

Data Cables Between Sampler and Correlator.

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1.0 Standard Cable Between Sampler and Correlator.

Length: 930mm

Cable type: Spectra strip "Twist'n'Flat".

Impedance: ~100 Ohms.

1.1. Construction.

Cut cable to length, making sure that one end starts in the middle of a flat section. This optimizes cable usage.

On the end with the flat section, carefully separate the tenth conductor back about 12mm. This is to allow the other 9 conductors to fit into the 9 pin IDC connector.

Crimp on the 9 pin IDC D connector making sure the brown coloured conductor goes to pin 1 on the D connector. Install the strain relief. This should fit over all 10 conductors. Cut the tenth conductor off between the strain relief and the connector body. Prepare a second cable, as just described.

Slide a 45mm X 7mm diameter and a 45mm X 10mm piece of heat shrink tubing down each of the 5 pair cable lengths. Bring the free ends of these cables together and slide a 30mm X 14mm diameter piece of heat shrink tubing over both. Do not shrink these yet.

Connect the wires as per table 1. Slide the heat shrink tubing towards the 15 pin connector, starting with the smallest diameter shrink, into place. The smaller diameter tube should extend beyond the largest diameter tube.

Place the 15 pin connector into its shell.

Connection to the 15 pin D connector is by either by crimp pin connector or solder cup connector.

Table 1.

15 pin D	Cable #1	Cable #2
1	1,6	
2	7	
3	4	
4	5*	
5		1,6
6		7
7		4
8		5*
9	2	
10	3,8	
11	9	
12		
13		2
14		3,8
15		9

*Join with 10th (last) conductor in cable.

2.0 Cable Between Sampler Data Distributor and Correlator.

Length: 840mm

Cable type: Spectra strip "Twist'n'Flat".

Impedance: ~100 Ohms.

2.1. Construction.

See section 1.1 above.

3.0 Use.

3.1. Normal.

For normal use connect the 930mm cable between the Samplers and the Correlator.

3.1. Distributed signals.

When sampler data is to be distributed to many correlators, transfer the 15 pin connector of the 930mm cable from the Correlator to the 15 pin connector on the Sampler Signal Distributor board. Using the 840mm cables, connect the 9 pin connectors to the desired outputs on the Sampler Signal Distributor boards and the 15 pin D connectors to the appropriate Correlator input.

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