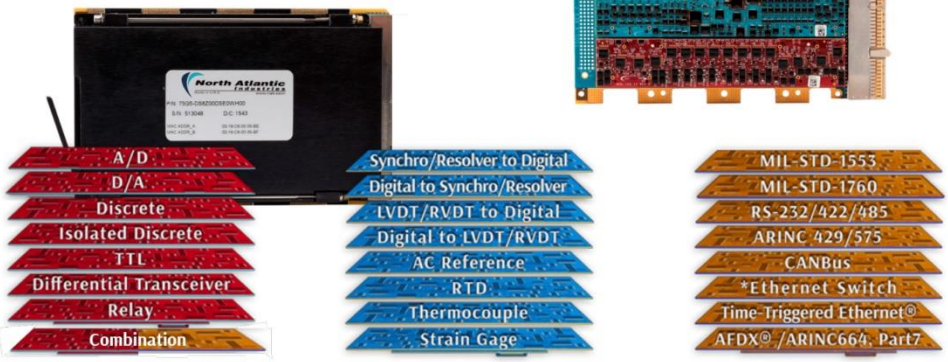
North Atlantic Industries

シンクロ/レゾルバ, LVDT/RVDT,
搭載用電源, Embedded Software Panel

Meet design goals RAPIDLY:
using modules vs. custom engineering



計測器

角度表示器　8810A

シミュレータ　5330A

位相角電圧計　2250A

NAI社製各種計測器の

40種類以上あるモジュールの中から必要なI/Oを選択し、VME、cPCI、VMXボードに搭載してシステムアップが可能です
センサ近くにシステムを設置してリモートでコントローラからイーサネット経由で通信制御が可能です
今回は下記VPX製品のほか、高密度実装を実現するCOSA システム、計測器を展示いたします

3U VPX
搭載対応電源(VPX57)
+28VDC / +270VDC 対応

3U VPX(68G5)
マルチファンクションI/Oボード
40種類以上のI/Oモジュールから
最大3枚を搭載可能です

Analog & Digital I/O

Function	Module	Description
A/D Converter	AD1	12 Ch. ±1.25 to ±10.0 VDC FSR; 256 kHz (max), 24-bit Sigma-Delta
	AD2	12 Ch. ±12.5 to ±100.0 VDC FSR; 256 kHz (max), 24-bit Sigma-Delta
	AD3	12 Ch. ±25 mA FSR; 24-bit 256 kHz (max), Sigma-Delta
	AD4	16 Ch. ±1.25 to ±10.0 VDC FSR or ±25 mA; 16-bit SAR, 8 Ch. x 2 A/D multiplexed, 400 kHZ (aggregate per A/D)
	AD5	16 Ch. ±6.25 to ±50.0 VDC FSR; 16-bit SAR, 8 Ch. x 2 A/D multiplexed, 400 kHZ (aggregate per A/D)
	AD6	16 Ch. ±12.5 to ±100.0 VDC FSR; 16-bit SAR, 8 Ch. x 2 A/D multiplexed, 400 kHZ (aggregate per A/D)
	ADE	16 Ch. ±10 VDC FSR; 200 kHz (max.), 16-bit SAR
	ADF	16 Ch. ±100 VDC FSR; 200 kHz (max.), 16-bit SAR
	ADG	16 Ch. ±25 mA FSR; 200 kHz (max.), 16-bit SAR
	ADH	8 Ch. ±100 VDC FSR; Individual SAR (ADF-type) 8 Ch. high current & common mode with external shunt
I/O TTL/CMOS	TL1	24 Ch. 3.3V / 5V tolerant, high-speed, programmable
	TL2	24 Ch. 3.3V / 5V tolerant, high-speed, programmable, enhanced
	TL3-TL8	24. Ch. 3.3V / 5V tolerant, multiple strapping options

Function	Module	Description
D/A Converter	DA1	12 Ch. ±10 VDC or ± 25 mA / Ch.
	DA2	16 Ch. ±10 VDC @ 10 mA max. / Ch.
	DA3	4 Ch. ±40 VDC or ± 100 mA / Ch.
	DA4	4 Ch. ±20 to ± 80 VDC @ ±10 mA max. / Ch.
	DA5	2 Ch. 65 VDC @ ±2A max., external applied VCC source
I/O Discrete	DT1	24 Ch. Discrete I/O, 0 - 60 VDC, 500 mA / Ch. max.
	DT2	16 Ch. Discrete-switch , ±80V, 625 mA / Ch. max., isolated
	DT3	4 Ch. Discrete-switch, 65 V, 2A / Ch. as half-bridge configuration, ext. VCC or 2 Ch. ±65V, 2A / Ch. as full-bridge configuration, ext. VCC
	DT4	24 Ch. Discrete I/O, 0 - 60 VDC, 500 mA / Ch. max., enhanced operation
	DT5	16 Ch. Discrete-switch, ±80 V, 625 mA / Ch., enhanced operation
I/O Differential	DF1	16 Ch. RS-422/485 I/O transceiver
	DF2	16 Ch. RS-422/485 I/O transceiver, enhanced
I/O Relay	RY1	4 Ch. SPDT, 220 VDC / 250 VAC, 2 A, 60W / 62.5 VA max., non-latching
	RY2	4 Ch. SPDT, 220 VDC / 250 VAC, 2 A, 60W / 62.5 VA max., latching

Position, Timing, Measurement & Simulation

Function	Module	Description
AC Excitation / Reference	AC1	1 Ch. 2-28 Vrms (LV) & 1 Ch. 28-115 Vrms (HV), programmable
	AC2	2 Ch. 2-28 Vrms (LV), 47 Hz -20 kHz (max. range),
	AC3	2 Ch. 28-115 Vrms (HV), 47 Hz - 2.5 kHz (max. range)
SYN/RSL-to-Dig	SD1	4 Ch. 2-28 Vrms Input, 2-115 Vrms Exc, 47 Hz - 1 Hz Freq
	SD2	4 Ch. 2-28 Vrms Input, 2-115 Vrms Exc, 1 kHz - 5 kHz Freq
	SD3	4 Ch. 2-28 Vrms Input, 2-115 Vrms Exc, 5 kHz - 10 kHz Freq
	SD4	4 Ch. 2-28 Vrms Input, 2-115 Vrms Exc, 10 kHz - 20 kHz Freq
	SD5	4 Ch. 28-90 Vrms Input, 2-115 Vrms Exc, 47 Hz - 1 kHz Freq
Dig-to-SYN/RSL Dig-to-L(R)VDT	DSx / DRx / DLx	3, 2 or 1 Ch. @ 0.5 VA, 2.2 VA or 3.0 VA 2-90 Vrms / 2-115 Vexc @ 47 Hz – 20 kHz (Multi-range inputs / frequency; reference module detailed specifications)

Function	Module	Description
Thermocouple & RTD (Measure)	TC1	8 Ch. Thermocouple, J, K, T, E, N, B, R, S, and Low-voltage A/D
	RT1	8 Ch. RTD (2,3 or 4 wire), standard PT-type to 4 kohm
	TR1	8 Ch. RTD (RT1-type) or Thermocouple (TC1-type), program per Ch.
L(R)VDT-to-Dig	LD1-5	4 Ch. 2-28 Vrms Input, 2-115 Vrms Exc (47 Hz - 20 kHz Freq. and 2-90 Vrms ranges, reference detailed specifications)
Strain Gage	SG1	4 Ch. Strain Gage, full, ½ or ¼-bridge measurement
Accelerometer	AM1	4 Ch. 2-12V Exc., 2.5 Hz – 38.4 kHz, w/ FFT algorithm
GPS	GP1	Multi-Ch. (satellite) GPS & IRIG Receiver or Source; 2x wide module, Javad TR2 high-performance GPS engine
	GP2	Multi-Ch. (satellite) GPS & IRIG Receiver or Source; 1x wide module, uBlox Neo GPS engine
IRIG	RG1	1 Ch. receiver or source, multi-mode digital and analog w/ master timer

Communication

Function	Module	Description
CANBus	CB1	8 Ch. CANBus, CAN 2.0 A/B Protocol
	CB2	8 Ch. CANBus, J1939 Protocol
	CB3	8 Ch. CANBus, CAN 2.0 A/B Protocol or J1939 Protocol, programmable
Time-Triggered Ethernet (TTE)	TE2	1 Ch. Tri-redundant, TTE SAE AS6802 / ARINC 664 Part 7 (AFDX®) / IEEE 802.3 Ethernet Deterministic Communications; PCIe I/F
Ethernet	EM1	2-Port 10/100/1000Base-T Ethernet NIC, Intel 82850, PCIe I/F to processor (local or off-board host)
	ES2	16-Port 10/100/1000Base-T, managed switch, with L2/L3 Layer support 4x 10Gb Fiber Optic option, 2x wide module
MIL-STD-1553	FTA, FTB, FTC	1, 2 & 4 Ch. MIL-STD-1553, Dual Redundant, XFMR-Coupled, assisted mode capable with local offload-processing
	FTD, FTE, FTF	1, 2 & 4 Ch. MIL-STD-1553, Dual Redundant, Direct-Coupled assisted mode capable with local offload-processing

Function	Module	Description
MIL-STD-1760	FTJ	1 Ch. MIL-STD-1553 / 1760, XFMR-Coupled
	FTK	2 Ch. MIL-STD-1553 / 1760 XFMR-Coupled
Serial	SC1	4 Ch. Serial Communications, multi-mode RS-232/422/485/423 capable, ASYNC/SYNC (S/HDLC) non-isolated
	SC2	4 Ch. Serial Communications, multi-mode programmable, isolated
	SC3	8 Ch. Serial Communications RS-232/422/485 or GPIO, non-isolated
	SC7	4 Ch. Serial Communications, multi-mode, individual GNDs, non-isolated
ARINC	AR1	12 Ch. ARINC 429/575, TX or RX
	AR2	1 Ch. ARINC 568 (TX & RX) & 1 Ch. ARINC 579 (TX or RX)
PROFIBUS	PB1	1 Ch. DP Master/Monitor w/ 8 Ch. Repeater
IEEE-1394b	FW1 (FW2)	2 Ch. x 3-Port each Ch. Firewire transceiver, w/ 20-meter TLIM (or Direct) I/F

Combination and Specialty

Function	Module	Description
Combination	CM2	8 Ch. ARINC 429/575 & 12 Ch. Discrete I/O
	CM4	12 Ch. Discrete I/O & 2 Ch. Serial (SC3-type)
	CM5	2 Ch. MIL-STD-1553 & 8 Ch. ARINC 429/575
	CM8	2 Ch. MIL-STD-1553 & 12 Ch. Discrete I/O
	CME	8 Ch. A/D (ADE-type) & 8 Ch. D/A (DA2-type)
	CMF	8 Ch. A/D (ADF-type) & 8 Ch. D/A (DA2-type)
	CMG	8 Ch. A/D (ADG-type) & 8 Ch. D/A (DA2-type)

Function	Module	Description
Flash	FM1	240 GB SSD, SATA II, MLC, -40° C to +85° C
	FM2	480 GB SSD, SATA II, MLC, -40° C to +85° C
	FM4	128 GB SSD, SATA II, SLC, -40° C to +85° C
	FM5	256 GB SSD, SATA II, SLC, -40° C to +85° C
	FM7	1 TB SSD, SATA II, TLC, 0° C to +70° C
	FM8	1 TB SSD, SATA II, TLC, -40° C to +85° C
	FM9	2 TB SSD, SATA II, TLC, -40° C to +85° C

For more information Contact TPT KK

詳細はﾒｰﾙ（ sales.t@tptech.co.jp ） でのお問い合わせもしくはﾎｰﾑﾍﾟｰｼﾞ（ http://www.tptech.co.jp/） をご参照ください。

ティー・ピー・ティー株式会社
〒110-0008 東京都台東区池之端 1-6-13 （ 境会館 5F)
電話：03-5832-7350