 1		12
			6 (Power Switch, Central FIU)
DS2690 Digital I/O Board	Digital In 2	Yes	10
	Digital Out 2		10
	Digital In/Out 1		10

Bus Overview

Buses and Networks columns: CAN/CAN FD · LIN · FlexRay · RS-232 · RS-422 · RS-485 · Standard Ethernet (Physical Layer) · Automotive Ethernet (Physical Layer) · UDP · TCP · SOME/IP

Bus Board	Channel type	FIU integrated	No. of channels
SCALEXIO Processing Unit	Ethernet Adapter 1	No	1
	UART 5		1
DS6001 Processor Board	Ethernet Adapter 1	No	1
	UART 6		1
DS6301 CAN/LIN Board	CAN 2	No	4
	LIN 2		4
DS6311 FlexRay Board	FlexRay 2	No	4
DS6321 UART Board	UART 1	No	4
DS6331-PE Ethernet Board	Ethernet Adapter 1	No	4
DS6333-CS Automotive Ethernet Board	Ethernet Adapter 2	No	4
DS6333-PE Automotive Ethernet Board	Ethernet Adapter 2	No	4
DS6334-PE Ethernet Board	Ethernet Adapter 1	No	4
DS6335-CS Ethernet Board	Ethernet Adapter 2	No	4
SCALEXIO Processing Unit	Ethernet Adapter 1	No	1
DS6336-CS Ethernet Board	Ethernet Adapter 1	No	2
DS6336-PE Ethernet Board	Ethernet Adapter 1	No	2
DS6341 CAN Board	CAN 2	No	4
DS6342 CAN Board	CAN 2	No	8
DS6351 LIN Board	LIN 2	No	8
DS2671 Bus Board	Bus 1	Yes	4
DS2672 Bus Module (Add-on for DS2680)	CAN 1	Yes	2
	LIN 1		2
	FlexRay 1		2

SCALEXIO Aerospace Solutions

- SCALEXIO Interface Solution for ARINC 429
- SCALEXIO Interface Solution for ARINC 664 and AFDX® (AFDX® is a registered trademark of AIRBUS)
- SCALEXIO Interface Solution for MIL-STD-1553

Additional SCALEXIO Solutions

- SCALEXIO Fieldbus Solution for PROFIBUS and EtherCAT
- SCALEXIO Serial Interface Solution for Serial Peripheral Interface (SPI) and Inter-Integrated Circuit (I^2C)
- SCALEXIO EMH Solution for Electric Drives Simulation
- SCALEXIO TWINsync Solution
- PSI5 Master/Slave Solution

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