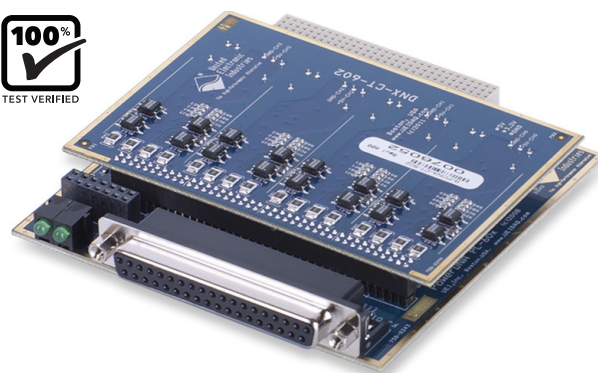# DNA/DNR-CT-602-808

Hellfire / M272 /PRF / PIM test interface

- DNA-CT-602 for use with "Cube" data acquisition & logging chassis
- DNR-CT-602 for use with RACKtangle™ I/O chassis
- Based on COTS DNx-CT-602 hardware
- Fully differential inputs/outputs at RS-422/485 logic levels
- 10 Counting modes with 32-bit prescaler in counter mode
- Supports SSI communications protocol in serial mode
- Programmable data word and frame synch length in serial mode.

General Description

The DNA-CT-602-808 and DNR-CT-602-808 are high performance multipurpose interfaces for UEI's "Cube" and RACKtangle I/O chassis respectively. These are designed to interface with and facilitate the testing of Hellfire missile launchers and the M272 interface. The boards also support PRF and PIM test interface/protocols. The DNA/DNR versions are electrically identical and provide four independent channels, each having over voltage protection and opto-isolation.

Pinout Diagram (M272/PRF/PIM):

Left	Pin		Pin	Right
Manchester Error Hi/+	1		20	Manchester Error Lo/-
Subsystem Error Hi/+	2		21	Subsystem Error Lo/-
Clock Hi/+	3		22	Clock Lo/-
Acknowledge Hi/+	4		23	Acknowledge Lo/-
GND(0)*	5		24	GND(1)*
Transmit Hi/+	6		25	Transmit Lo/-
Data In Hi/+	7		26	Data In Lo/-
Data Out Hi/+	8		27	Data Out Lo/-
Rsvd	9		28	Rsvd
Request Hi/+	10		29	Request Lo/-
Rsvd	11		30	Rsvd
Rsvd	12		31	Rsvd
Rsvd	13		32	Rsvd
GND(2)*	14		33	GND(3)*
Accept Out**	15		34	Rsvd
Code Select In**	16		35	Rsvd
Rsvd	17		36	Rsvd
Code Clock In	18		37	Rsvd
Rsvd	19			

Notes:

* The four isolated grounds must be connected in the field wiring. If it is preferred the PRF/PIM grounds may be kept isolated from M272. In this case the PRF/PIM ground should be connected to GND(3), Pin 33. Then GND(0), GND(1) and GND(2) should be tied together and to the M272 system ground
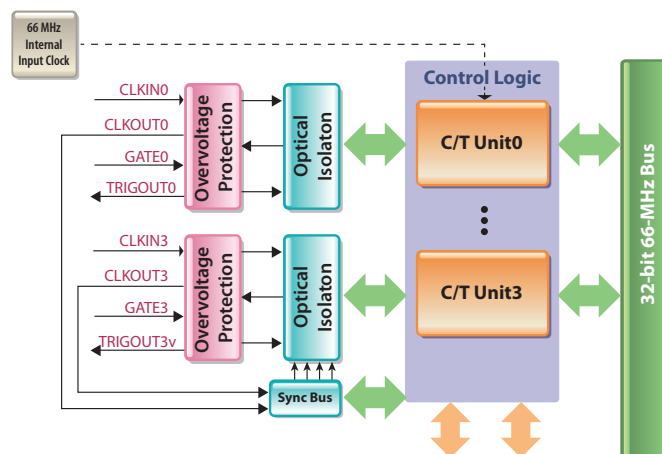
**Accept Out and Code Select In must be connected together in the field wiring.

Rsvd pins should be left floating.

Block Diagram

Notes:
1. Any counter input may be internally connected to the 66 MHz internal bus clock.
2. Any counter output may be internally connected to any inter-board synch bus signal.

Connection Options:

Cable	Terminal Panel	Description
DNA-CBL-37	DNA-STP-37	DNA-CBL-37 3 foot ribbon cable connects directly to the DNA-STP-37 Screw Terminal Panel.
DNA-CBL-37S	DNA-STP-37	DNA-CBL-37S 3 foot shielded cable connects directly to the DNA-STP-37 Screw Terminal Panel.