Appendix A
eNet-1553 Connector and Cable Assembly Information

J1 and J2 Connector Information – Alta & Glenair (GA) Part Numbers

http://www.glenair.com/index.htm

26-Pin Connectors are Keyed with “A” or “B” pattern. J1 uses the A pattern.

- **J1 Jack:** Glenair 801-011-02M10-26SA Female
  - **Glenair Mate/Male Part Number: 801-007-16M10-26PA**
  - Alta J1 Mate Part Number Number: ENETCON-1553-J1-01
- **J2 Jack:** Glenair 801-011-02M10-26SB Female
  - **Glenair Mate/Male Part Number: 801-007-16M10-26PB**
  - Alta J2 Mate Part Number Number: ENETCON-1553-J2-01
- Dust Cover Plug (probably only needed for J2, but works with either connector):
  - **Glenair Part Number:** 667-218-M-N10
  - Alta Mate Part Number Number: ENETDCAP-1553-J2-01

J1 and J2 Pin-Out Table

J1 Pin-Out	Signal	J2 Pin-Out	Signal
1	ETHERNET MX1+	1	SDISC1 / RTADDR_1
2	DC POWER IN +	2	SDISC3 / RTADDR_3
3	ETHERNET MX1-	3	SDISC2 / RTADDR_2
4	1553 CH 1A+	4	SDISC6 / RTADDR_P
5	GND	5	SDISC5 / RTADDR_5
6	ETHERNET MX2+	6	SDISC4 / RTADDR_4
7	GND	7	GND
8	N/C	8	GND
9	1553 CH 1A-	9	DDISC2+ (RS-485)
10	3.3V	10	TRIGGER IN
11	ETHERNET MX2-	11	DDISC1+ (RS-485)
12	1553 SHIELD \ CHASSIS GND	12	DDISC2- (RS-485)
13	GND	13	GND
14	N/C	14	GND
15	GND	15	DDISC1- (RS-485)
16	1553 CH 1B+	16	N/C
17	JTAG TDI	17	TRIGGER OUT
18	ETHERNET MX3+	18	N/C
19	JTAG TDO	19	~EXT RT ADD ENABLE
20	JTAG TRST	20	TX INHIBIT
21	1553 CH 1B-	21	IRIG IN
22	JTAG TMS	22	GND
23	ETHERNET MX3-	23	~FACTORY IP RESET
24	JTAG TCLK	24	GND
25	ETHERNET MX4+	25	GND
26	ETHERNET MX4-	26	EXT CLK I/O – TTL I/O

Optional J1 and J2 Cable Assemblies

eNet-1553 has two Glenn Air circular connectors labeled J1 (left-most) and J2 (right-most). Connector part numbers and pin-outs are provided in the eNet-1553 hardware manual. Alta provides optional cable assemblies for these connections and their part numbers are:

- **ENETCAB-1553-J1-01**
- **ENETCAB-1553-J2-01**

Both cables are IPC-610 Class 3/RoHS.

The ENETCAB-1553-J1-01 assembly is show below:

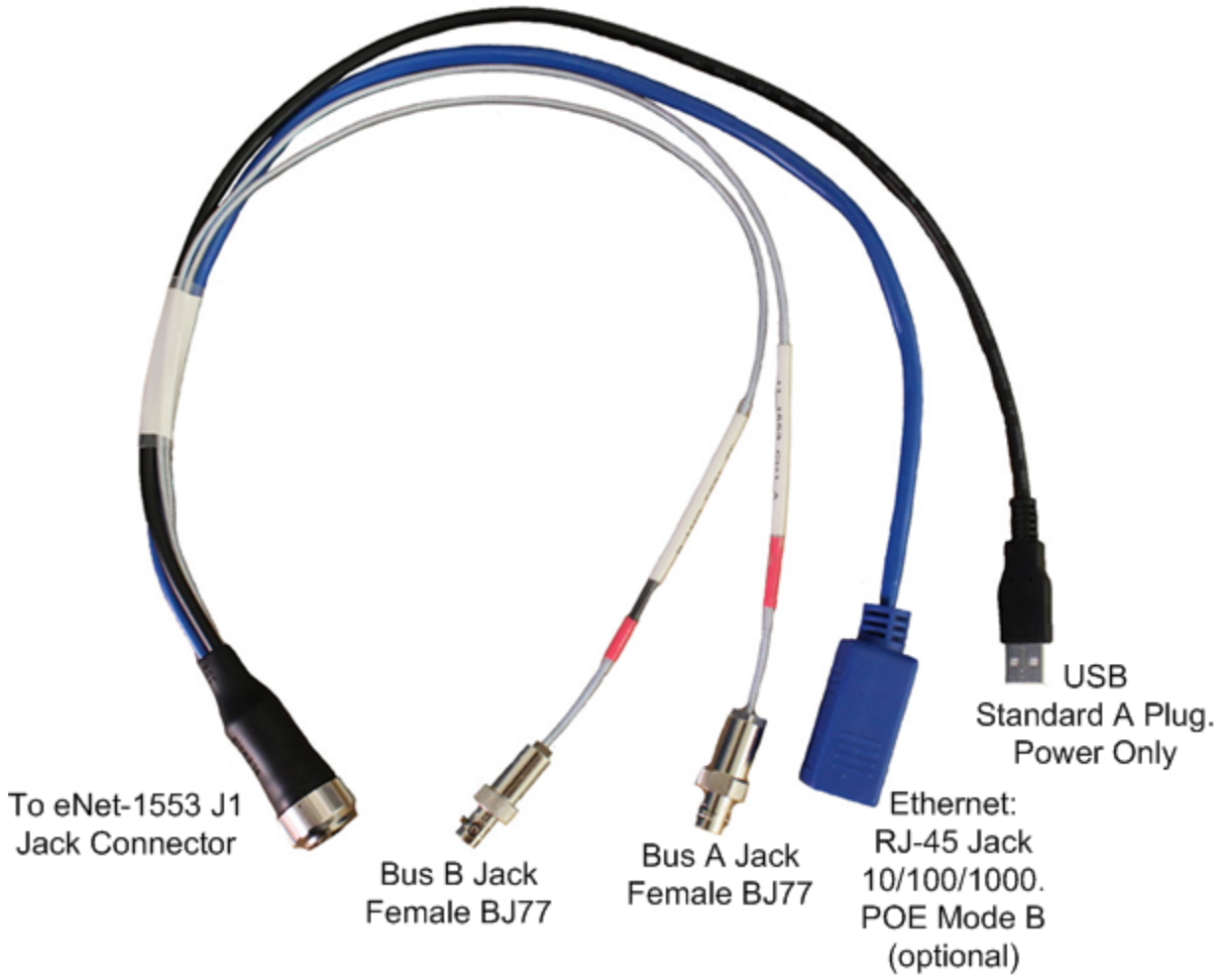
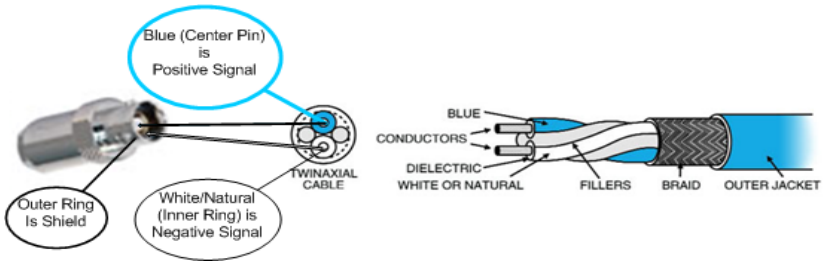


Figure A-1: Optional ENETCAB-1553-J1-01 Cable Assembly

ENETBCAB-1553-J1-01 Cable Assembly Notes:

- **Cable Length: Approximately 2ft**
- **Cable Assembly P1 and Part Number Label Approximately 2" from Base**
- **1553 Connectors are 3-Lug (BJ-77 Type) Female Connectors**
  - ~1" from Connector Base Label: Cable Part Number
    - CH1 A – Shrink Tube Color Code: Red
    - CH1 B –Shrink Tube Color Code: Red-Black Stripe
    - J1 1553 CH1 A
    - J2 1553 CH1 B
  - 1553 thin MIL Cable



- **Ethernet RJ45 Jack**
  - Depending on your computer, you may need a Cross-Over Cable Per T568B. Most computers auto negotiate and standard Patch Cables work. Recommend the following references:
    - http://en.wikipedia.org/wiki/Ethernet_physical_layer
    - **CAT 6 CABLE STRONGLY RECOMMENED**
    - Straight-Through Ethernet Cable Pin Out for T568B Per Table:

RJ45 Pin #	Wire Color (T568B)	Wire Diagram (T568B)	10Base-T Signal 100Base-TX Signal	1000Base-T Signal
1	White/Orange		Transmit+	BI_DA+
2	Orange		Transmit-	BI_DA-
3	White/Green		Receive+	BI_DB+
4	Blue		Unused	BI_DC+
5	White/Blue		Unused	BI_DC-
6	Green		Receive-	BI_DB-
7	White/Brown		Unused	BI_DD+
8	Brown		Unused	BI_DD-

Table A-1: Over-Molded Ethernet RJ-45 Jack Pin-Outs

- **USB Standard A Plug Connector (fits most computer USB jacks).**
  Power Only ("Functional Decoration" Device).
  - Recommend >1000 MA source, which is common on most computers, but low-end wall adapters may not provide enough power (recommend wall adapter ratings at 2000+ MA).
  - Pin 1 +5 Vcc; Pin 4 Ground; Data Pins 2 & 3 Not Connected

The ENETCAB-1553-J2-01 assembly is show below:

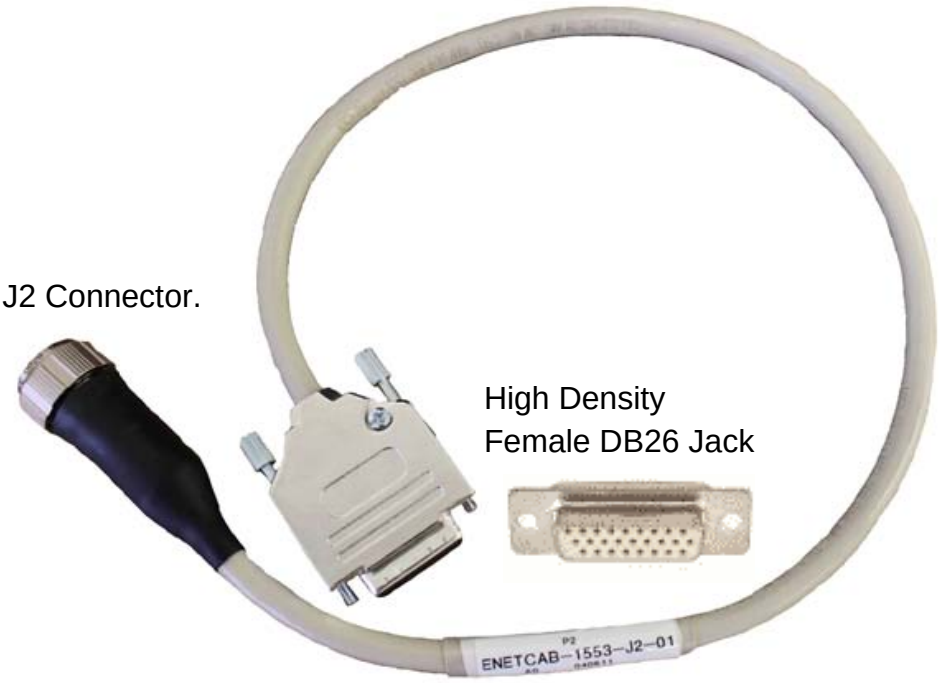


Figure A-2: Optional ENETCAB-1553-J2-01 Cable Assembly

ENETBCAB-1553-J2-01 Cable Assembly Notes

(Cable Approximately 2ft in Length)

- **Cable Assembly Part Number Label Approximately 2” from Base**
- **J1 DB26 Female High Density Connector** (Pin Numbers Marked on Connector)
    - ~1” from DB Connector - J1 Label

J2 Circular Pin	Signal	Cable Color	DB-26
1	SDISC1 / RTADDR_1	Green/Yellow	1
2	SDISC3 / RTADDR_3	Yellow/Green	3
3	SDISC2 / RTADDR_2	Green/Blue	2
4	SDISC6 / RTADDR_P	Blue/Green	6
5	SDISC5 / RTADDR_5	Brown/Green	5
6	SDISC4 / RTADDR_4	Green/Brown	4
7	GND	Black/Red	7
8	GND	Black/Blue	11
9	DDISC2+ (RS-485)	Green/White	15
10	TRIGGER IN	Red/Black	8
11	DDISC1+ (RS-485)	Green/Red	12
12	DDISC2- (RS-485)	White/Green	16
13	GND	Red/White	14
14	GND	White/Red	17
15	DDISC1- (RS-485)	Red/Green	13
16	N/C		
17	TRIGGER OUT	Blue/Black	10
18	N/C		
19	~EXT RT ADD ENABLE	Yellow/Black	19
20	TX INHIBIT	Black/Yellow	20
21	IRIG IN	Blue/Red	21
22	GND	Red/Blue	22
23	~FACTORY IP RESET	Green/Black	23
24	GND	Black/Green	24
25	GND	Black/Brown	26
26	EXT CLK I/O – TTL I/O	Brown/Black	25

Table A-2: J2 DB26 Pin-Outs