



ALLNET VDSL2 DSLAM/Switch Master 16-Port

16 Port VDSL2 Master Switch for leased lines via 2-wire connections up to a length of 2500 meters and a bandwidth of 100 Mbit / s (depending on length)

The ALLNET ALL12616M is a VDSL2 IP DSLAM, which provides up to 16x 100 Mbps network connection via a 2-wire copper cable. Thus, an existing 2-wire cabling in the building for high-performance data services such as Internet access, video-on-demand, IPTV, Voice over IP, videoconferencing, telemedicine and many more are used.

If the number of participants increases the net, two ALL12616M concerning integrated uplink Gigabit Ethernet interface can be connected together. Alternatively, multiple ALL12616M can be combined via a LAN switch, which further increases the port number.

The ALL12616M VDSL2 Master Switch is an ideal solution for providing cost-effective, high-performance broadband / multimedia networks for MTUs (Multi Tenant Units) and MDUs (Multi Dwelling Units) such as hotels, schools, hospitals, etc.



Key Features und Vorteile:

The 100 Mbit / s symmetrically up to eight 2-wire lines:

The ALL12616M supporting a symmetrical VDSL2 bandwidth of up to 100 Mbit / s, when the cable length does not exceed 300 meters. With lower bandwidth cable lengths of up to 2600 meters to be bridged.

Jumbo-Frames bis zu 9 Kilobyte:

In Ethernet networks jumbo frames were originally data packets with more than 1500 bytes of payload. However, each data packet has to be processed individually by the network hardware and software and are checked for errors. Due to the increased frame size of 9000 bytes, the same amount of data are transmitted with less effort. This reduces CPU utilization and increases throughput.

IEEE 802.1q Q-in-Q VLAN für Leistung & Sicherheit:

The VLAN feature in ALL12616M makes data communications quickly and safely. VLAN is used to isolate traffic between different users and thus to ensure better security. Limiting the broadcast traffic within the same VLAN broadcast domain improves performance and guarantees certain bandwidth for each client.

IEEE 802.1x:

This port-based Network Access Control function is provided for secure access to wireless network clients and their authentication available when the ALL12616M is used as a central base for the connection of wireless LAN access points.

Spanning Tree:

For mission critical environments with multiple ALL12616M redundandete Backup can be configured paths, so that the traffic in case of failure on a fail-over switch is distributing. Thus, a function of the network is guaranteed.

IEEE 802.1p QoS (COS) mit vier Prioritäts-Queues:

The QoS (Quality of Service) function has four internal queues with which the data packets are different classifications are assigned. High priority packets such as video and voice data is transported with less delay and lower latency when packets with low priority. This is essential for the video and voice quality.

IGMP Snooping:

IGMP Snooping supports up to 256 multicast groups for VOD (video on demand) and video conferencing and Internet games application.

HTTPS (SSL) Web Access:

Https (HTTPS) is a combination of the Hypertext Transfer Protocol with the SSL protocol to provide encrypted communication and secure identification of network servers. HTTPS connections are often used for payment transactions on the World Wide Web and for sensitive transactions in corporate information systems.



SNMP MIB Support: SNMP v1/v2c/v3 Management-und Trap-Funktion:

Support MIB tables: MIB-II (RFC 1213), Bridge MIB (RFC 1493), Ethernet-like MIB (RFC 1643 and RFC 2665), private MIB, USM-MIB (RFC 2574), VACM-MIB (RFC 2575) and RMON MIB 1, 2, 3, 9 groups (RFC 1757 and RFC 2819)

Broadcast/Multicast/Unknown-Unicast Storm Control:

Up Broadcast / Multicast / Unicast Unknown to limit communication in the network, broadcast / multicast storm control is used. Limits can be set for each port.

ACL (Access Control List):

As with firewalls, are ACLs safety regulations and standards for a network. Rules are stored as: „where participants must has access to which ports and which network domain access control lists can be configured so that both inbound as well as outbound traffic is controlled..

Link Layer Discovery Protocol (LLDP):

This is a manufacturer-independent protocol to enter into the network devices their identity, their skills and neighbors in an IEEE 802 LAN known.

Upstream Power Back-Off (UPBO):

Through the power back-off function is lowered at different lengths of the signal level to the minimum strictly necessary, resulting in lower interference and lower power.

Downstream Power Back Off (DPBO):

DPBO is a technology which prevents the crosstalk of the signal to other lines. This is especially necessary if the pipe network is used by several operators. Without DPBO the DSL signal may interfere with the terminals of other operators.



Technische Daten:

Functioning:	DSLAM - Digital Subscriber Line Access Multiplexer
DSL standards:	ITU-T G993.2 VDSL2, G993.1 VDSL, G997.1, G994.1 G.hs
Band profiles:	8a, 8b, 8c, 8d, 12a, 12b, 17a und 30a
Bandplans:	997 und 998
VDSL2 bandwidth:	Up to 100 Mbit symmetrical with cable lengths of up to 0.3 km
xDSL ports:	16x RJ45
Ethernet ports:	2x Dual Port RJ45 10/100/1000Mbps / Gigabit SFP-Slot (Mini GBIC), 1 x RS-232 console port
Cascadable:	Uplink, SFP
Power supply:	85 - 265VAC, internal power supply redundant supply via DC connector
Power consumption:	37 Watt max
Management Features:	<ul style="list-style-type: none"> -ADSL2+ & VDSL2 Profil-Management -SELT(Single-Ended Loop Testing) -DELT(Double-Ended Loop Testing) -INP(Impulse Noise Protection) -Intermediate Leave -Virtual Noise -Echo Cancellation -UPBO(Upstream PBO) -DPBO(Downstream PBO) -IPv4 Multicasting -IGMP v1, v2 und v3 Snooping -512 Multicast-Gruppen -9k Jumbo Frames -Bandwidth management per port -LACP IEEE-802.3ad Port Trunking (link aggregation) -Quality of Service: bis zu 4 Queues -IEEE 802.1d STP / IEEE 802.1w RSTP & IEEE-802.1s MSTP -MAC Filtering -802.1x portbasierte Network Access Control -Port Mirroring (Sniffer) -Broadcast Storm Filtering -Traffic Storm Control -Remote Syslog -HTTPS (SSL) Web Management and Telnet -SNMP v1/v2/v3 RFC-1493 bridge MIBs, RFC-1643 Ethernet MIB, RFC-1213 MIBII -RMON groups 1(Statistics), 2(Alarm), 3(Event), 9(History) -HTTP/TFTP für Firmware Upgrade -In-Band/Out-of-Band Management -L2/L3/4 Access Control List(ACL) -DHCP Client und Relay & Option 82 -LLDP(Link Layer Discovery Protocol) -Überspannungsschutz und Splitter onboard



Technische Daten:

Ethernet standards:	IEEE802.3 10BaseT IEEE802.3u 100BaseTX IEEE802.ab 1000BaseT IEEE802.3z 1000BaseSX/LX IEEE802.3x full-duplex operation and flow control IEEE802.1x Port-based Network Access Control IEEE802.1Q VLAN mit Q-in-Q IEEE802.3ad Link Aggregation IEEE802.1d Spanning Tree Protocol IEEE802.1p Class of Service, Priority Operation
Housing:	19 "1U metal housing, mounting angle enclosed
Dimensions:	Width / depth / height: 443 x 417 x 44 mm
Surroundings:	Weight: 5.6 kg
Approvals:	Operating temperature: 0 ~ 50 ° C
	Humidity operating: 10% ~ 90% (non-condensing)
	Temperature Storage: -20 ~ 70 ° C
	Humidity Storage: 10% ~ 90% (non-condensing)