

DAX Managed Switches

Two feature-rich L2 and L3 managed switches from DAX for the data centers

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DAX recently introduced two managed switches with fibre connectivity for data centers—DX-5712GS and DX-5050MG. While DX-5712GS is a layer L3 SNMP managed Gigabit Ethernet standalone switch, DX-5050MG is an L2 managed switch. Here is a detailed account of what all features they have and how they performed on testing.

DAX DX-5712GS

This is a good choice when you have a mixed Ethernet network. It's a layer 3 managed switch with four 10/100/1000 Base-T ports and 12 gigabit SFP (Small form factor pluggable) ports. Small Form-factor luggable is a specification for optical modular transceivers. The SFP ports are designed to be used with small form factor connectors, and they are hot-swappable and also provide physical compactness. SFP modules

support Fibre Channel, Gigabit Ethernet (GbE), and SONET applications and can provide data rates upto 5 Gbits/sec. Out of these 12 gigabit SFP ports, four ports are combo. For SFP ports, you require SFP modules, which are interfaces for fiber optic connections and it also provides support for Gigabit Ethernet applications.

The device supports up to 16K MAC address entries and supports all known L2 features like VLANs support, IGMP snooping, link aggregation, Broadcast storm protection etc. In L3 features, it provides support for OSPF routing, IP Multicast Routing, IP Redundancy and support for super and multi net-



DAX DX-5712GS



DAX DX-5050MG

Price: DAX DX-5050MG—Rs 70,380; DX-5712GS—Rs 1,20,140 (3 yr warranty for both)

Meant For: Data Centers

Key Specs: Managed Switch

Pros: QoS, easy to configure, flow control, ACL's, Link Aggregation

Cons: None

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ting. It also lets you do traffic prioritization through IP precedence and IP port priority features. In its security options, you have port security wherein you can configure a port with one or more device MAC addresses that are authorized to access the network through that port. Other than that it also supports IP and MAC ACLs, encryption for web management. It also has redundant power supply option for power fault-tolerance which ensures a reliable system.

DAX DX-5050MG

This is a Layer 2 managed Switch with forty eight 10/100 Mbps Fast Ethernet ports, two Gigabit ports for stacking/uplink and two combo G(RJ45/SFP) ports for uplink. These four Gigabit uplink ports support both Gigabit Copper as well as Gigabit Fiber. The switch supports all standard L2 features like support for VLANs, link aggregation, port mirroring, Spanning Tree Protocol etc. It also supports port trunking with up to 4 trunk groups.

It supports 8 ports in each group per stack. The switch also has auto sensing and auto negotiating capabilities >

which allow the switch to automatically sense whether the network device is running at 10 Mbps or 100 Mbps, and it then adjusts itself for optimal performance. In auto negotiating, it automatically negotiates and runs the highest supported transmission rate, whether half or full duplex.

The switch has a comprehensive set of security features for connectivity and access control. It includes ACL, RADIUS (Authentication), port-level security, and identity-based network services with 802.1x, TACACS, SSL and SSH.

Tests and results

The switches were easy to configure through their web interfaces and can also be configured through telnet. We used NetIQ Qcheck for testing the switches. The DX-5050MG gave an average throughput of 93Mbps and maximum throughput of 94Mbps in an isolated network while transferring 1000 Kbytes of payload from one end to another and response time of 1ms. Subsequently, we flooded the switch with large amounts of traffic and the throughput went down to 71 Mbps, which is less than the Netgear ProSafe FS728TS switch, which we tested earlier (August issue) and had scored 73 Mbps.

To test the CoS feature of this switch, we tried a simple test.

We connected three machines with the switch. Then, we transferred a 200 MB file from two of the machines to the third machine simultaneously. We first did it with CoS disabled, and time taken by the two machines was 49 seconds and 51 seconds respectively. We then enabled CoS and gave one of the ports priority over the other. This time, the port with the lower priority took 40 seconds to transfer the data and the port with higher priority took just 26 seconds, which was almost half the original time.

For testing the Dax DX-5712GS, we connected it with DAX 5050MG with a fibre optic cable for cascading and we created a gigabit isolated network with machines connected to gigabit ports of both the switches. The maximum throughput was 720 Mbps on transferring 1000 Kbytes of payload from one end to another. On flooding the switch with traffic, the throughput came down to 532Mbps and the avg response time was 1 Ms.

BOTTOM LINE: Considering the features and usability of DX-5712GS in data centers and its good performance, it's worth a buy, while DX-5050MG is also feature-rich and gave pretty good performance, but its price is something you would want to look into further. □