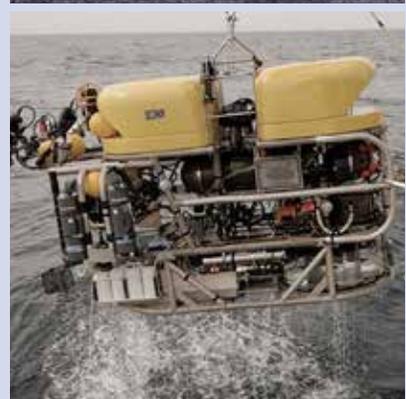


RUGGED | RELIABLE | COMPACT | FLEXIBLE



2017 UNITED ELECTRONIC INDUSTRIES

# CHASSIS & I/O BOARD SPECIFICATIONS



QUICK REFERENCE GUIDE



Akatec Ingenieros SL  
Telf/Phone: +34 918 287 247  
email: comercial@akatec.es  
www.akatec.es



# Build Your Perfect System with UEI

UEI has created a quick and easy way to build your perfect I/O system. We have identified 3 dimensions—chassis, I/O selection, and software/programming options—that allow you to assemble an ideal system for your application. Below is a graphical overview of each segment and what is included in the build process.

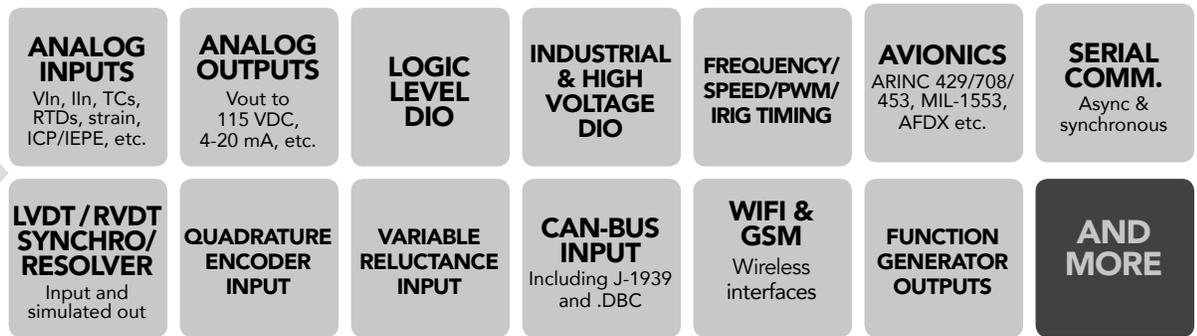
**STEP 1**  
CHOOSE  
YOUR  
CHASSIS

1



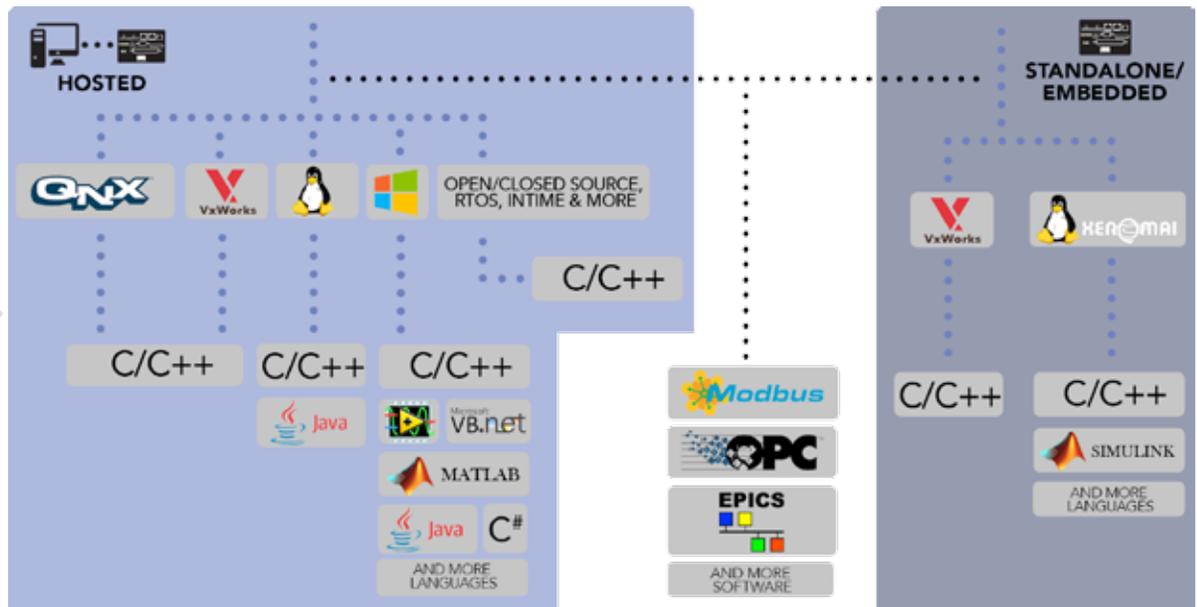
**STEP 2**  
CHOOSE  
YOUR I/O

2



**STEP 3**  
CHOOSE  
YOUR  
SOFTWARE/  
PROGRAMMING

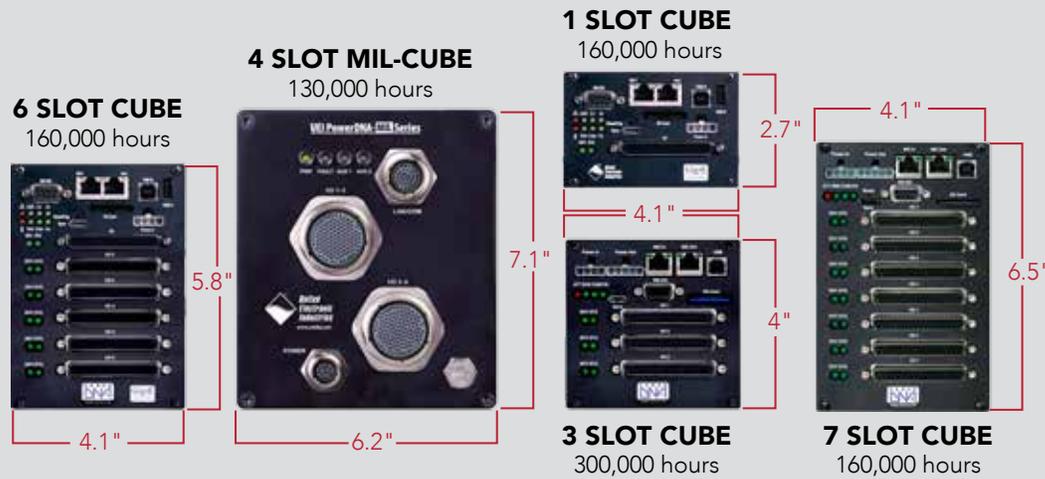
3



**It's really that simple!**

# CHASSIS OVERVIEW

## PowerDNA CUBE ARCHITECTURE



**3, 6, and 7 slot Cubes are available in GigE and PPC versions.**  
GigE: Version with 1000/100/10Base-T interface.  
PPC: Standard version with 10/100Base-T, RJ-45 connectors, or Fiber connectors.

### Common Features

- 1, 3, 4, 6 or 7 available I/O slots
- 9-36 VDC input
- Diagnostic serial port
- SYNC port (chassis-to-chassis)
- -40° C to 85° C
- 38999 connections available
- LED health/status indicators
- 5g vibration, 100g shock, 120,000 ft
- USB
- 10/100/GigE or fiber

THE CUBE IS THE IDEAL SOLUTION WHEN YOUR APPLICATION CALLS FOR MAXIMUM RUGGEDNESS IN THE SMALLEST POSSIBLE PACKAGE.

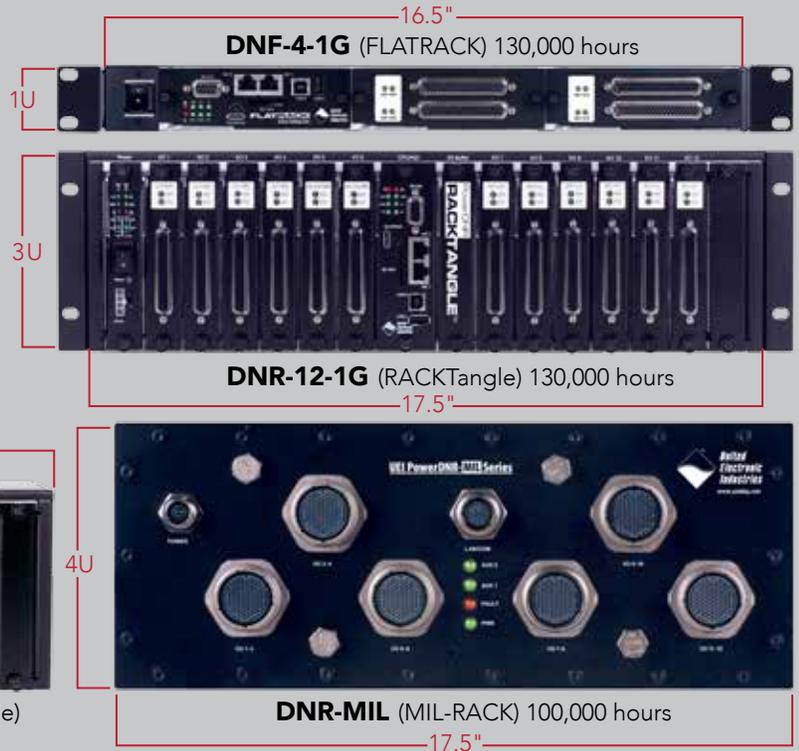
**Wireless Ready (GSM, CDMA, WiFi)**  
All UEI Chassis are wireless-ready, except for MIL Series. Inquire further with your UEI representative.

## PowerDNR RACKtangle® ARCHITECTURE

### Common Features

- 4, 6 or 12 I/O boards
- Passive backplane with temp sensors
- CPU/NIC board same as GigE Cube (2 independent)
- Extensive built-in test & diagnostics
- 5g Vibration, 100g Shock, 70,000 ft
- -40° C to +70° C
- USB
- 38999 Connections
- 2 independent GigE NICs

**Wireless Ready (GSM, CDMA, WiFi)**  
All UEI Chassis are wireless-ready, except for MIL Series. Inquire further with your UEI representative.



THE RACKtangle IS DESIGNED TO ALLOW YOUR SYSTEM TO BE QUICKLY & EASILY RECONFIGURED.

UEI's Cube, RACKtangle® and FLATRACK™ I/O chassis are compact and rugged data acquisition (DAQ) interfaces, ideally suited for a wide variety of industrial, military, aerospace, energy, laboratory DAQ and control applications. Each Cube/RACKtangle chassis includes a CPU, real-time OS, Ethernet interface and slots allowing the installation of I/O boards. All our boards are compatible with all of our chassis options. With more than 60 I/O boards available, we're sure to have just what you need. UEI supports all popular Windows, Linux and Real-time operating systems. Our software suite provides a simple, universal API and supports all common programming languages. Our Cube/RACKtangle chassis fully support an extensive array of application packages including LabVIEW, MATLAB, Simulink and more.

Please note that PowerDNA® (Distributed Networked Automation) refers to our unique chassis. Cubes are designated with a "DNA" prefix, RACKtangles a "DNR" prefix, and FLATRACK a "DNF" prefix. UEINet™ is our single slot cube. "MIL" designates a chassis meets military-grade specifications MIL-STD-704/1275/461/810.

# ANALOG INPUT

Board Type	Part Number (DNx-)	Number of Channels	Resolution (Bits)	Maximum Sample Rate (Channel) kS/sec	Maximum Sample Rate (Board) kS/sec	Simultaneous Sampling (no MUX)	Maximum Input Range	Minimum Input Range	Channel-to-Channel Isolation	MTBF
General purpose, low noise	AI-207	16	18	16	16	-	±10 V	±12.5 mV	-	>600,000
High speed, simultaneous sampling	AI-217	16	24	120	480	✓	±10 V	±156 mV	-	275,000
High density	AI-248-230	24	18	0.25	6	-	+32 / -2 V	+32/-2 mV	-	550,000
High density, high speed	AI-201-100	24/12	16	100	100	-	±15 V	±1.5 mV	-	600,000
High speed, high voltage	AI-205	4	18	250	1000	✓	±100 V	±100 mV	✓	>600,000
High speed, fully isolated	AI-218	8	24	120	480	✓	±10 V	±156 mV	✓	200,000
Medium voltage, fully isolated	AI-228	8	24	120	480	✓	±75 V	±9.38 V	✓	200,000
High voltage, fully isolated	AI-228-300	8	24	120	480	✓	±300 V	±37.5 V	✓	200,000
Current input	AI-202	12	16	16	16	-	±150 mA	±1.5 mA	-	>600,000
0-20 / 4-20 mA input	AI-204	24	18	1	24	-	0-20 mA	0-0.2 mA	-	>500,000
Thermocouple	AI-212	12	24	0.100	1.2	✓	±2.048 V	±32 mV	✓	230,000
Thermocouple, high resolution, high density	AI-225	25	24	1	25	✓	±1.25 V	-	-	520,000
RTD / resistance	AI-222	12	24	0.150	1.8	✓	40k ohm	100 ohm	✓	230,000
Strain / bridge input, low cost	AI-208	8	18	8	8	-	±10 V	±12.5 mV	-	>600,000
Strain / bridge input, high performance	AI-224	4	18	100	400	✓	±10 V	±78 mV	✓	260,000
ICP / IEPE accelerometers	AI-211	4	24	125	500	✓	+25 / -13 V	±2.5 V	✓	250,000
LVDT / RVDT	AI-254*	4	16	5	20	✓	±39.6 V	±39.6 V	✓	275,000
Synchro / resolver	AI-255*	2	16	4	8	✓	±39.6 V	±39.6 V	✓	275,000
Synchro / resolver & LVDT / RVDT, high drive	AI-256*	2	16	10	20	✓	±39.6 V	±39.6 V	✓	275,000

\*Also provides simulated sensor outputs.

## ANALOG OUTPUT—GENERAL PURPOSE

Board Type	Part Number (DNx-)	Number of Channels	Update Rate (Channel) kS/sec	Update Rate (Board) kS/sec	Output Range (Volts)	Output Current Drive (mA)	Channel-to-Channel Isolation	MTBF
General Purpose	AO-308	8	100	500	+/-10	+/-5	-	480,000
Fully isolated with readback	AO-318	8	10	80	+/-10	+/-10	✓	200,000
High current	AO-308-350	8	100	800	+/-10	+/-50	-	480,000
High density	AO-332	32	10	320	+/-10	+/-10	-	400,000
High density with readback	AO-333	32	10	320	+/-10	+/-10	-	400,000
Medium voltage/current	AO-308-352	8	100	800	+/-13.5	+/-13.5	-	480,000
High voltage	AO-308-353	8	100	800	+/-40	+/-5	-	480,000
Current output (0-20 mA)	AO-308-020	8	100	800	-	0-20	-	480,000
Current output (0-20 mA), isolated with readback	AO-318-020	8	10	80	-	0-20/4-20	✓	200,000
Current output (4-20 mA)	AO-308-420	8	100	800	-	4-20	-	480,000
High current buffer (external)	DNA-STP-AO-200	8	-	-	+/-10	+/-250	-	200,000
High current, high voltage (external)	DNA-STP-AO-250	4	-	-	0 - 35	+/-250	-	200,000
High voltage amplifier (external)	PD-AO-AMP-115	16	-	-	+/-115	+/-10	-	100,000
FUNCTION GENERATOR/AWFG								
Function / arbitrary waveform generator	AO-364	4	150 (D/A @ up to 16.5 MHz)	600	+/-12	+/-10	✓	290,000

Guardian Series—Includes a variety of powerful diagnostic and BIT functionality.

## ANALOG OUTPUT—SIMULATION

Board Type	Part Number (DNx-)	Number of Channels	Update Rate (Channel) kS/sec	Update Rate (Board) kS/sec	Output Range (Volts)	Output Current Drive (mA)	Channel-to-Channel Isolation	MTBF
SIMULATED DEVICE/SENSOR								
Strain gage simulator, 120/350/1k Ohm	AO-358-120/350 or 1k	8 Bridges	5	40	N/A	N/A	-	250,000
Simulated LVDT / RVDT	AI-254	4	5 kHz exc	-	0 - 6.7 Vrms	65 mA	✓	275,000
Simulated synchro / resolver	AI-255	2	4 kHz exc	-	0 - 28 Vrms	1.2 VA	✓	275,000
Simulated S/R & LVDT / RVDT, high drive	AI-256	2	10 kHz exc	-	0 - 19.8 Vrms	2.4 VA	✓	275,000
Transformer for AI-254	TRF-254-447	4	5 kHz	-	4.47:1 ratio	4.47:1 ratio	-	-
Transformer for AI-254	TRF-254-122	4	5 kHz	-	1.22:1 ratio	1.22:1 ratio	-	-

# DIGITAL I/O

Board Type	Part Number (DNx-)	Number of Channels	Input (kHz)	Output (kS/s)	Drive Capacity (Continuous/Peak)	Range (min V)	Range (max V)	PWM	MTBF
DISCRETE I/O									
Logic level	DIO-403	48	10	20	16 mA	2.5	5.5	-	>600,000
Sourcing outputs, 3.3-36 VDC inputs	DIO-404	12 in/12 out	100	100	350 mA	3.3	36	-	375,000
Sourcing Darlington outputs, 5-36 VDC inputs	DIO-405	12 in/12 out	1	1	80 mA / 200 mA	5	36	-	>600,000
Sinking outputs, 3.3-36 VDC inputs	DIO-406	12 in/12 out	100	100	1 A / 1.5 A	3.3	36	-	375,000
DISCRETE INPUTS									
5-36 VDC inputs	DIO-401	24	1	-	-	5	36	-	>600,000
0-32 VDC inputs	DIO-448	48	1	-	-	-1	32	-	550,000
0-150 VAC / DC inputs	DIO-449	48	1	-	-	-150	150	-	400,000
DISCRETE OUTPUTS									
Sourcing Darlington outputs	DIO-402	24	-	1	80 mA / 200 mA	7	36	-	>600,000
Solenoid fail safe drive (source/sink), 3.3-36 VDC	DIO-416-32	32	-	0.125	500 mA / 3.5 A	3.3	48	-	130,000
Sinking outputs, 3-36 VDC	DIO-432	32	-	1	600 mA / 3.5 A	3.3	36	✓	260,000
Low-leakage, sinking outputs, 3-36 VDC	DIO-432-800	32	-	1	600 mA / 3.5 A	3.3	36	✓	260,000
Sourcing outputs, 3-36 VDC	DIO-433	32	-	1	600 mA / 3.5 A	3.3	36	✓	260,000
Low-leakage, sourcing outputs, 3-36 VDC	DIO-433-800	32	-	1	600 mA / 3.5 A	3.3	36	✓	260,000
RELAY OUTPUTS									
Relay outputs, Form C	DIO-452	12	-	0.125	2 A	0	220 VDC / 250 VAC	-	300,000
Relay outputs, Form C	DIO-462	12	-	0.125	2 A	0	220 VDC / 250 VAC	-	260,000
Solid state relay outputs, Form A (NO)	DIO-463	12	-	0.125	2 A	0	51 VDC / 35 VAC	-	260,000
High current relay outputs, Form C	DIO-470	10	-	0.125	5 A	0	220 VDC / 250 VAC	-	300,000
Solid state relay outputs, Form A	DIO-430	30	-	1	400 mA / 2 A	0	55 VDC / 55 VAC	-	300,000

## SERIAL / CAN BUS

Communications Bus Protocol	Part Number (DNx-)	Physical Interface	Number of Channels	Transfer Rate	Notes	Channel-to-Channel Isolation	MTBF
High speed CAN	CAN-503	CAN 2.0	4	1 Mbit	J1939 and CAN .dbc support	✓	350,000
4-port serial	SL-501	RS-232/422/485	4	2 Mbaud	J1587/J1708, interrogation scheduler	✓	350,000
4-port high speed serial	SL-501-804	RS-232/422/485	4	4 Mbaud	J1587/J1708, interrogation scheduler	✓	350,000
HDLC/SDLC synchronous	SL-504	RS-232/422/423/485	4	4 Mbaud	HDLC/SDLC TX/RX synchronous	✓	290,000
8-port serial	SL-508	RS-232/422/485	8	2 Mbaud	J1587/J1708, interrogation scheduler	✓	290,000
GP synchronous serial interface	CT-602-804	RS-485/422	4	16 Mbaud	General purpose	✓	350,000

Remote Serial Server available for all RS232/422/485 boards on Linux & Windows.

## COUNTER / TIMERS

Counter/timer function	Part Number (DNx-)	Type	Number of Channels	Clock Rate	Notes	Channel-to-Channel Isolation	MTBF
High speed counter/timer	CT-601	32 Bits	8	66 MHz	Debouncing on Ext Clock & Gate	-	350,000
Differential counter/timer	CT-602	32 Bits	4	66 MHz	RS-422/485 logic levels	✓	350,000
Quadrature encoder input	QUAD-604	A,B, & Z inputs	4	16.5 MHz	Buffered or single point readings	-	350,000
Universal speed input	VR-608	50 mV - 250 V p-p	8	300 kHz	4 Freq out, double/low tooth	✓	180,000
IRIG timing gen & synch	IRIG-650	A/B/E/G type	1	1, 5, 10 MHz	On-board GPS receiver	✓	240,000
Precision timing interface	CT-651	ICD-GPS-060	4	1 PPS	Slaved or free run/fix wheel	✓	300,000

## AVIONICS I/O

Protocol	Part Number (DNx-)	Type	Number of Channels	Transfer Rate	Notes	Channel-to-Channel Isolation	MTBF
ARINC-429	429-566	6 TX / 6 RX	12	12.5/100 kHz	Williamsburg v1 support	-	470,000
ARINC-429	429-512	12 RX	12	12.5/100 kHz	Williamsburg v1 support	-	470,000
ARINC-429	429-516	16 TX	16	12.5/100 kHz	256 labels/ch on-board scheduler	✓	470,000
ARINC-615	429-XXX	Up to 16	16	12.5/100k baud	Williamsburg for airborne & portable data loader	✓	470,000
ARINC-708/453	708-453	2 TX / 2 RX	4	1 Mbaud	Weather or ground prox radar, WXPDP	✓	275,000
ARINC-825	CAN-503	4 Ports	4	83.3-1000 kb	Sensors, actuators	✓	350,000
AFDX & ARINC-664	AFDX-664	2 Ports	2	100,000 kb	Dual redundant or independent	-	130,000
ARINC-615A	AFDX-664	2 Ports	2	100,000 kb	Airborne & portable data loader for Ethernet	-	130,000
CSDB	CSDB-509	8 TX / 8 RX	8	12.5/100 kHz	11 bit, character and frame clocks	✓	290,000
1553 (Dual redundant)	1553-553	2 Ports	2	1 Mbaud	Bus cont, remote term, or BM	✓	275,000
M272/PRF/PIM	CT-602-808	M272 and PRF/PIM	1	1 Mbaud	Hellfire Missile interface	-	350,000

Guardian Series—Includes a variety of powerful diagnostic and BIT functionality.

## WIRELESS COMMUNICATIONS

Wireless Protocol	Part Number (DNx-)	Type	Number of Channels	Transfer Rate	Notes	Channel -to- Channel Isolation	MTBF
Wireless (GSM, CDMA, WIFI)	CAR-550	PCIe Mini compatible	1	-	For GigE UEIPAC Cubes	-	300,000
GPS receiver and IRIG I/O	IRIG-650	Passive or active antenna	1	-	Time derived from GPS/IRIG string	-	275,000
GPS receiver module	DNA-GPS	Garmin 16 Series	1	1 PPS	-	-	200,000

## POWER SUPPLIES

Output Voltage	Part Number (DNx-)	Number of Channels	Output V	Current (Max)	Notes	Channel -to- Channel Isolation	MTBF
10 V	PC-910	1	+/- 10	1.5 A	Isolation current/voltage feedback	-	150,000
15 V	PC-911	1	+/- 15	1.2 A	Isolation current/voltage feedback	-	150,000
24 V	PC-912	1	+24	1.6 A	Isolation current/voltage feedback	-	150,000
45 V	PC-913	1	+/- 45	0.4 A	Isolation current/voltage feedback	-	150,000
MIL-704/1275	PC-921	Internal	-	-	MIL-STD-704/1275/461 power conditioner	-	150,000

## RECONFIGURABLE

Board Type	Part Number (DNx-)	Connection	Notes	FPGA
Reconfigurable FPGA	PL-820	2x 62 Pin	104 DIO Pins, JTAG connections	MAX10 / Cyclone II
FPGA baseboard	PL-60x	37 or 62	Connection to custom daughter card	Cyclone III

### THE UEI GUARDIAN SERIES ADVANTAGE

UEI has developed a truly sophisticated and reliable on-board monitoring system called "Guardian." Guardian series I/O boards offer an extensive set of check, double check parameters including open/broken sensor detection, channel self-test without disconnection of field wiring, and current/voltage monitoring of outputs with circuit breaker functionality. You have a complete self-check capability from the chassis, to the card, and to the channel. This saves you time, reduces monitoring complexity and lowers costs by removing the reliance on external test equipment. With the UEI Guardian Advantage, you are assured your system is performing as expected to ensure application success.

# The Flexibility You Need for Your Applications

We pride ourselves on being operating system and software agnostic. Learn more about some of the popular OSs, programming languages and applications UEI supports.



**HOSTED** ..... OR ..... **STANDALONE/ EMBEDDED**

OSs









OPEN/CLOSED SOURCE,  
RTOS, INTIME  
& MORE

---

Software/Programming

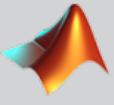
C/C++





Microsoft  
VB.net

C#



MATLAB

AND MORE  
LANGUAGES



**STANDALONE/ EMBEDDED**

OSs





---

Software/Programming

C/C++



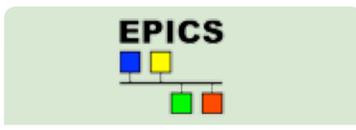
AND MORE  
LANGUAGES

## Applications



**Hosted & Embedded/  
Standalone.**

OPC and OPC-UA.



**Hosted & Embedded/  
Standalone.**

EPICS - Experimental Physics  
and Industrial Control System.  
Industrial Control System.



**Embedded/Standalone  
Only.**

Mosquitto - MQTT.  
Helix Device Cloud.  
Amazon AWS IoT.  
Microsoft Azure.



**Hosted.**

Modbus TCP.

# All the Accessories You Need to

## CUBE, RACK & MIL CHASSIS: AVAILABLE OPTIONS



DIN RAILS, BRACKETS/CLIPS



FLANGES



CHASSIS FILLER



EXTENDER BRACKETS



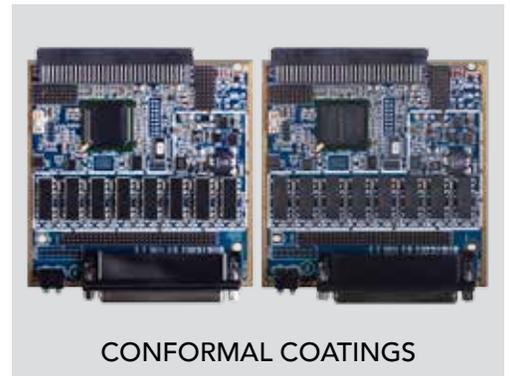
FANS



CHROMATE



ALTERNATE CHASSIS



CONFORMAL COATINGS

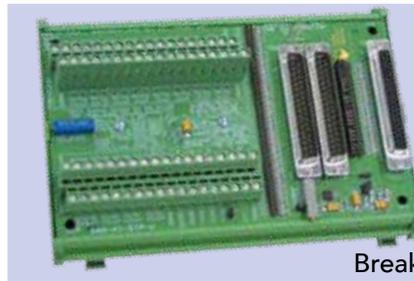
## CABLES, PANEL ADAPTERS & MORE: ADDITIONAL ACCESSORIES



Cables



SD Cards



Break Out Boards



Power Supplies



Universal  
Screw Terminal Panels



Test Adapters

**DON'T SEE WHAT YOU NEED?**  
We most likely have it!  
Contact your UEI representative today.

# Finish Your Your Perfect I/O System

## SCREW TERMINAL ACCESSORY PANELS

Board Type	Part #	Board Specific	Number of Channels	Connection	Included with Primary Board
37-channel input panel	DNA-STP-37	Any 37 pin connections	-	37	-
62-channel input panel	DNA-STP-62	Any 62 pin connections	-	62	-
Universal 37/62 channel	DNA-STP-37/62	37/62 pin connections	-	37/62	-
Universal analog input panel	DNA-STP-AI-U	DNx-AI-207/217, DNx-AI-225, DNx-201-100	16 and 25	37/62	-
Thermocouple input panel	DNA-STP-AI-207TC	DNx-AI-207	16	37	-
Strain gauge input panel	DNA-STP-AI-208	DNx-AI-208	8	37	-
Thermocouple input panel	DNA-STP-AI-212	DNx-AI-212	12	37	✓
Pull up/down resistors	DNA-STP-403	DNx-DIO-403 and DNx-DIO-448	48	62	-
High current input panel	DNA-STP-37HC	DNx-DIO-470	10	37	-
Serial 8-port input panel	DNA-STP-508	DNx-SL-508	8	62	-
Accelerometer input panel	DNA-STP-211	DNx-AI-211	4	37	✓
GPS input panel	DNA-STP-GPS	DNA-GPS	1	DB9	✓
Sync connection panel	DNA-STP-SYNC-1G	All	Up to 6 chassis	STP, BNC, DNA-CBL-SYNC-RJ	-
Debug adapter for 37 pin boards	DNA-TADP-37	All	-	37	-
Debug adazpter for 37 pin boards	DNA-TADP-62	All	-	62	-

## CABLES

Cable Description	Part #	Shielded	Lengths (Ft)	Included with Board
37-way, round cable (male-female)	DNA-CBL-37S	✓	1, 3, 5, 10, 20	-
37-way, flat ribbon cable (male-female)	DNA-CBL-37	-	3	-
Right angle 37-way, round cable (male-female)	DNA-CLB-37RA	✓	3	-
Special 37-way, high current (5 A) cable	DNA-CBL-37HC	✓	3,6,12	-
62-way, round shielded cable (male-male)	DNA-CBL-62	✓	2.5, 6, 10, 20, 40	-
Right angle 62-way, round shielded cable (male-male)	DNA-CLB-62RA	✓	3	-
Male 128-pin 38999 to 1x DB-62M	DNA-CBL-62M-03	✓	3	-
Male 128-pin 38999 to 1x DB-37F and 1x DB-62M	DNA-CBL-6237M-3	✓	3	-
Male 128-pin 38999 to 2x DB-37F	DNA-CBL-12837	✓	3,5	-
Male 128-pin 38999 to 2x DB-62M	DNA-CBL-12862	✓	5	-
Male 128-pin 38999 to 1x DB-37F	DNA-CBL-37M-03	✓	3	-
MIL power connector cable	DNA-CBL-1315-03	✓	3	-
MIL communications connector cable	DNA-CBL-LAN-06	✓	6	-
BNC connections for clock/IRIG	DNA-CBL-650	✓	2	DNA/DNR-IRIG-650
Male 62-pin to four MIL-STD-1553 connectors	DNA-CBL-1553-553	✓	1	DNA/DNR-1553-553
37-way to 4x 9-pin dSub serial ports, round shielded cable	DNA-CBL-COM	✓	1.5	-
Cube synchronization cable	DNA-CBL-SYNC-10	✓	10	-
Sync to RJ50 cable	DNA-CBL-SYNC-RJ	✓	3	-
10-32 UNF coaxial to std full-size BNC cable/adaptor	DNA-CBL-BNC	✓	3	-

**UEI HAS YOU COVERED!** A brief word on our warranties and guarantees that ensure your peace of mind



UEI is so confident in the dependability of our hardware we have extended our standard warranty from 2 years to 3 years. With a warranty return rate of less than 0.2%, it's easy to understand why we are capable of offering such a warranty!



UEI guarantees the availability of all chassis & I/O products for a minimum of 10 years. Unless you are specifically notified at the time of purchase, all chassis & I/O products will be available for repurchase for at least 10 years. Protecting you from obsolescence is a priority!

# Successful Applications start with UEI Hardware & I/O

Here is a sampling of typical application story briefs that illustrate the dynamic capabilities of UEI.



## FLIGHT SIMULATION

FlightSafety International selected UEI's RACKtangle I/O chassis for their flight simulators. The UEI system provides the interface between the controlling computers and the simulator's various systems including Avionics Instrument Control, Control Loading and Motion and Flight Deck I/O. UEI was selected because of our high channel density, our I/O combined with a Gigabit Ethernet interface to the real-time operating system, and our built-in diagnostics and self-test capabilities.



## MARINE CRAFT CONTROL

The Navy needed a rehost for obsolescence and dependability on 75 LCAC marine crafts. They were looking for a TRL9 redundant craft command and control system. A system that is designed not to fail. UEI was selected for our COTS embedded military rack system with included 1553, analog and digital I/O, rs-485, and more. UEI's system ran VxWorks and reduced maintenance time by an impressive 75%. UEI's rugged and dependable hardware met and exceeded expectations.



## JET ENGINE TEST CELL

The Air Force developed a next-gen standard design of a test cell for high performance gas turbine engines. The system was designed for thrust frames to be separable from the cell so they could be configured and calibrated as an off-line task – independent of the cell the frame was installed in. UEI equipment moved with the thrust frame so the system could be configured, tested, and calibrated with the engine either in or out of the test cell. Without our rugged COTS system, this would not be possible.



## ROCKET LAUNCH SYSTEM

From ground control to the International Space Station, our hardware is being used to control and monitor a large number of space related applications. Whether the application is military, NASA or with our growing list of commercial space customers, our hardware is becoming a staple in the space industry. Our redundancy and control feedback capability are crucial in these environments. UEI is the go-to vendor for launchpad hardware and I/O systems.



## OIL & GAS MONITORING

UEI is supporting the oil & gas industry by developing innovative hardware and I/O to monitor blow out preventers and oil rig temperature, as well as fail safe solenoid control applications. A major key to our solenoid control success has been our enhanced feedback monitoring. UEI's rugged, compact, accurate and reliable embedded systems are compatible with all SCADA systems. From well monitoring, current/voltage, and vibration, our chassis and I/O are seen as dependable oil & gas application solutions.



## SMART MUNITION TESTER

Common Armament Test Set (CATS) and Common Aircraft Armament Test Set (CAATS) programs are designed to test smart munitions equipment in a go/no go fashion. Many existing units in service today are based on dated VME technology that cannot handle increasing complex signal I/O, including MIL-STD-1760 and other sophisticated testing requirements. UEI hardware matches these needs, while being smaller, lighter, less expensive, more powerful than existing VME test systems. UEI's has been chosen to replace many of these dated systems.

Interested in learning more about our solutions?



Read more at [ueidaq.com](http://ueidaq.com)

We support your applications, including :

- Power plant efficiency testing
- High channel count medical instrumentation
- Modernization of SCADA I/O systems
- Machine health monitoring
- Wind turbine automation
- Engine test
- UUV/UAV command/control
- IoT sensor gateways
- Vibration/Strain monitoring
- Health and usage monitoring
- Fleet monitoring
- And many more!

UEI offers a diverse and flexible line of unique and powerful I/O chassis configurations. Whether you choose our Cube, Rack or MIL chassis, we have all the I/O options, OS, programming and software support for your applications.

## WATCH & LEARN



## WITH UEI VIDEOS

UEI has an extensive on-line library of product, application and educational videos to better help you learn about our capabilities and offerings.

Please visit [www.ueidaq.com/videos](http://www.ueidaq.com/videos)



Akatec Ingenieros SL  
Telf/Phone: +34 918 287 247  
email: [comercial@akatec.es](mailto:comercial@akatec.es)  
[www.akatec.es](http://www.akatec.es)