DD29 DISK CONTROLLER NODE

The DA disk controller node is the interface between the foreground channel loop and one DD29 disk drive. There may be up to 40 DA nodes in one system. The node receives subfunctions from the foreground, (see subfunction chart), translates them and generates the DSU functions, (see DSU function chart). The DA module contains the following areas:

1. Channel Control
2. I.D. Match
3. Channel subfunction decode
4. Interrupt Address
5. Status Register
6. DSU Function Decode
7. Servo Clock Generation and Control
8. DSU Tag and Buss line control
9. Main Buffer and Control
10. Secondary Buffer and Control
11. DSU Write Control
12. DSU Read Control
13. Head Address Register Storage
14. CRC Generation and Check

1. Channel Control

The channel control consists of the QA_ Boolean terms. It controls the channel loop communications and sets the controller busy flag (QAA) when a function is accepted. The busy flag remains set until the function is complete. Only one function may be active at a time.

2. I.D. Match

Each DA node has a node address (I.D.) associated with it. The I.D. is forced by the wire mat. When the foreground sends a subfunction to the nodes the first parcel contains a I.D. (2^9-2^{15}). Bits 2^9-2^{15} will be of some value of 100_8-177_8. If a DA recognizes it's device address then a I.D. match occurs and the DA latches up the subfunction.

3. Channel subfunction decode

After the node accepts a channel subfunction the QB_ Boolean terms decode it. The decode activates the proper circuitry to complete the subfunction.