ANGORA NETWORKS

SYNAPSE ENTERPRISE SWITCHING

Angora SYNAPSE ethernet switching family, provides next generation solutions you need to support your business requirements for different technologies that request robust products with high capacity and extensive security. includes features, that makes it possible to protect your sensitive data and use the bandwidth that your applications requested, more effectively by maximizing your business-critical applications availability. Combining different high-density interfaces with fiber uplinks, it provides top class solutions on your continuously expanding work environment with unified access technologies support. SYNAPSE switches are ideal combination of ease of installation and operation, support options and features that meets your business requirements and provides a better edge to edge connected workspace.

Angora partnering with World's leading switching chipset manufacturers, offers a wide range of networking products. SYNAPSE provides different scale of features, matching each enterprise unique requirements. From industrial edges to enterprise aggregation switches, there is a SYNAPSE switch for each application.

Basic of enterprise networks starts always with layer2 connectivity, yet it is usually not enough for most applications. SYNAPSE models help with L2 connectivity with its basic models, and adds more on top of it, with higher layer features such as security, management, energy efficiency, high speed connectivity and real time services. SYNAPSE complete portfolio is ready for an end-to-end managed enterprise network.

ENTERPRISE APPLICATIONS

SYNAPSE's versatility in handling various networking roles is exceptional. It focuses on four primary pillars:

Aggregation: High-speed 10Gb connectivity to link edge devices to the network core with redundancy.

Secure Connectivity: Ensures high uptime and fast file transfers for business continuity.

Unified Communications: Manages voice, video, and data traffic intelligently on a single network.

Guest Access: Provides secure, isolated internet access for visitors using robust authentication.

PERFECT EDGE SECURITY

SYNAPSE includes a comprehensive security suite designed to protect data and prevent unauthorized access:

Access Control: Uses 802.1x, Web-based authentication, and ACLs (including time-based) to manage who can enter the network.

Threat Prevention: Features tools like **DHCP Snooping**, **ARP Inspection**, and **DoS prevention** to block active attacks.

Advanced Privacy: Utilizes Private VLANs and SSL encryption for management traffic to ensure internal data remains isolated and encrypted.

EASE OF DEPLOYMENT AND OPERATION

Designed to be user-friendly for both IT professionals and service providers, this section emphasizes:

Management Interfaces: Offers both a graphical web interface (GUI) for ease of use and a Command Line Interface (CLI) for advanced control.

Automation: Features Port Intelligence to automatically configure connected devices

Efficiency: Simplifies troubleshooting and remote management via SNMP.

ADVANCED NETWORKING

IPv6 Support: Supports "dual-stack" networking, allowing businesses to transition from IPv4 to IPv6 at their own pace without interrupting operations.

Layer 3 Routing: Provides static routing capabilities, allowing for efficient traffic movement between different segments (VLANs) without losing performance.

Carrier-Level QoS Policies: Supports priority retagging and complicated flow classification based on VLAN, MAC, source address, destination address, IP or priority to better streamline carrier's services.

SPECIFICATIONS

Feature	ANW-2712-8T4X	ANW-2712-24T4X	ANW-2712-48T4X	ANW-2712-48T6X	ANW-5713-24S8T6X
Gigabit PoE+	8	24	48	48	8T+24S
10G/GE SFP+	4	4	4	6	6
Console (RJ45)	1	1	1	1	1
Backplane (Gbps)	128	128	216	216	128
Forwarding rate (Mpps)	72	99	162	162	106
Chassis Weight (KG)	1.6	3	5.2	5.2	3.9
Dimensions (WxDxH mm)	280x180x44	441.1x207.5x44	440x280x44	440x280x44	440x280x44
No-load Power	<25W	<25W	<25W	<25W	<25W
Full-load (w/o PoE)	<35W	<35W	<48W	<48W	<48W
Power Supply	160W AC	410W AC	450W AC 800W DC	450W AC 800W DC	450W AC
PoE Budget	125W	370W	370W (AC) 740W (DC)	370W (AC) 740W (DC)	370W (AC)
Fan Number	0	2	2	2	2
Voltage	220V AC 48V DC 6kV Surge Protect	220V AC 48V DC 6kV Surge Protect	220V AC 48V DC 6kV Surge Protect	220V AC 48V DC 6kV Surge Protect	220V AC 48V DC 6kV Surge Protect
Operating Temperature	-10/+60	-10/+60	-10/+60	-10/+60	-10/+60
MTBF	>1.000.000 hours	>1.000.000 hours	>1.000.000 hours	>1.000.000 hours	>1.000.000 hours

VLAN; 4K Active VLAN, QinQ & Selective QinQ, GVRP, Private VLAN, Voice VLAN
Spanning Tree; 802.1D (STP), 802.1W (RSTP) and 802.1S (MSTP), BPDU guard, root guard and loopback guard
Multicast; IGMP v1/v2/v3, IGMP Snooping, IGMP Fast Leave, MVR, IGMPFilter, 256 IGMP Group

IP; Static route, RIP, OSPF, IPv4/v6 dual stack
IPV6; ICMPv6, DHCPv6, ACLv6 and IPv6 neighbor discovery,PathMTU discovery, MLD V1/2,MLD snooping, IPv6 Static Routing, RIPng, OSPFv3
DHCP; server/relay/client, snooping/option82
Management, Console, Telnet, SSH v1/2, HTTP, HTTPS,SNMP v1/v2/v3, RMON, TFTP, FTP, SFTP, NTP, ZTP, SPAN, RSPAN, Dying gasp, syslog

Security
Port isolation, Port security, and "IP+MAC+port" binding, MAC sticky, DAI & IP source guard, PPPoE+, IEEE 802.1x, Radius andTACACS+ 1024 L2/L3/L4 ACL flow identification and filtrationAnti-attack from DDoS, TCP's SYN Flood, UDP Flood, Broadcast/multicast/unknown unicast storm-control, MD5, SHA-256, RSA-1024, AES256, etc.

Reliability Static/LACP link aggregation (8 groups, 8 members), Interface backup, Jumbo Frame (13K), EAPS and ERPS, ISSU uninterrupted system
Upgrade,Intelligent stacking up to 16-units per stack, VRRP, UDLD
QoS, CAR, HQoS, COS/DSCP/TOS based, QoS, 802.1P/DSCP, priority re-labeling, SP, WRR, and "SP+WRR", Tail-Drop, WRED,flow monitoring and

ORDERING INFORMATION

Product Model	Desciption
ANW-2712-8T4X	8-Port Gigabit RJ45 + 4-Port 10G SFP+ L3-lite Stackable Managed Switch (Single AC-220V power supply, 1U, 19-inch rack-mounted installation)
ANW-2712-24T4X	8-Port Gigabit RJ45 + 4-Port 10G SFP+ L3-lite Stackable Managed Switch (Dual AC-220V power supply, 1U, 19-inch rack-mounted installation)
ANW-2712-48T4X	8-Port Gigabit RJ45 + 4-Port 10G SFP+ L3-lite Stackable Managed Switch (Dual AC-220V power supply, 1U, 19-inch rack-mounted installation)
ANW-2712-48T6X	8-Port Gigabit RJ45 + 4-Port 10G SFP+ L3-lite Stackable Managed Switch (Dual AC-220V power supply, 1U, 19-inch rack-mounted installation)
ANW-5713-24S8T6X	24xSFP + 8xGigabit RJ45 + 6x10G SFP+ L3 Stackable Managed Switch (Dual AC-220V power supply, 1U, 19-inch rack-mounted installation)
ANW-SFP-1G-SX	1Gbps SX SFP Module, LC Connector, 550m Range, 850nm
ANW-SFP-1G-LX	1Gbps LX SFP Module, LC Connector, 10km Range, 1310nm
ANW-SFP-10G-SR	10Gbps SR SFP Module, LC Connector, 550m Range, 850nm
ANW-SFP-10G-LR	10Gbps LR SFP Module, LC Connector, 10km Range, 1310nm