# Alta dt
## data technologies

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# Hardware Manual
### for
# PCCARD-A429

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CUSTOMER NOTES:

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**Revision Control History**
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# PCCARD Connector

## PCCARD Connector Pin-outs

Table 2. J1- 68-pin Connector

| J1 Pin# | Signal | Cable Color Code(Solid/Band) | J1 Pin# | Signal | Cable Color Code(Solid/Band) |
|---|---|---|---|---|---|
| 1 | RX1+/TX1+ | Black/Red | 35 | N/C | N/C |
| 2 | RX1-/TX1- | Red/Black | 36 | N/C | N/C |
| 3 | RX2+/TX2+ | Black/White | 37 | N/C | N/C |
| 4 | RX2-/TX2- | White/Black | 38 | N/C | N/C |
| 5 | RX3+/TX3+ | Black/Green | 39 | N/C | N/C |
| 6 | RX3-/TX3- | Green/Black | 40 | N/C | N/C |
| 7 | RX4+/TX4+ | Black/Blue | 41 | N/C | N/C |
| 8 | RX4-/TX4- | Blue/Black | 42 | N/C | N/C |
| 9 | RX5+ | Black/Yellow | 43 | N/C | N/C |
| 10 | RX5- | Yellow/Black | 44 | N/C | N/C |
| 11 | RX6+ | Black/Brown | 45 | N/C | N/C |
| 12 | RX6- | Brown/Black | 46 | N/C | N/C |
| 13 | RX7+ | Black/Orange | 47 | N/C | N/C |
| 14 | RX7- | Orange/Black | 48 | N/C | N/C |
| 15 | RX8+ | Red/White | 49 | N/C | N/C |
| 16 | RX8- | White/Red | 50 | N/C | N/C |
| 17 | GND | Green/Red | 51 | N/C | N/C |
| 18 | ~AutoTest | N/C | 52 | Discrete 1 | Green/Blue |
| 19 | TRIG_IN1 | Red/Green | 53 | N/C | N/C |
| 20 | TRIG_OUT1 | Red/Blue | 54 | Discrete 2 | Blue/Green |
| 21 | GND | Blue/Red | 55 | N/C | N/C |
| 22 | RS-485_1+ | Red/Yellow | 56 | N/C | N/C |
| 23 | RS-485_1- | Yellow/Red | 57 | N/C | N/C |
| 24 | RS-485_2+ | Red/Brown | 58 | N/C | N/C |
| 25 | RS-485_2- | Brown/Red | 59 | N/C | N/C |
| 26 | EXT TTL IO | Red/Orange | 60 | N/C | N/C |
| 27 | GND | Orange/Red | 61 | N/C | N/C |
| 28 | IRIG In | Green/White | 62 | N/C | N/C |
| 29 | IRIG GND | White/Green | 63 | N/C | N/C |
| 30 | JTAG PWR | N/C | 64 | N/C | N/C |
| 31 | JTAG CLK | N/C | 65 | N/C | N/C |
| 32 | JTAG TMS | N/C | 66 | N/C | N/C |
| 33 | JTAG TDI | N/C | 67 | N/C | N/C |
| 34 | JTAG TDO | N/C | 68 | N/C | N/C |

## PCCARD Connector Info

PCCARD Connector
Backshell: #191-000002-010
Honda Connector: #HDRA-68BA

# Arinc-717 Operation

## TX Operation

When a channel is set to transmit in Harvard Bi-Phase mode, this forces a TX channel pair (channels 1&2 and 3&4 pairs) to differentially drive the 0-5V positive leg of the ARINC-429 drivers. The odd channel is the positive differential signal and the even channel leg is the negative differential signal used to create the Harvard Bi-Phase 717 encoding. This setting is provided for older ARINC-717 DFDRS systems. This setting ONLY applies to the first four TX channels.

Table 3. TX Connections for ARINC-717 operation

| J1 Pin# | Signal | Cable Color Code(Solid/Band) |
|---|---|---|
| 1 | A717 TX1+ | Black/Red |
| 2 | N/C | N/C |
| 3 | A717 TX1- | Black/White |
| 4 | N/C | N/C |
| 5 | A717 TX2+ | Black/Green |
| 6 | N/C | N/C |
| 7 | A717 TX2- | Black/Blue |
| 8 | N/C | N/C |

## RX Operation

When a channel is set to receive in Harvard Bi-Phase mode, the same connector inputs are used as when operating in standard ARINC-A429 mode. This ONLY applies to the first two RX channels. See the ARINC (RX & TX) Protocol Engine Specifications-Users Manual more for information on setting the channel to operate in Harvard bi-phase mode.