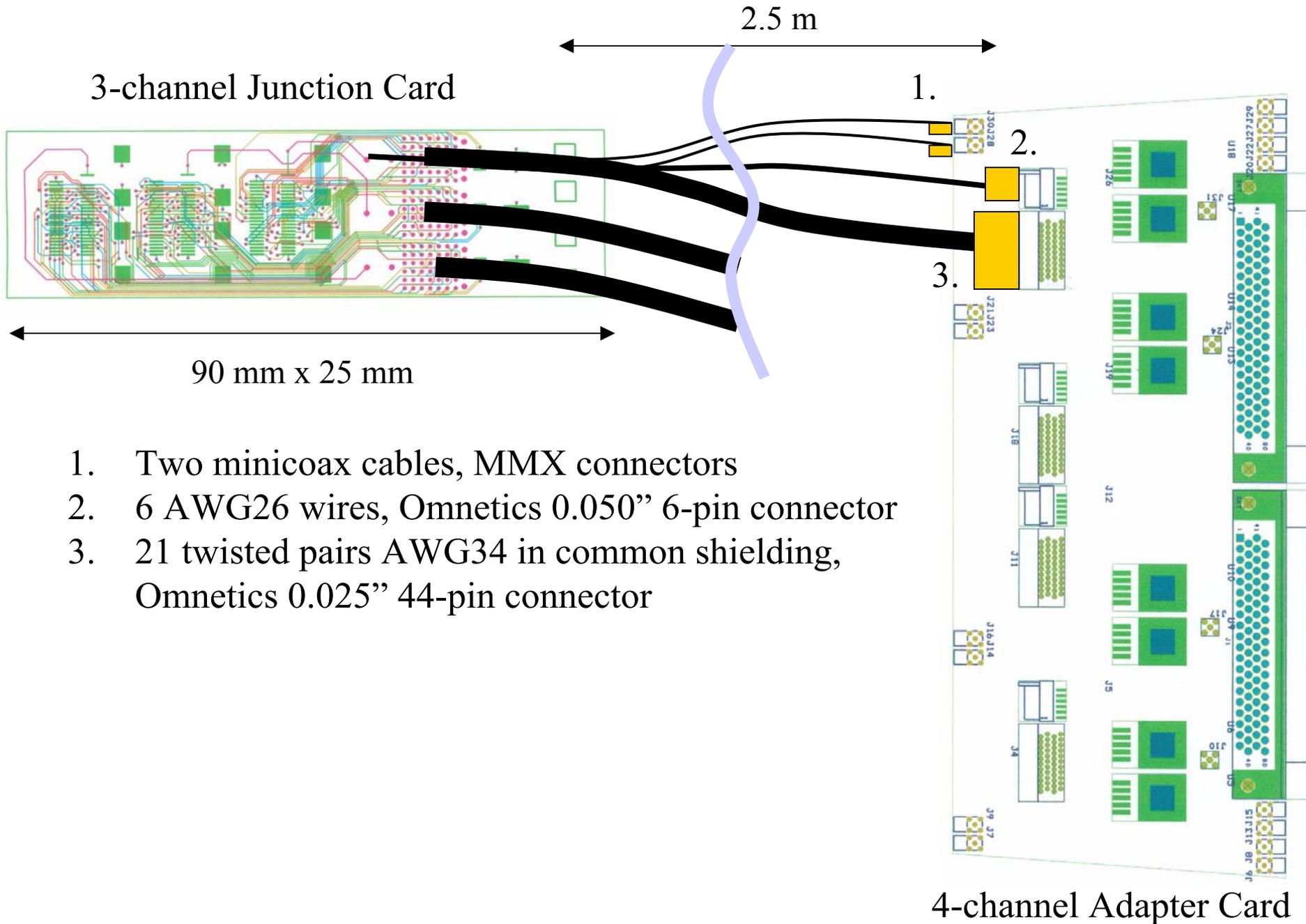
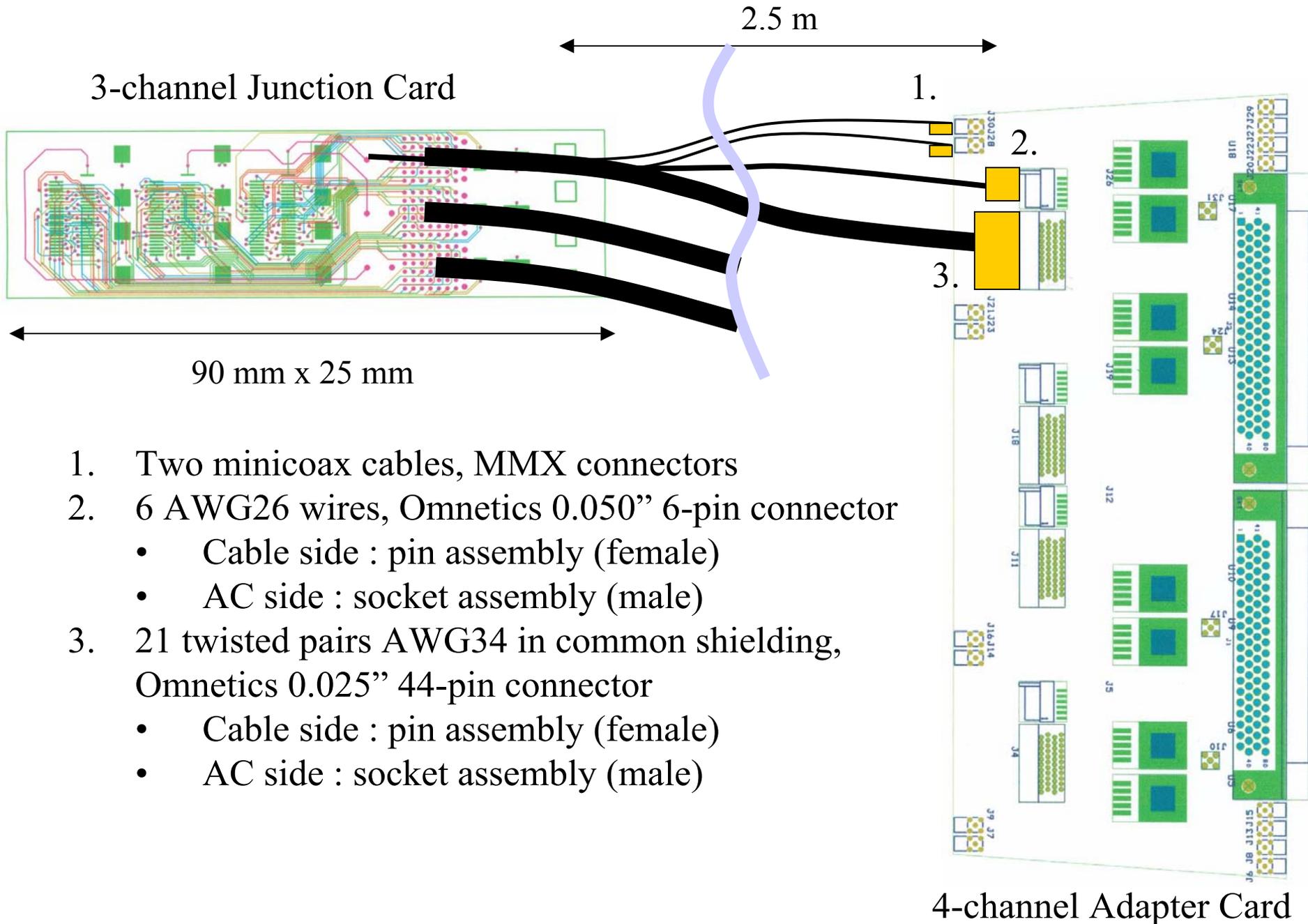


Twisted Pair Cable

Hybrid - Jumper Cable - Junction Card - **Twisted Pair Cable** – Adapter Card

- Dense assembly (OD 5-7 mm) with
 - Twisted pairs : total 21; 44-pin 0.625 mm dual row Omnetics connector
 - differential signals
 - single-ended signals
 - Temperature, voltage sensing, spares
 - Common shield
 - Connectors can be purchased terminated with twisted pairs
 - Power and HV lines
 - Clock mini-coaxial cables
- Round cross section – easy to route between Junction Cards and Adapter Cards

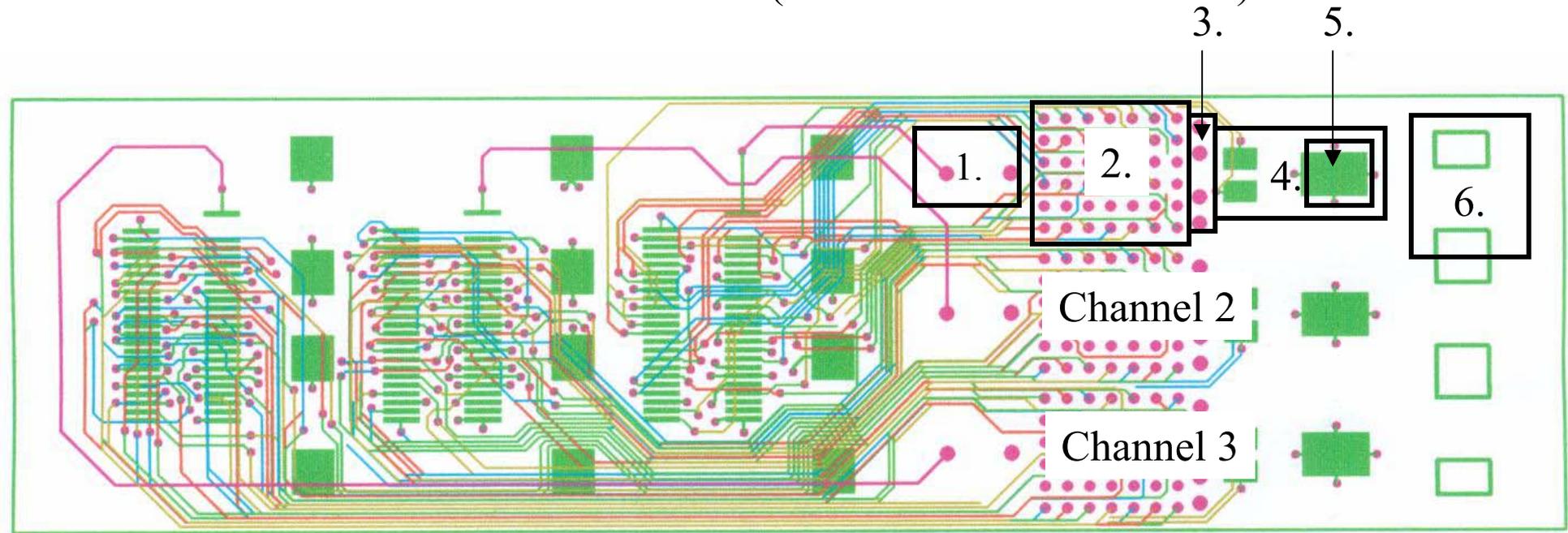




Channel 1

1. AWG26 HV field
2. AWG34 pair field
3. AWG26 LV field
4. Submini coax field
5. Common shielding field
6. Restrain field

(same for channels 2 and 3)



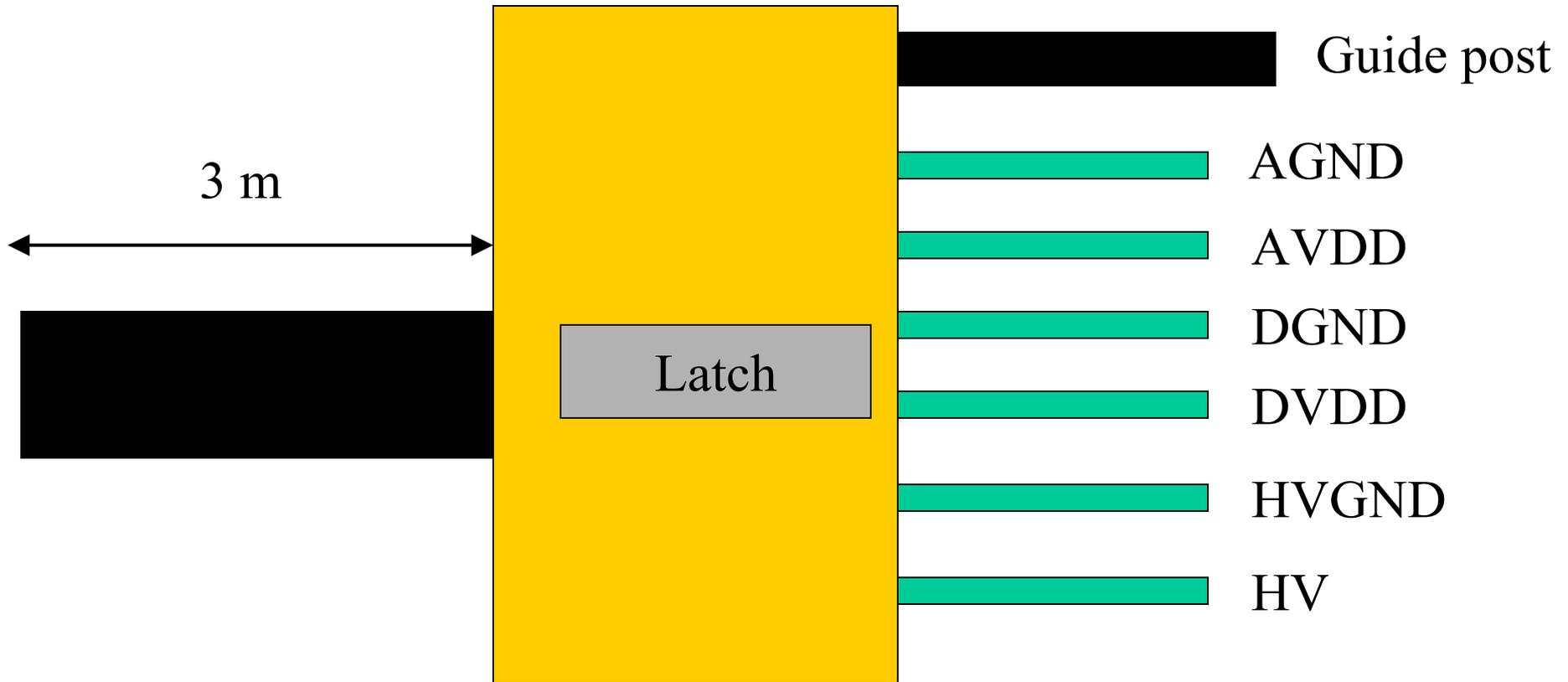
90 mm x 25 mm

HV on Adapter Card

- For L2-5 HV is part of the LV/HV connector
- For L0-1
 - 1000 V spec
 - Two options
 1. Bypass AC completely
 - Mating connectors between HV cable and HV line of twisted pair cable
 - Located not far from AC
 - + no HV connector on AC
 - Twisted Pair Cable is different for L2-5 and L0-1
 2. One separate HV connector on AC
 - Brings 3 separate HV (for 3-ch. Junction Card) to AC
 - + same design of twisted pair cable
 - Additional connector on AC for L0-1

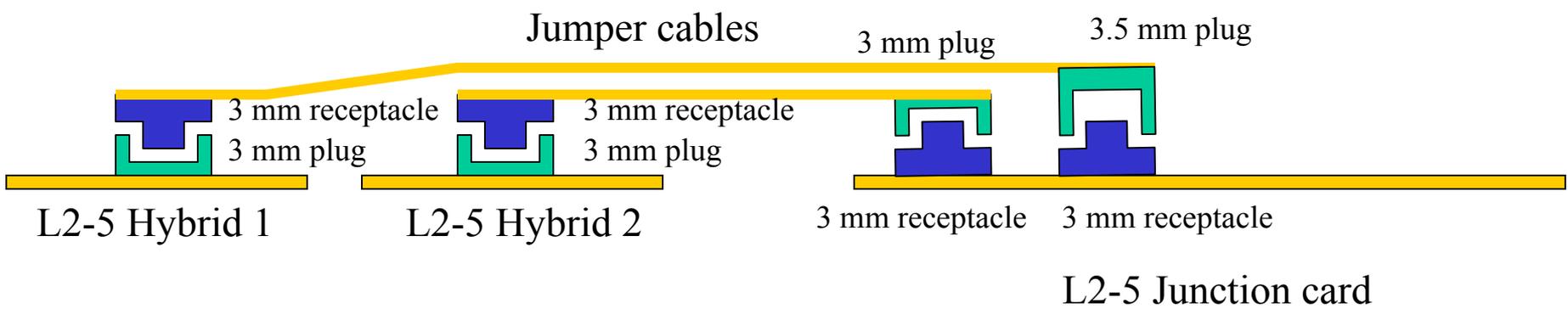
Status

- Signal twisted pair
 - AWG34 wire ordered from NE Electric Wire by CDF
 - will order 44-pin Omnetics connectors terminated with this wire
- LV/HV 6-pin Omnetics connector
 - Nothing done, need to order
- Submini coax cable – have enough for prototyping
- Junction Card – should have prototypes in April
- AVX connectors – should have soon
- Assembly
 - Have quotes from Novosibirsk INP
 - Asking local vendors for quotes
 - First prototypes in June



Twisted pair cable

Connector: Omnetics 0.05" spacing with guide post and latch



 Receptacle (not a typo!)
 Plug (not a typo!)