

D24.1 bus: One of the simplest general purpose interconnects that is widely used. Its advantages are simplicity, a broadcast facility, and serialization (ordering) of all transaction. It only sends one signal at a time but can multicast or broadcast. Clients use it to communicate with each other or other modules.

D24.2 Crossbar-switch: Also known as a crosspoint, is like a bus but with multiple destinations and buffers to allow waiting. It can send M messages to N clients. It can connect any idle input to any idle output to support many simultaneous connections. It is used when one needs better performance than a bus offers.

D24.3 interconnection network: Consists of a set of routers connected by channels which makes use of topology, routing algorithm, and flow control. Used when more than 16 clients must be connected to provide communication between modules.

D24.4 Router: Modules that can redirect the data packets to N destinations.

D24.5 Channel: Each router is connected to a destination by a channel, the edge of a graph that represents the connection.

D24.6 Topology: The combination of routers and clients forms a grid, or a landscape of nodes. A known graph of nodes and edges.