

# When ATEN KVM Over IP Extender (KE Series) deploys on Netgear Switch

General Requirement on Network Switch:

We recommend 1000Mbps L2/L3 Gigabit Ethernet switches (wire speeds, non-blocking with 1Gbps/1.5Mpps performance per port) for KE/VE Series devices installed on different LAN segments. 10/100Mbps switches are not recommend, for it might cause poor performance.

Switch Specifications

The following specifications are recommended when choosing a layer 2 or layer 3 switches:

- 1000Mbps Gigabit Ethernet switches (1000Mbps or faster Ethernet ports)
- High bandwidth between switches, if possible using Fibre Channel
- Layer 3 switches that efficiently processes IGMP queries
- IGMP Snooping v2 or v3
- Flow Control Functions
- Throughput of: Full Duplex, 1Gbps up- and down- stream speeds per port
- Performance of their most onerous tasks (e.g. IGMP snooping) with multiple dedicated processors (ASICs)
- Use the same switch make and model throughout each subnet
- The maximum number of simultaneous 'snoopable groups' the switch can handle meets or exceeds the number of KE transmitters that will be used to create Channel groups
- In multi point configurations, the IGMP and Flow Control function of your network switches must be enabled to avoid the deterioration of data throughput.
- To ensure functionality, using a L2/L3 network switch which supports IGMP queries is necessary.

Many of our customers deploy ATEN KE Series on Netgear switches. We enlist Netgear GS724T configuration screen shots which are suitable for KE series for your reference:

Jumbo Frame setting:

Switching → Ports → Port Configuration → Maximum Frame size set to 9216.

(Please note Jumbo frame is no need to set for KE.)

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GS724T  
24 Port Gigabit Smart Switch

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Ports | LAG | VLAN | Auto-VoIP | STP | Multicast | MVR | Address Table

Port Configuration

Port Configuration

LAGS All

Port	Description	Port Type	Admin Mode	Port Speed	Physical Status	Link Status	Link Trap	Maximum Frame Size (1518 to 9216)	MAC Address	Port List Bit Offset	ifindex
<input type="checkbox"/>	g1		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	1	1
<input type="checkbox"/>	g2		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	2	2
<input type="checkbox"/>	g3		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	3	3
<input type="checkbox"/>	g4		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	4	4
<input type="checkbox"/>	g5		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	5	5
<input type="checkbox"/>	g7		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	7	7
<input type="checkbox"/>	g8		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	8	8
<input type="checkbox"/>	g9		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	9	9
<input type="checkbox"/>	g10		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	10	10
<input type="checkbox"/>	g11		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	11	11
<input type="checkbox"/>	g12		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	12	12
<input type="checkbox"/>	g13		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	13	13
<input type="checkbox"/>	g14		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	14	14
<input type="checkbox"/>	g15		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	15	15
<input type="checkbox"/>	g16		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	16	16
<input type="checkbox"/>	g17		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	17	17
<input type="checkbox"/>	g18		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	18	18
<input type="checkbox"/>	g19		Enable	Auto		Link Down	Enable	9216	14:59:CO:58:82:9B	19	19
<input type="checkbox"/>	g20		Enable	Auto	1000 Mbps	Link Up	Enable	9216	14:59:CO:58:82:9B	20	20

## IGMP

Switching → Multicast → MFDB Table:

Please note you do not and cannot enter or add an entry to the table. Once you connect KE/VE to the switch and reboot the switch, you should be able to see them.

Please enable admin mode first:

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MFDB

Auto-Video

IGMP Snooping

IGMP Snooping Configuration

IGMP Snooping Interface Configuration

IGMP Snooping Table

IGMP Snooping VLAN Configuration

Multicast Router Configuration

Multicast Router VLAN Configuration

IGMP Snooping Querier

MLD Snooping

IGMP Snooping Interface Configuration

LAGS All

Interface	Admin Mode	Host Timeout	Max Response Time	MRouter Timeout	Fast Leave Admin Mode	
<input type="checkbox"/>	g1	Enable	260	10	0	Enable
<input type="checkbox"/>	g2	Enable	260	10	0	Enable
<input type="checkbox"/>	g3	Enable	260	10	0	Enable
<input type="checkbox"/>	g4	Enable	260	10	0	Enable
<input type="checkbox"/>	g5	Enable	260	10	0	Enable
<input type="checkbox"/>	g6	Enable	260	10	0	Enable
<input type="checkbox"/>	g7	Enable	260	10	0	Enable
<input type="checkbox"/>	g8	Enable	260	10	0	Enable
<input type="checkbox"/>	g9	Enable	260	10	0	Enable
<input type="checkbox"/>	g10	Enable	260	10	0	Enable
<input type="checkbox"/>	g11	Enable	260	10	0	Enable
<input type="checkbox"/>	g12	Enable	260	10	0	Enable
<input type="checkbox"/>	g13	Enable	260	10	0	Enable
<input type="checkbox"/>	g14	Enable	260	10	0	Enable
<input type="checkbox"/>	g15	Enable	260	10	0	Enable
<input type="checkbox"/>	g16	Enable	260	10	0	Enable
<input type="checkbox"/>	g17	Enable	260	10	0	Enable
<input type="checkbox"/>	g18	Enable	260	10	0	Enable
<input type="checkbox"/>	g19	Enable	260	10	0	Enable
<input type="checkbox"/>	g20	Enable	260	10	0	Enable

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MFDB

MFDB Table

Search By MAC Address

MAC Address	VLAN ID	Component	Type	Description	Interfaces	Forwarding Interfaces
01:00:5e:0a:0a:0a	1	IGMP	DYNAMIC	Network Assist	g6	g6
01:00:5e:28:00:3d	1	IGMP	DYNAMIC	Network Assist	g12 - g14, g20	g12 - g14, g20
01:00:5e:60:00:00	1	IGMP	DYNAMIC	Network Assist	g18, g20	g18, g20
01:00:5e:68:00:3d	1	IGMP	DYNAMIC	Network Assist	g12 - g14, g20	g12 - g14, g20
01:00:5e:7fff:fa	1	IGMP	DYNAMIC	Network Assist	g6	g6

IGMP Snooping:

Switching → Multicast → IGMP Snooping → Configuration > enable Snooping status, IP header and Block unknown multicast address:

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Multicast Router VLAN Configuration  
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MLD Snooping

**IGMP Snooping Configuration**

IGMP Snooping Configuration

IGMP Snooping Status  Disable  Enable

Validate IGMP IP header  Disable  Enable

Block Unknown Multicast Address  Disable  Enable

IGMP Statistics

Multicast Control Frame Count 1006

Interfaces Enabled for IGMP Snooping g1 - g25

VLAN IDs Enabled for IGMP Snooping

1

VLAN IDs Enabled for IGMP Snooping Querier

1

Enable VLAN:

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**IGMP Snooping VLAN Configuration**

IGMP Snooping VLAN Configuration

VLAN ID	Fast Leave Admin Mode	Host Timeout	Maximum Response Time	MRouter Timeout	Query Mode	Query Interval (1 to 1800 secs)
1	Enable	250	10	0	Enable	60

Queries enable:

Switching → Multicast → IGMP Snooping Querier Configuration > Enable

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**Querier Configuration**

Querier Configuration

Querier Admin Mode  Disable  Enable

Snooping Querier Address 192.168.0.165

IGMP Version 2 (1 to 2)

Query Interval (secs) 60 (1 to 1800)

Querier Expiry Interval (secs) 125 (60 to 300)

Flow Control:

Switching → Ports → Flow Control > Enable

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Port Configuration  
Flow Control

**Flow Control**

Global Flow Control (IEEE 802.3x) Mode  Disable  Enable

Note:

Factory default reset the switch:

Please insert a straightened paper clip or a similar device into the hole of the Factory Default button and hold for around 10 seconds and release when you see all LEDs are on.