



See every bit, byte, and packet®

Product Catalog



Made, tested & supported in the U.S.A.

Foundation of Visibility

Starts with Seeing Every Bit, Byte, and Packet®

Garland Technology is committed to helping network teams increase the value of their networks and data centers by offering the industry's most reliable and economical test access solutions and packet broker options.

We Were The First

Designing the industry's first bypass test access point (TAP) is just one of the many benchmarks for success, and since 2011, Garland Technology has accelerated research, development, service, and commitment to product evolution to become the leader for the industry's most reliable TAP solutions.

Because Garland Technology remains 100% TAP focused, with all products made in the USA, both NetOp and SecOp teams gain complete and reliable network visibility; whether for compliance, corporate initiatives, or breach/threats.

Garland Technology Network TAPs:

- Provide complete network visibility by passing all live wire data
- Guarantee 100% uptime for active, inline security tools
- Ensure no dropped packets for out-of-band tools
- Industry's most reliable TAP, provide zero-fail results

The Garland Leadership



Chris Bihary, CEO/Co-Founder

Chris Bihary has been in the network performance industry for over 20 years. Bihary has established collaborative partnerships with technology companies to complement product performance through the integration of network test access points.



Jerry Dillard, CTO/Co-Founder

Jerry Dillard leverages two decades in design and engineering to ensure maximum performance within today's network environments. Dillard, as the inventor of the Bypass Network Test Access Point (TAP), has secured his legacy as he continues to provide network solutions for data centers worldwide.

Our Commitment to Quality

Garland Technology's focus will remain centered around reliability while delivering the greatest economical solutions for today's network teams and the most complex and extensive data center environments worldwide.

Tested and Certified The Garland Technology quality stamp indicates each product is tested and validated with live data before shipping from our factory. Made, tested & certified in the U.S.A.



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Garland Technology | Products

Garland Technology ensures complete network visibility by developing the industry's most reliable test access point (TAP) solutions for enterprise, service providers, and government agencies worldwide. Garland Technology delivers a full platform of network access products including Passive Fiber TAPs, Copper TAPs, Aggregator and Regeneration TAPs, Filtering TAPs, Bypass TAP, as well as Advanced Aggregators and Network Packet Broker devices.



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Passive Fiber Network TAPs Page 4

Fiber network TAPs in network speeds of 1G, 10G, 40G and 100G. Fiber Network TAPs are passive, purpose-built hardware devices that make a 100% copy of your network's data without affecting network traffic for network monitoring.



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Copper Network TAPs Page 11

Copper network TAPs in network speeds of 10/100M or 10M/100M/1000M (1G). Copper TAPs are purpose-built hardware devices used for out-of-band monitoring tools and make a 100% copy of your network's data for network monitoring.



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Aggregator Network TAPs Page 15

Aggregator/regeneration network TAPs are used to capture 100% full duplex network traffic and are available in copper 10/100/1000M (1G) and fiber 1G and 10G, single or multi-mode. Aggregation TAPs support breakout and regeneration/SPAN modes for network monitoring.



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Filtering Network TAPs Page 21

Filtering network TAPs, available in 1G, allow you to filter out the packets and traffic that is not needed by the tool to perform its function. Filtering ensures that monitoring ports do not become oversubscribed with unneeded data.



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Bypass Network TAPs Page 24

Bypass network TAPs with failsafe for inline security tools and monitors the appliances' health are available in 100/1000M/1G and 10G. A bypass TAP supports breakout, aggregation, regeneration/SPAN and bypass modes, allowing you to optimize the lifecycle of your appliance.



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Virtual Network TAPs Page 30

Garland's vTAP is a software solution to address these challenges by providing complete visibility for east-west and inter-VM traffic.



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Advanced Aggregators Page 31

Advanced Aggregators are devices designed to increase efficiency and port utilization in network speeds of 1G, 10G, 25G, 40G and 100G. This is achieved by aggregating and pre-filtering traffic prior to sending out to Network Packet Broker's for advanced filtering or taking the place of network packet brokers in applications where only L2-L4 filtering is required.



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Network Packet Brokers (NPBs) Page 34

Purpose Built Network Packet Brokers, available in 1G and 10G, connect multiple inline security and out-of-band monitoring appliances and features that include filtering, aggregating, regenerating, and load balancing.



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Pluggables Transceivers and Cables Page 37

The most efficient network infrastructure is one that allows traffic to flow seamlessly from end to end and allows for 100% visibility and access where and when you need it.

1

Passive Fiber

Network TAPs

Garland Technology's Passive Fiber Test Access Points (TAPs) are high-density, non-powered devices that makes a full copy of any network's data without affecting network traffic, providing visibility and the high-performance monitoring solution required to efficiently manage even the most complex network infrastructure.

Garland Technology offers fiber network TAPs in network speeds of 1G, 10G, 40G and 100G.

- 100% network visibility
- 100% secure and invisible; no IP address; no Mac address; cannot be hacked
- Fiber TAPs in single-mode for 1G, 10G, 40G and 100G; or multi-mode for 1G and 10G
- Passes physical layer errors
- Portable, plug & play units or 1U chassis systems

APPLICATIONS

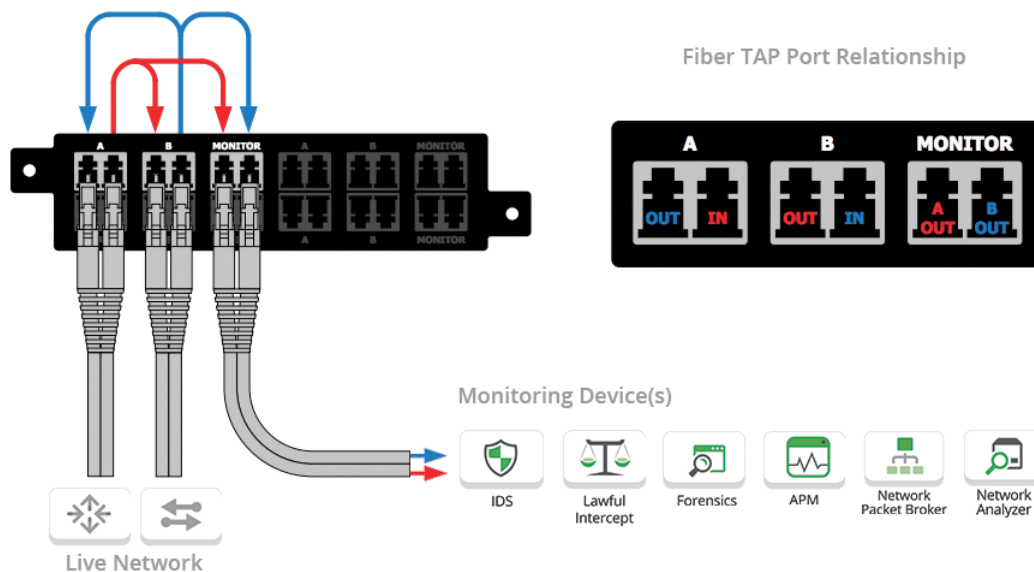
- Network & Application Monitoring
- Network & Application Analysis
- Network & Application Performance

+ Tap "Breakout" Mode is ideal when utilization is very high and packet loss is not an option.

RACK MOUNT



NETWORK FLOW



Single-mode Passive Fiber Network TAPs

1G/10G/40G/100G | High Density



OS2704

- 1U rack mount kit holds up to 4 modules, each module can have 1, 2, 3, or 4 TAPs
- 1U chassis holds 28 or 56 TAPs, highest density in industry
- Single-mode with LC Connectors
- Supports long range and extended range single-mode environments.
- Split ratios available in 50/50; 60/40; 70/30; 80/20 and 90/10
- Portable, Plug & Play easy installation
- No power source required
- Tested and Certified



RMP-1U



1U Chassis with 28 or 56 TAPs

Model #	Network Speed	Ports	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/Mode
RMP-1U			1U Rack Mount Kit - Hold up to 4 Modules, each Module can have 1, 2, 3 or 4 TAPs				
OS1501	Up to 100G		1	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS1701	Up to 100G		1	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS2501	Up to 100G		1	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS2701	Up to 100G		1	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS1502	Up to 100G		2	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS1702	Up to 100G		2	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS2502	Up to 100G		2	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS2702	Up to 100G		2	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS1503	Up to 100G		3	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS1703	Up to 100G		3	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS2503	Up to 100G		3	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS2703	Up to 100G		3	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS1504	Up to 100G		4	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS1704	Up to 100G		4	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-Mode Fiber
OS2504	Up to 100G		4	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS2704	Up to 100G		4	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-Mode Fiber
OS15028	Up to 100G	Chassis 1U	28	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-mode Fiber
OS17028	Up to 100G	Chassis 1U	28	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-mode Fiber
OS25028	Up to 100G	Chassis 1U	28	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-mode Fiber
OS27028	Up to 100G	Chassis 1U	28	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-mode Fiber
OS15056	Up to 100G	Chassis 1U	56	50/50	1310/1550nm	Fiber-OS1	Fiber-LC Single-mode Fiber
OS17056	Up to 100G	Chassis 1U	56	70/30	1310/1550nm	Fiber-OS1	Fiber-LC Single-mode Fiber
OS25056	Up to 100G	Chassis 1U	56	50/50	1310/1550nm	Fiber-OS2	Fiber-LC Single-mode Fiber
OS27056	Up to 100G	Chassis 1U	56	70/30	1310/1550nm	Fiber-OS2	Fiber-LC Single-mode Fiber

*56 1U Fiber TAPs are populated front and back. *Custom split ratios are available in 60/40, 80/20, 90/10

Multi-mode Passive Fiber Network TAPs

1G/10G | High Density

- 1U rack mount kit holds up to 4 modules, each module can have 1, 2, 3, or 4 TAPs
- 1U chassis holds 28 or 56 TAPs, highest density in industry
- Multi-mode fiber with LC Connectors
- New Prism based technology that reduces bit errors on OM3 + OM4/OM5 applications, providing 100% utilization
- Split ratios available in 50/50; 60/40; 70/30; 80/20 and 90/10
- No power source required



OM4704



RMP-1U



1U Chassis with 28 or 56 TAPs

Model #	Network Speed	Ports	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/Mode
RMP-1U	1U Rack Mount Kit - Hold up to 4 Modules, each Module can have 1, 2, 3 or 4 TAPs						
OM1501	Up to 10G		1	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM1701	Up to 10G		1	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM3501	Up to 10G		1	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-Mode Fiber
OM4501	Up to 10G		1	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4701	Up to 10G		1	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM1502	Up to 10G		2	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM1702	Up to 10G		2	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM3502	Up to 10G		2	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-Mode Fiber
OM4502	Up to 10G		2	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4702	Up to 10G		2	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM1503	Up to 10G		3	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM1703	Up to 10G		3	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM3503	Up to 10G		3	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-Mode Fiber
OM4503	Up to 10G		3	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4703	Up to 10G		3	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM1504	Up to 10G		4	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM1704	Up to 10G		4	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-Mode Fiber
OM3504	Up to 10G		4	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-Mode Fiber
OM4504	Up to 10G		4	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4704	Up to 10G		4	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM15028	Up to 10G	Chassis 1U	28	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-mode Fiber
OM17028	Up to 10G	Chassis 1U	28	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-mode Fiber
OM35028	Up to 10G	Chassis 1U	28	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-mode Fiber
OM45028	Up to 10G	Chassis 1U	28	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM47028	Up to 10G	Chassis 1U	28	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM15056	Up to 10G	Chassis 1U	56	50/50	850/1300nm	Fiber-OM1	Fiber-LC Multi-mode Fiber
OM17056	Up to 10G	Chassis 1U	56	70/30	850/1300nm	Fiber-OM1	Fiber-LC Multi-mode Fiber
OM35056	Up to 10G	Chassis 1U	56	50/50	850/1300nm	Fiber-OM3	Fiber-LC Multi-mode Fiber
OM45056	Up to 10G	Chassis 1U	56	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM47056	Up to 10G	Chassis 1U	56	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber

*56 1U Fiber TAPs are populated front and back. *Custom split ratios are available in 50/50, 60/40, 70/30, 80/20, 90/10

BiDi Passive Fiber Network TAPs

40G-SR-BiDi | Cisco BiDirectional Optical Technology

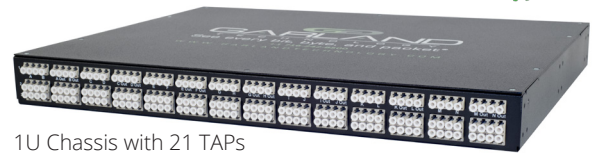


OM4502

- Supports Cisco BiDirectional optical technology
- Unique design provides flexibility to TAP multi-mode OM3/OM4/OM5 fiber types
- New Prism based technology that reduces bit errors on OM3 + OM4 applications, providing 100% utilization.
- 1U rack mount kit holds up to 4 modules, each module can have 1, 2, or 3 portable TAPs - no power source required
- Exclusive high density 1U chassis with 21 TAPs
- Tested and Certified



RMP-1U



1U Chassis with 21 TAPs

Model #	Network Speed	Ports	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/Mode
RMP-1U			1U Rack Mount Kit - Hold up to 4 Modules, each Module can have 1, 2, 3 or 4 TAPs				
OM4501-40GSRBiDi	40G		1	50/50	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM4502-40GSRBiDi	40G		2	50/50	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM4503-40GSRBiDi	40G		3	50/50	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM45021-40GSRBiDi	40G		21	50/50	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM4701-40GSRBiDi	40G		1	70/30	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM4702-40GSRBiDi	40G		2	70/30	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM4703-40GSRBiDi	40G		3	70/30	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OM47021-40GSRBiDi	40G		21	70/30	800/950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-mode Fiber
OS2502-BiDi	1G/10G		2	50/50	1270~1350nm/ 1450~1530nm/ 1510~1590nm	Fiber-OS2	Fiber-LC Single-Mode
OS2504-BiDi	1G/10G		4	50/50	1270~1350nm/ 1450~1530nm/ 1510~1590nm	Fiber-OS2	Fiber-LC Single-Mode
OS2506-BiDi	1G/10G		6	50/50	1270~1350nm/ 1450~1530nm/ 1510~1590nm	Fiber-OS2	Fiber-LC Single-Mode



MPO/MTP® Multi-mode Passive Fiber Network TAPs

40G/100G-SR4 or 100G-SR10
















OM4501

- Multi-mode fiber in MTP-12 and MTP-24
- 100G-SR4 can be configured with 4 Channels of 25G in each direction
- New Prism based technology that reduces bit errors on OM3 + OM4/OM5 applications, providing 100% utilization.
- MPO/MTP® brand connectors for lowest dB loss
- 1U rack mount kit holds up to 4 modules, each module can have 1, 2 or 3 portable TAPs
- Portable, Plug & Play easy installation
- No power source required
- Tested and Certified



RMP-1U

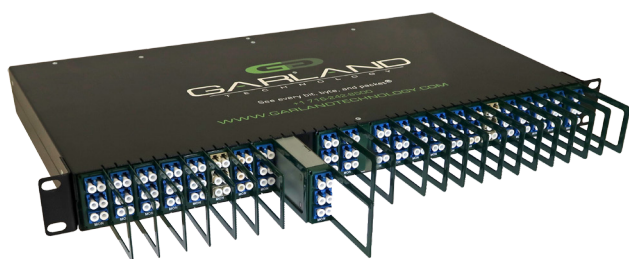


Model #	Network Speed	Ports	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/Mode
RMP-1U	 1U Rack Mount Kit - Hold up to 4 Modules, each Module can have 1, 2, 3 or 4 TAPs						
OM4501-SR4B	40G/100G		1	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4702-SR4B	40G/100G		2	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4503-SR4B	40G/100G		3	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4701-SR4B	40G/100G		1	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4502-SR4B	40G/100G		2	50/50	850nm	Fiber-OM3/OM4/OM54	MTP-12 Multi-Mode Fiber
OM4703-SR4B	40G/100G		3	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4501-100GSR10A	100G		1	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber
OM4702-100GSR10A	100G		2	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber
OM4503-100GSR10A	100G		3	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber
OM4701-100GSR10A	100G		1	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber
OM4502-100GSR10A	100G		2	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber
OM4703-100GSR10A	100G		3	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-mode Fiber

*Split ratios available in 50/50; 60/40; 70/30; 80/20 and 90/10

Modular Chassis Passive Fiber Network TAPs

1G/10G/40G/100G


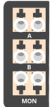






- Customize TAPs by media and/or speeds
- Change TAP modules on-the-fly or in the future
- Accommodates 16 to 24 modules, depending on configuration (24 LC TAP Modules, 16 MPO/MTP® TAP Modules, 16 BiDi LC TAP Modules)
- Supports Single-mode: OS1 and Multi-mode: OM3/OM4 media for long range and short range environments*
- Supports Cisco BiDirectional optical technology
- New prism based technology reduces bit errors on OM3/OM4/OM5 applications, providing 100% utilization
- No power source required
- Tested and Certified



1U Modular Chassis



Chassis options							
Model #	Network Speed	Ports	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/Mode
FMC-1U	Fiber Modular Chassis						
OS2501M	Up to 100G		1	50/50	1310/1550nm	Fiber-OS1/OS2	Fiber-LC Single-Mode Fiber
OS2701M	Up to 100G		1	70/30	1310/1550nm	Fiber-OS1/OS2	Fiber-LC Single-Mode Fiber
OM1501M	Up to 10G		1	50/50	850/1300nm	Fiber-OM1/OM2	Fiber-LC Multi-Mode Fiber
OM1701M	Up to 10G		1	70/30	850/1300nm	Fiber-OM1/OM2	Fiber-LC Multi-Mode Fiber
OM4501M	Up to 10G		1	50/50	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4701M	Up to 10G		1	70/30	850nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4501-40GSR4BiDiM	Up to 40G		1	50/50	800-950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OM4701-40GSR4BiDiM	Up to 40G		1	70/30	800-950nm	Fiber-OM3/OM4/OM5	Fiber-LC Multi-Mode Fiber
OS2502-BiDiM	1G/10G		2	50/50	1270~1350nm/ 1450~1530nm/ 1510~1590nm	Fiber-OS2	Fiber-LC Single-Mode
OM4501-SR4BM	Up to 40G/100G		1	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4701-SR4BM	Up to 40G/100G		1	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-12 Multi-Mode Fiber
OM4501-100GSR10AM	Up to 100G		1	50/50	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-Mode Fiber
OM4701-100GSR10AM	Up to 100G		1	70/30	850nm	Fiber-OM3/OM4/OM5	MTP-24 Multi-Mode Fiber
OS23321X3M	1G/10Gbps		2	33.3/ 33.3/ 33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber

*OS2 Fiber supports OS1 & OS2; OM1 Fiber supports OM1 & OM2; OM5 Fiber supports OM3 & OM4

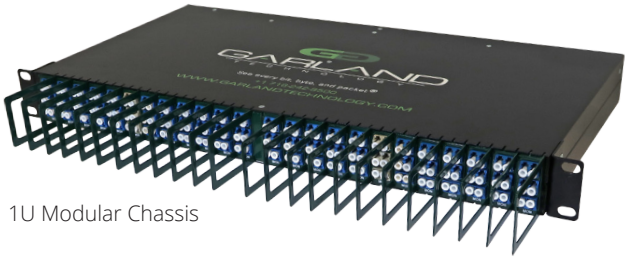
Passive Replication Network TAPs

1G/10G | Splits one single-mode, full duplex input to three outputs



Portable

- Replicate any network traffic
- Portable, Plug & Play
- Easy configuration, no power required
- Supports jumbo frames
- Optional one or two segment configurations per module
- Passes physical errors
- 100% secure and transparent, no IP address, No MAC address; cannot be hacked
- Tested and Certified









1U Modular Chassis



1U Chassis



Model #	Network Speed	Ports	Network	Monitor	# of TAPs	Split Ratio*	Wavelengths	Media	Connector/ Mode
RMP-1U	 1U Rack Mount Kit - Hold up to 4 Modules, each Module can have 1, 2, 3 or 4 TAPs								
OS23321X3	1G/10Gbps		1 LC	3 LC	1	33.3/33.3/33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber
OS23341X3	1G/10Gbps		1 LC	3 LC	2	33.3/33.3/33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber
OS23361X3	1G/10Gbps		1 LC	3 LC	3	33.3/33.3/33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber
OS233211X3	1G/10Gbps		1 LC	3 LC	21	33.3/33.3/33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber
FMC-1U	Fiber Modular Chassis								
OS23321X3M	1G/10Gbps		1 LC	3 LC	2	33.3/33.3/33.3	1310/1550nm	Fiber-OS2	Fiber LC Single-Mode Fiber

2

Copper

Network TAPs

Garland Technology's Copper Test Access Points (TAPs) sets the industry's benchmark with features to include link speed synchronization, link failure propagation, media conversion, fail-safe technology, power over ethernet, and utilization rules and alerts, allowing Garland Technology to provide the visibility required to efficiently manage even the most complex network infrastructure.

Garland Technology offers copper network TAPs in network speeds of 10/100M or 10M/100M/1000M (1G).

- 100% network visibility
- 100% secure and invisible; no IP address; no Mac address; cannot be hacked
- Copper TAPs in 10M/100M or 10M/100M/1000M (1G)
- Passes physical layer errors
- Packet injection and packet slicing available.
- Portable, plug & play units or 1U or 2U chassis systems

APPLICATIONS

- Network & Application Monitoring
- Network & Application Analysis
- Network & Application Performance

+ Tap "Breakout" Mode is ideal when utilization is very high and packet loss is not an option.

SOLUTIONS

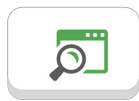
Copper Network TAPs are ideal for:



IDS



DPI



Forensics



Network
Packet Broker



Lawful
Intercept

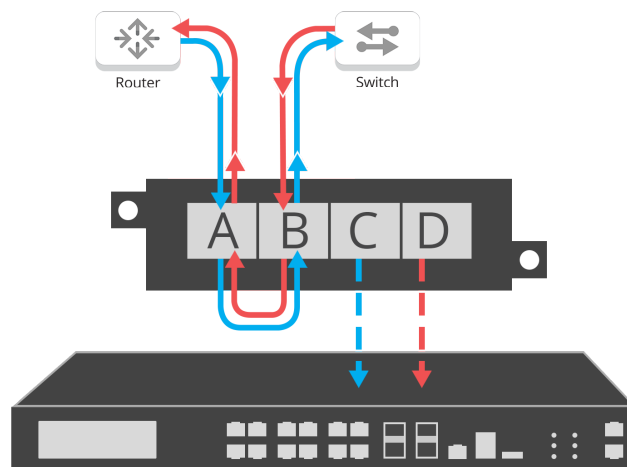


Network
Analyzer



APM

NETWORK FLOW



Tap "Breakout" Mode

Copper Network TAPs

10M/100M or 10/100/1000M (1G) | Portable




P1GCCB

- Failsafe design
- Link failure propagation
- Supports jumbo frame
- Portable, Plug & Play units for on-the-go trouble shooting
- 1U rack mount kit holds up to 4 modules, each module can have 1, 2, 3, or 4 TAPs
- Noiseless operation. No moving parts.
- Easy configure; switches on back
- PoE (Power over Ethernet)
- Tested and Certified



RMP-1U



Model #	Network Speed	Chassis Size	# of TAPs	Passive	Power	Serial Port	Media	Connector/Mode
RMP-1U	 1U Rack Mount Kit - Holds up to 4 Portable TAPs							
PT100*	10/100M	Portable	1	Yes	DC	No	Copper	Copper - RJ45
P1GCCB*	10/100/1000M (1G)	Portable	1	Failsafe Design	DC	No	Copper	Copper - RJ45

*Supports Power over Ethernet (PoE)

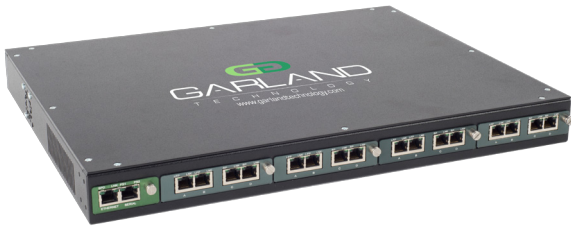
Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
INT1G10CSA	10/100/1000M	4 Copper - RJ-45	2 SFP	Yes	Yes	Yes	No

Model #	Network Speed	Media		Modes				Packet Injection Support
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass	
P1GCCAS	10/100/1000M	2 Copper RJ-45	2 Copper RJ-45	Yes	Yes	Yes	No	No

Model #	Network Speed	Media		Modes				Packet Injection Support	PoE Support
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Bypass		
P1GCCBP	100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	Yes	Yes	Yes	Yes	No
P1GCCBPPOE+	100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	Yes	Yes	Yes	Yes	Yes

Copper Modular Network TAP Systems

10/100M and 10/100/1000M | 1U or 2U 1G Modular Chassis



1U Chassis

- 1U or 2U Data Center Solutions for 1G networks
- Dual AC or DC internal power supplies per Chassis
- Exclusive high density 1U = 4 TAPS | 2 U = 12 TAPS
- Remote management option with CLI or GUI
- Hot swappable
- Link failure propagation (LFP)
- Supports jumbo frames
- Flexible design - accommodates any 1G network scenario
- Scalable design - add modules as needed
- Tested and Certified



2U Chassis



Remote Access



Chassis options

Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (maximum)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPS	Dual Internal AC	100-240VAC	0.75A@115VAC	86.25 Watts	17.40" x 1.75" x 13.45" (441.96mm x 44.45mm x 341.63mm)
M1G1DCE	1U; up to 4 TAPS	Dual Internal DC	36-60VDC	1A@48VDC	48 Watts	
M1G2ACE	2U; up to 12 TAPS	Dual Internal AC	100-240VAC	1A@115VAC	115 Watts	17.40" x 3.47" x 13.45" (441.96mm x 88.14mm x 341.63mm)
M1G2DCE	2U; up to 12 TAPS	Dual Internal DC	36-60VDC	2.8A@48VDC	134.4 Watts	
M1GC*	Management card: Ethernet/GUI - and - Serial/CLI for M1GxxxE					

*Blanking plates are used if management card is not required or if not all TAP modules are populated. Management card and additional GT TAP modules can be added to chassis.

Copper Breakout TAP options

Model #	Network Speed	Media		Modes					Features
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Filtering	Bypass	
M100CCB*	10/100M	2 Copper-RJ45, passive	2 Copper-RJ45	Yes	No	No	No	No	Passive
M1GCCB*	10/100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	No	No	No	No	Link Sync with Fail Safe

*Supports Power over Ethernet (PoE)

Military-Grade Industrial Network TAPs

10/100/1000M Copper | Modular Portable Chassis | Supports TAP "Breakout" Mode



- Supports link speed synchronization
- Supports breakout mode
- Connectivity to copper ports
- Supports jumbo frames
- 1U rack mount holds up to two portable TAPs
- Passes physical errors
- Captures full duplex traffic up to 2Gbps without dropping packets
- 100% secure and transparent, no IP address, No MAC address; cannot be hacked
- Tested and Certified



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Link Speed Synchronization
M1GP1G-DC	Two slot Chassis - Holds up to 2 Modular TAPs						
	Single external DC power supply unit						
M100CCBm	10/100M	2 Mighty Mouse 10/100Mbps	2 Mighty Mouse 10/100Mbps	Yes	No	No	Yes
M1GCCBm	10/100/1000M	2 Mighty Mouse 10/100/1000Mbps	2 Mighty Mouse 10/100/1000Mbps	Yes	No	No	No

3

Aggregator

Network TAPs

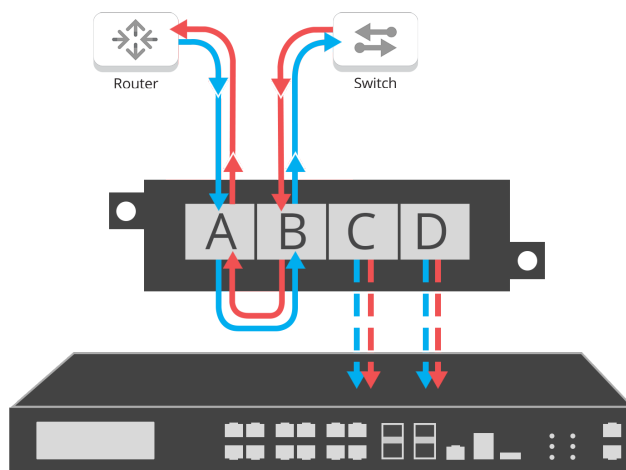
Garland Technology's full line of Aggregator and Regeneration Test Access Points (TAPs) are used to capture full-duplex network traffic where it can be sent to multiple monitoring appliances, providing the visibility required to efficiently manage today's most complex network infrastructures.

- 100% network visibility
- 100% secure and invisible; no IP address; no Mac address; cannot be hacked
- Media Conversion for:
 - Fiber 1G (SX, LX to copper/SFP)
- Copper TAPs in 10M/100M or 10/100/1000M (1G)
- New Universal Aggregator TAP
 - Supports tap 'breakout,' regeneration/SPAN, or bypass mode
- Portable, plug & play units, 1U or 2U chassis systems, or 1U modular system

APPLICATIONS

- Tap "Breakout" mode: Use for full utilization to capture 100% traffic.
- Aggregation mode: Capture 100% full duplex traffic for multiple monitoring appliances or to a single monitoring port.
- Regeneration/SPAN mode: Replicate network traffic to three ports.
- TAP once: Test and validate in-band security appliances off line then deploy out-of-band (Universal TAPs only).
- TAP once and send to multiple monitoring devices.
- Capture full duplex traffic from both directions.
- Out-of-band monitoring

Network Flow



Aggregation Mode

Copper Aggregator Network TAPs

10/100/1000M (1G) | Portable



- Passive, listen only for monitoring devices
- No Packet Injection
- Supports Link Speed Synchronization
- Supports: tap “breakout,” aggregation, regeneration/SPAN modes
- Plug & Play; easy configuration; switches on back
- Use alone, or fit 4 portables into a rack mount kit
- Tested and Certified



RMP-1U



Model #	Network Speed	Media		Modes				Packet Injection Support
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass	
RMP-1U		1U Rack Mount Kit - Holds up to 4 Portable TAPs						
P1GCCAS	10/100/1000M	2 Copper RJ-45	2 Copper RJ-45	Yes	Yes	Yes	No	No
P1GCSAS	10/100/1000M	2 Copper RJ-45	2 SFP	Yes	Yes	Yes	No	No

Copper Aggregator Universal Network TAPs

100M/1G | Portable



- Support: tap “breakout,” aggregation, regeneration/SPAN or bypass mode
- Plug & Play; easy configuration; switches on back
- Use alone, or fit 4 portables into a rack mount kit
- Supports link failure propagation (LFP)
- Supports jumbo frames and passes physical errors
- Supports packet injection in aggregation mode
- Power over Ethernet (PoE) optional
- Noiseless, no fans
- FPGA Design
- Tested and Certified



RMP-1U



Model #	Network Speed	Media		Modes				Packet Injection Support	PoE Support
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Bypass		
RMP-1U		1U Rack Mount Kit - Holds up to 4 Portable TAPs							
P1GCCBP	100/1000M	2 Copper-RJ45	2 Copper -RJ45	Yes	Yes	Yes	Yes	Yes	No
P1GCSBP	100/1000M	2 Copper-RJ45	2 SFP	Yes	Yes	Yes	Yes	Yes	No
P1GCCBPPOE+	100/1000M	2 Copper-RJ45	2 Copper -RJ45	Yes	Yes	Yes	Yes	Yes	Yes
P1GCSBPPOE+	100/1000M	2 Copper-RJ45	2 SFP	Yes	Yes	Yes	Yes	Yes	Yes

Fiber Aggregator Network TAPs

1G | Portable



- Media conversion: SX or LX to copper or SFP
- Supports: tap “breakout,” aggregation, regeneration/SPAN modes
- Plug & Play; easy configuration; switches on back of TAP
- Use alone, or fit 4 portables into a rack mount kit
- Supports jumbo frames and passes physical errors
- Tested and Certified



RMP-1U



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
RMP-1U		1U Rack Mount Kit - Holds up to 4 Portable TAPs					
P1GMCA	1G	2 SX Multi-mode Fiber - LC	2 Copper - RJ-45	Yes	Yes	Yes	No
P1GMSA	1G	2 SX Multi-mode Fiber - LC	2 SFP	Yes	Yes	Yes	No
P1GSCA	1G	2 LX Single-mode Fiber-LC	2 Copper - RJ-45	Yes	Yes	Yes	No
P1GSSA	1G	2 LX Single-mode Fiber-LC	2 SFP	Yes	Yes	Yes	No

100BASE-FX Aggregator Network TAPs

100BASE-FX | Portable | Supports TAP “Breakout”, Aggregation, Regeneration/SPAN



- Media conversion; 100Base-FX to copper
- Portable, Plug & Play
- Easy configuration; switches on back of TAP
- Supports Breakout, Aggregation, and SPAN
- Supports jumbo frames
- 1U rack mount holds up to four portable TAPs
- Passes physical errors
- A & B live network ports are passive, zero interruption if network is powered up or down.
- 100% secure and transparent, no IP address, No MAC address; cannot be hacked
- Tested and Certified



RMP-1U



Model #	Media		Modes			
	Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
RMP-1U	1U Rack Mount Kit - Holds up to 4 Portable TAPs					
P100FXCA	100Base-FX	2 Copper - RJ-45 100/1000M (1Gbps)	Yes	Yes	Yes	No

Passive Aggregator Network TAPs

100M | Portable



- Passive 100M
- Two (2) 1G Aggregated Monitoring ports
- Aggregation-mode only TAP
- Supports Power over Ethernet (PoE)
- Portable, plug and play design
- Supports jumbo frames and passes physical errors
- Single external power supply
- Tested and Certified



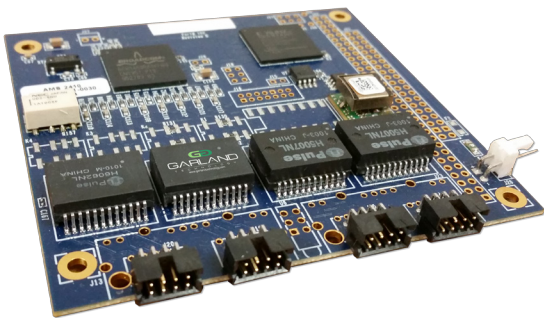
RMP-1U



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
RMP-1U				1U Rack Mount Kit - Holds up to 4 Portable TAPs			
P100CCA	100M	2 Copper RJ-45	2 Copper 1000M RJ-45	No	Yes	Yes	No

Passive Aggregator Network TAPs

100M | Stack Design



- Passive 100M
- Two (2) 1G Aggregated Monitoring ports
- Aggregation-mode only TAP
- Supports Power over Ethernet (PoE)
- Supports jumbo frames and passes physical errors
- Single external power supply
- Stack design with board-to-board connectors
- Media: Dual-row, 8 circuits, copper alloy base, gold flashed
- Tested and Certified



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
PC104	100M	2-PCB	2-PCB	No	Yes	Yes	No

Fiber Modular Aggregator Universal Network TAPs

10G | 1U Chassis



- Support: tap “breakout,” aggregation, regeneration/SPAN or bypass mode
- 10G Media Conversion: to SR, LR and ER
- Monitor four inline appliances with fail over assurance
- 1U chassis system supports up to 4 TAPs
- Configure and manage remotely or locally
- Field programmable TAP modules
- Supports jumbo frames, packet injection, link failure propagation (LFP)
- Tested and Certified



1U Chassis



Chassis System								
Model #	Description							
M10G1ACv2	10G-1U Chassis System: Supports up to 4 modular Bypass TAPs. Dual internal AC power supplies. Voltage: 90 - 264 Volts							
M10G1DCv2	10G-1U Chassis System: Supports up to 4 modular Bypass TAPs. Dual internal DC power supplies. Voltage: 36 - 75 Volts							
Model #	Network Speed	Bypass TAP Module	Media		Modes			
			Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Bypass
M10GMSBPv2	10G	SR Multi-mode Fiber	2 SR Multi-mode, LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes
M10GSSBPv2	10G	LR Single mode Fiber	2 LR Single mode LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes
M10GESBPv2	10G	ER Single mode Fiber	2 ER Single mode LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes

Copper High Density Aggregator Network TAPs

1G | 1U



- 1U High Density Solution: TAP up to 4 network segments; Aggregate traffic to 1 or 2 monitoring ports; Can fit to 2 INT1G10CSA units in 1U space
- Supports: tap “breakout,” aggregation, regeneration/SPAN modes
- Link speed synchronization
- Link failure propagation (LFP)
- Supports jumbo frames and passes physical errors
- Tested and Certified.



RMP-1U



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
RMP-1U	1U Rack Mount Plate Kit Included						
INT1G10CSA	10/100/1000M	4 Copper - RJ-45	2 SFP	Yes	Yes	Yes	No

Aggregator Modular Network TAP System

1G | 1U or 2U 1G Modular Chassis System



1U Chassis

- 1U or 2U Data Center Solutions for 1G networks
- Exclusive high density 1U = 4 TAPS | 2 U = 12 TAPS
- Remote management option with CLI or GUI
- Hot swappable
- Link failure propagation (LFP)
- Supports jumbo frames
- Flexible design - accommodates any 1G network scenario
- Scalable design - add modules as needed
- Tested and Certified



2U Chassis



Remote Access



Chassis options						
Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (maximum)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPs	Dual Internal AC	100-240VAC	0.75A@115VAC	86.25 Watts	17.40" x 1.75" x 13.45" (441.96mm x 44.45mm x 341.63mm)
M1G1DCE	1U; up to 4 TAPs	Dual Internal DC	36-60VDC	1A@48VDC	48 Watts	
M1G2ACE	2U; up to 12 TAPs	Dual Internal AC	100-240VAC	1A@115VAC	115 Watts	17.40" x 3.47" x 13.45" (441.96mm x 88.14mm x 341.63mm)
M1G2DCE	2U; up to 12 TAPs	Dual Internal DC	36-60VDC	2.8A@48VDC	134.4 Watts	
M1GC*	Management card: Ethernet/GUI - and - Serial/CLI for M1GxxxE					

*Blanking plates are used if management card is not required or if not all TAP modules are populated. Management card and additional GT TAP modules can be added to chassis.

Aggregator TAP options										
Model #	Network Speed	Media		Modes					Packet Injection Support	Packet Slicing
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Filtering	Bypass		
M1GCCBP	100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GCSBP	100/1000M	2 Copper-RJ45	2 SFP	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GMCA	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	No	No	No	Yes
M1GMSA	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	No	No	No	Yes
M1GSCA	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	No	No	No	Yes
M1GSSA	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	No	No	No	Yes

4

Filtering

Network TAPs

Garland Technology's Filtering Test Access Points (TAPs) ensure that monitoring ports do not become oversubscribed with unneeded data by filtering through the packets and traffic not needed, ultimately providing the visibility required to efficiently manage the most complex network infrastructures.

The modular packet broker chassis system features a flexible and scalable design to meet your network needs today and tomorrow.

- Scalable Modular TAPs System:
 - 2U holds up to 12 TAPs - backplane filtering within TAP row
 - 1U holds up to 4 TAPs - backplane filtering between TAPs
- Management Options: Ethernet with GUI - and - Serial with CLI controller
- Dual internal AC or DC power supplies
- TAP modules are hot swappable, fully configurable and interchangeable
- 100% secure and invisible; no IP address, no MAC address; cannot be hacked.

APPLICATIONS

- Remote Management
- High density data center design.
- Network efficiency; only filter the packets required.
- Media Conversion for 1G networks

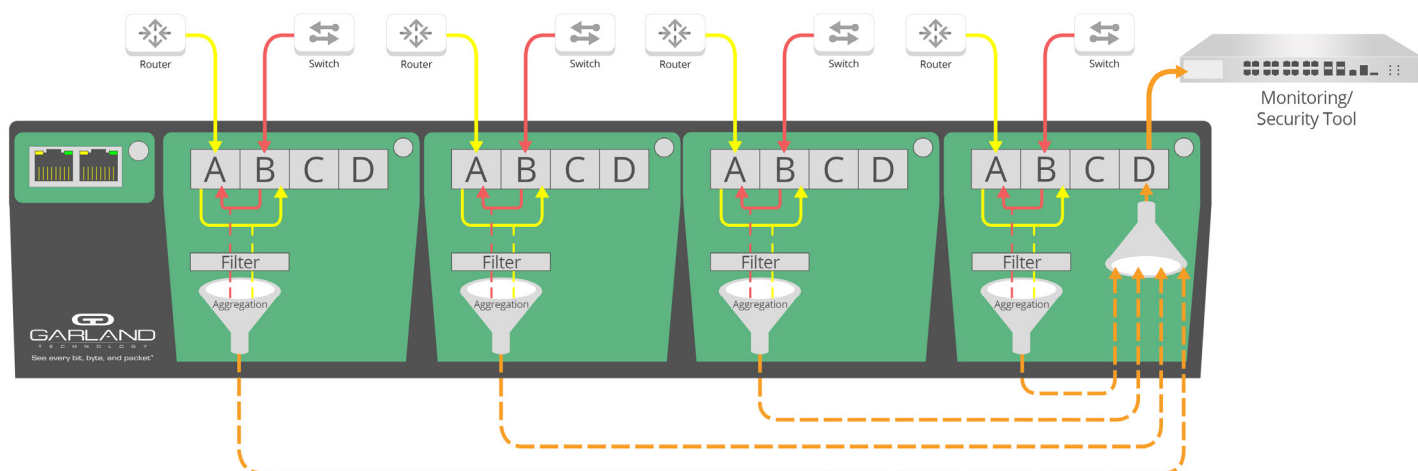
MEDIA CONVERSION:

Fiber (SX, LX, ZX) to copper (TX) - or copper (TX) to fiber (SX, LX, ZX). Short range fiber (SX) to long range fiber (LX or ZX).

FILTERS:

- Port Mapping of layers 2, 3, and 4.
- Filterings: MAC, VLAN, IP, DSCP, TCP, UDP
- Protocol: HTTP, VoIP, FTP
- VLAN ID

Network Flow



Filtering Network TAPs with Remote Management

1G | Portable




P1GCCFE

- Easy remote access and management with GUI/CLI card.
- Set utilization alerts to avoid oversubscription.
- Filter and aggregate to monitoring/analyzer tools
- Supports tap "breakout," aggregation, regeneration/SPAN and filtering modes.
- Copper TAPs support Link Speed Synchronization.
- 100% secure and invisible; no IP address, no MAC address; cannot be hacked.
- Supports Jumbo frames.
- 1U rack mount holds up to 4 portable TAPs.
- Tested and Certified



RMP-1U



Model #	Network Speed	Chassis Size	Connector/Mode
RMP-1U		1U Rack Mount Kit - Hold up to 4 Portable TAPs	
P1GCCFE	10/100/1000M	2 Copper-RJ45	2 Copper-RJ45
P1GCSFE	10/100/1000M	2 Copper-RJ45	2 SFP
P1GMCFE	1G	2 SX Multi-mode	2 Copper-RJ45
P1GMSFE	1G	2 SX Multi-mode	2 SFP
P1GSCFE	1G	2 LX Single-mode	2 Copper-RJ45
P1GSSFE	1G	2 LX Single-mode	2 SFP

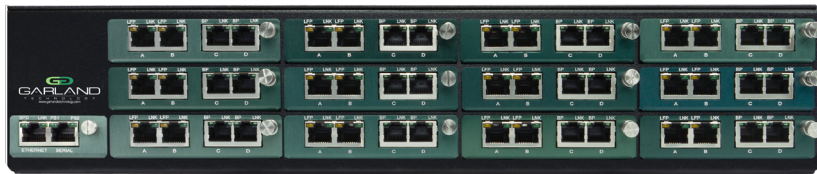
Modular Network Packet Broker System

1G | 1U or 2U Chassis



1U Chassis

- 1U or 2U Data Center Solutions for 1G networks
- Exclusive high density 1U = 4 TAPS | 2 U = 12 TAPS
- Remote management option with CLI or GUI
- Hot swappable
- Link failure propagation (LFP)
- Supports jumbo frames
- Flexible design - accommodates any 1G network scenario
- Scalable design - add modules as needed
- Tested and Certified



2U Chassis



Remote Access



Chassis options						
Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (maximum)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPS	Dual Internal AC	100-240VAC	0.75A@115VAC	86.25 Watts	17.40" x 1.75" x 13.45" (441.96mm x 44.45mm x 341.63mm)
M1G1DCE	1U; up to 4 TAPS	Dual Internal DC	36-60VDC	1A@48VDC	48 Watts	
M1G2ACE	2U; up to 12 TAPS	Dual Internal AC	100-240VAC	1A@115VAC	115 Watts	17.40" x 3.47" x 13.45" (441.96mm x 88.14mm x 341.63mm)
M1G2DCE	2U; up to 12 TAPS	Dual Internal DC	36-60VDC	2.8A@48VDC	134.4 Watts	
M1GC*	Management card: Ethernet/GUI - and - Serial/CLI for M1GxxxE					

*Blanking plates are used if management card is not required or if not all TAP modules are populated. Management card and additional GT TAP modules can be added to chassis.

Filtering TAP options									
Model #	Network Speed	Media		Modes					Link Speed Synchronization
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Filtering	Bypass	
M1GCCF	10/100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	Yes	Yes	Yes	No	Yes
M1GCSF	10/100/1000M	2 Copper-RJ45	2 SFP	Yes	Yes	Yes	Yes	No	Yes
M1GMCF	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	Yes	No	No
M1GMSF	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	Yes	No	No
M1GSCF	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	Yes	No	No
M1GSSF	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	Yes	No	No

5

Bypass

Network TAPs

We invented the industry's first bypass test access point, so we know it.

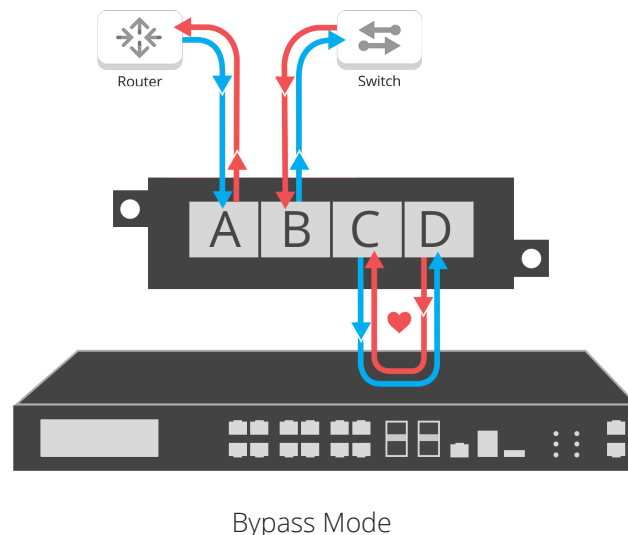
Garland Technology's Bypass Test Access Points (TAPs) remain the industry's leading solution for complete network reliability because it connects to a monitored network segment of an active, in-line security device with heartbeat technology; even if the device goes offline, the Garland Technology bypass TAP automatically switches to 'bypass mode' keeping your network running.

- Take your appliance off-line without interrupting network traffic for updates, maintenance and troubleshooting
- Supports tap "breakout," aggregation, regeneration, and bypass modes
- 100% secure and invisible; no IP address, no Mac address; cannot be hacked
- Available in portable, plug & play, 1U modular systems and customizable 1U and 2U chassis
- Media conversion for 1G and 10G
- Jerry Dillard, CTO/Co-Founder of Garland Technology invented the bypass TAP

APPLICATIONS

- TAP once and connect one primary and one back up in-band appliance and two out-of-band monitoring appliances.
- Take your inline appliance off-line without interrupting data traffic for: updates, maintenance and troubleshooting.
- Network security and monitoring of inline appliances
- Media conversion for fiber, SR, LR, and ER.
- Monitor 4 inline appliance with fail over assurance.
- Supports breakout, aggregation, regeneration, and bypass modes.
- High availability when network downtime is not an option.

Network Flow



Bypass Network TAPs with Failsafe

1G | Portable



- Supports tap "breakout," aggregation, regeneration/SPAN and bypass modes.
- Network Failsafe Technology
- Supports: Copper RJ45, SFP, LC - single and multi-mode
- Plug and Play, no configuration
- Use alone, or fit 4 portables in a 1U rack mount kit
- Bypass TAP Invented by Jerry Dillard, CTO and Co-Founder
- Power over Ethernet (PoE) optional
- Tested and Certified



RMP-1U



Model #	Network Speed	Network	Media	Packet Injection Support
RMP-1U			1U Rack Mount Kit - Holds up to 4 Portable TAPs	
Remote Management				
P1GCCBPE	100/1000M	2 Copper RJ-45	2 Copper-RJ45	Yes
P1GCSBPE	100/1000M	2 Copper RJ-45	2 SFP	Yes
P1GCCBPPOE+E	100/1000M	2 Copper RJ-45	2 Copper RJ-45	Yes
P1GCSBPPOE+E	100/1000M	2 Copper RJ-45	2 SFP	Yes
P1GMCBPE	1G	2 SX Multi-mode	2 Copper RJ-45	Yes
P1GMSBPE	1G	2 SX Multi-mode	2 SFP	Yes
P1GSCBPE	1G	2 LX Single-mode	2 Copper-RJ45	Yes
P1GSSBPE	1G	2 LX Single-mode	2 SFP	Yes
Manual Programming				
P1GCCBP	100/1000M	2 Copper-RJ45	2 Copper -RJ45	Yes
P1GCSBP	100/1000M	2 Copper-RJ45	2 SFP	Yes
P1GCCBPPOE+	100/1000M	2 Copper-RJ45	2 Copper -RJ45	Yes
P1GCSBPPOE+	100/1000M	2 Copper-RJ45	2 SFP	Yes
P1GMCBP	1G	2 SX Multi-mode, Fiber-LC	2 Copper -RJ45	Yes
P1GMSBP	1G	2 SX Multi-mode, Fiber-LC	2 SFP	Yes
P1GSCBP	1G	2 LX Single-mode, Fiber-LC	2 Copper -RJ45	Yes
P1GSSBP	1G	2 LX Single-mode, Fiber-LC	2 SFP	Yes

Integrated Bypass Network TAP System

1G | 1U Chassis High Availability Solution



- 6 Port High Availability (HA) solution; TAP once and connect one primary and one back up inline appliance and two out-of-band monitoring appliances
- Supports: Copper RJ-45 and short and long range fiber (SX, LX, ZX)
- Dual internal power supplies
- High Availability solution in 1U design
- Media conversion: Fiber to Copper.
- Bypass TAP Invented by Jerry Dillard, CTO and Co-Founder.
- Tested and Certified



Model #	Network Speed	Media		Modes			
		Network	Monitor	Breakout	Aggregation	Regeneration	Bypass
INT1G8CCBP	1G	2 Copper-RJ45	6 Copper-RJ45	Ports CDEFGH	GH	No	Ports CDEF
INT1G8SCBP	1G	2 LX Single-mode, LC-Fiber	6 Copper-RJ45	Ports CDEFGH	GH	No	Ports CDEF
INT1G8MCBP	1G	2 SX Multi-mode, LC-Fiber	6 Copper-RJ45	Ports CDEFGH	GH	No	Ports CDEF

Bypass Modular Network TAP System

10G | 1U Chassis



- Monitor four inline security appliances with fail over assurance
- Dual internal power supplies
- TAP modules are field upgradable
- Guarantee network uptime for 4 inline appliances with fail over and dual internal power supplies.
- Media conversion for fiber: SR, LR and ER
- Bypass TAP Invented by Jerry Dillard, CTO and Co-Founder.
- Tested and Certified



1U Chassis



Chassis System								
Model #	Description							
M10G1ACv2	10G-1U Chassis System: Supports up to 4 modular Bypass TAPs. Dual internal AC power supplies. Voltage: 85 - 264 Volts, 100 Watt total power consumption with 4 TAPs							
M10G1DCv2	10G-1U Chassis System: Supports up to 4 modular Bypass TAPs. Dual internal DC power supplies. Voltage: 36 - 72 Volts; 100 Watt total power consumption with 4 TAPs							
Model #	Network Speed	Bypass TAP Module	Media		Modes			
			Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Bypass
M10GMSBPv2	10G	SR Multi-mode Fiber	2 SR Multi-mode, LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes
M10GSSBPv2	10G	LR Single mode Fiber	2 LR Single mode LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes
M10GESBPv2	10G	ER Single mode Fiber	2 ER Single mode LC-Fiber	2 SFP+ Cages	Yes	Yes	Yes	Yes

*Theoretical distance - defined as half a distance as stated by the IEEE 802.3 standard.

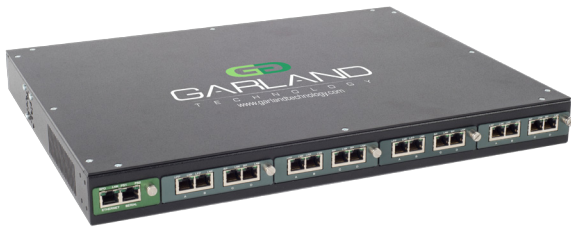
Available Pluggables & Cables:	
Model #	Description
SFPTX	SFP 10/100/1000 Copper RJ-45 Connector
SFPSX	SFP 1000Base-SX Multi-Mode Fiber LC Connector
SFPLX	SFP 1000Base-LX Single Mode Fiber LC Connector
SFP+SR	SFP+ Dual Speed 1 Gigabit-SX / 10 Gigabit-SR Multi-Mode Fiber LC Connector
SFP+LR	SFP+ Dual Speed 1 Gigabit-LX / 10 Gigabit-LR Single Mode Fiber LC Connector
SFP+ER	SFP+ 10Gigabit-ER Single-Mode Fiber LC Connector
SFP+SR10	SFP+ 10Gigabit-SR Multi-Mode Fiber LC Connector - only supports 10G
SFP+LR10	SFP+ 10Gigabit-LR Multi-Mode Fiber LC Connector - only supports 10G
TWINAX1M*	Twinax Copper Direct Connect Cable SFP+ 10Gigabit 1 Meter

*Also available in 5 and 10 meters.



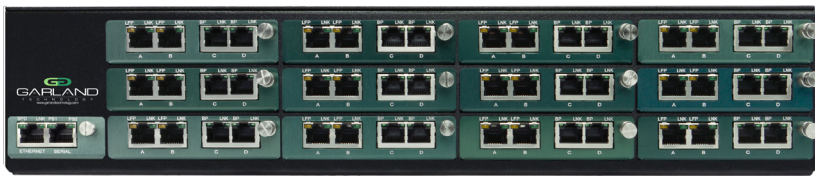
Bypass Modular Network TAP System

1G | 1U or 2U Chassis



1U Chassis

- Ideal for data centers and media conversion
- 1U holds up to 4 TAPs; 2U holds up to 12 TAPs
- Remote management option with CLI or GUI
- Hot swappable
- Supports: Copper RJ-45 and short and long range fiber (SX, LX, ZX)
- Bypass taps are configurable to tap "breakout," aggregation, regeneration/SPAN modes
- Flexible design - accommodates any 1G network scenario
- Scalable design - add modules as needed
- Tested and Certified



2U Chassis



Remote Access



Chassis options						
Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (maximum)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPs	Dual Internal AC	100-240VAC	0.75A@115VAC	86.25 Watts	17.40" x 1.75" x 13.45" (441.96mm x 44.45mm x 341.63mm)
M1G1DCE	1U; up to 4 TAPs	Dual Internal DC	36-60VDC	1A@48VDC	48 Watts	
M1G2ACE	2U; up to 12 TAPs	Dual Internal AC	100-240VAC	1A@115VAC	115 Watts	17.40" x 3.47" x 13.45" (441.96mm x 88.14mm x 341.63mm)
M1G2DCE	2U; up to 12 TAPs	Dual Internal DC	36-60VDC	2.8A@48VDC	134.4 Watts	
M1GC*	Management card: Ethernet/GUI - and - Serial/CLI for M1GxxxE					

*Blanking plates are used if management card is not required or if not all TAP modules are populated. Management card and additional GT TAP modules can be added to chassis.

Bypass TAP options										
Model #	Network Speed	Media		Modes					Packet Injection Support	Packet Slicing
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Filtering	Bypass		
M1GCCBP	100/1000M	2 Copper-RJ45	2 Copper-RJ45	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GCSBP	100/1000M	2 Copper-RJ45	2 SFP	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GMCBP	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GMSBP	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GSCBP	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	Yes	Yes	Yes	No	Yes	Yes	Yes
M1GSSBP	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	Yes	Yes	Yes	No	Yes	Yes	Yes

EdgeLens® In-line Security

Packet Broker System | 1G/10G | 1U Chassis



- Supports filtering, aggregating, load balancing, and regeneration
- TAP a 1G link or 10G link and deliver data to 1G & 10G appliances
- TAP once and connect multiple inline appliances
- Integrated 1U chassis bypass TAP system
- Dual AC hot swappable power supplies
- 1 Management port; 1 Console port
- Heartbeat packet health check
- Network failsafe for active, inline appliances
- Session aware load balancing
- MPLS Header Stripping
- VLAN Tagging and Stripping

FILTERS:

- User defined filters for layer 2, 3, and 4
- MAC, IPv4/IPv6, TCP/UDP, MPLS, and Ethertype
- Protocol: HTTP, VoIP, FTP
- VLAN ID
- User Defined Byte (UDB)
- Ingress and egress filtering



Model #	Ports	Network Speed	SFP/SFP+ Ports	Bypass TAPs	Power Consumption	Dual Hot Swappable Power Supplies*
INT10G2SRBP10SFP+		1G/10G	10 SFP/SFP+	(1) 1G-SX/10G-SR TAP 2 fiber ports	115 Watts	AC
INT10G2LRBP10SFP+		1G/10G	10 SFP/SFP+	(1) 1G-SX/10G-LR TAP 2 fiber ports	115 Watts	AC
INT10G8SRBP16SFP+		1G/10G	16 SFP/SFP+	(4) 1G-SX/10G-SR TAP 8 fiber ports	139 Watts	AC
INT10G8LRBP16SFP+		1G/10G	16 SFP/SFP+	(4) 1G-SX/10G-LR TAP 8 fiber ports	139 Watts	AC

Power Supply options	
PS10-HS-DC	Hot Swappable DC -48vdc Power Supplies
PS10-HS-AC	Hot Swappable AC Power Supplies (*Two included with each EdgeLens order)

(2) Two power supplies are required for each chassis

Available Pluggables & Cables:	
Model #	Description
SFPTX	SFP 10/100/1000 Copper RJ-45 Connector
SFPSX	SFP 1000Base-SX Multi-Mode Fiber LC Connector
SFPLX	SFP 1000Base-LX Single Mode Fiber LC Connector
SFP+SR	SFP+ Dual Speed 1 Gigabit-SX / 10 Gigabit-SR Multi-Mode Fiber LC Connector
SFP+LR	SFP+ Dual Speed 1 Gigabit-LX / 10 Gigabit-LR Single Mode Fiber LC Connector
SFP+ER	SFP+ 10Gigabit-ER Single-Mode Fiber LC Connector
SFP+SR10	SFP+ 10Gigabit-SR Multi-Mode Fiber LC Connector - only supports 10G
SFP+LR10	SFP+ 10Gigabit-LR Multi-Mode Fiber LC Connector - only supports 10G
TWINAX1M*	Twinax Copper Direct Connect Cable SFP+ 10Gigabit 1 Meter



*Also available in 5 and 10 meters.

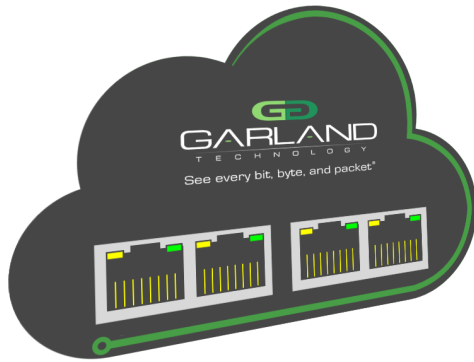
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Virtual Network TAPs

A virtual test access point (TAP) is a software-based solution that captures a copy of the data, giving full visibility to virtual machine (VM) traffic in virtual computing environments for monitoring virtual networks and applications.

Garland vTAP

10G | Virtual | Supports OpenStack and VMware



- Enables 100% visibility of VM traffic
- Compliments physical TAPs
- Blind spot removal with complete visibility to east-west, inter-VM, and blade server mid-plane traffic
- Supports tenant based tunnels (VLAN, VXLAN, and GRE) for isolation, privacy, and compliance
- Supports traffic filtering and packet slicing
- Supports KVM and VMware ESXI
- Supports VMware vSS and vDS
- Centralized management with a dashboard for orchestration and monitoring
- One touch installation

Model #	License	Description
LA05VTAP-VM	5 vTAP License Pack - Annual	License Activation Pack for 5 vTAP VMs - use in VMware Environments
LA25VTAP-VM	25 vTAP License Pack - Annual	License Activation Pack for 25 vTAP VMs - use in VMware Environments
LA50VTAP-VM	50 vTAP License Pack - Annual	License Activation Pack for 50 vTAP VMs - use in VMware Environments
LA100VTAP-VM	100 vTAP License Pack - Annual	License Activation Pack for 100 vTAP VMs - use in VMware Environments
LA250VTAP-VM	250 vTAP License Pack - Annual	License Activation Pack for 250 vTAP VMs - use in VMware Environments
LA500VTAP-VM	500 vTAP License Pack - Annual	License Activation Pack for 500 vTAP VMs - use in VMware Environments
LA1000VTAP-VM	1000 vTAP License Pack - Annual	License Activation Pack for 1000 vTAP VMs - use in VMware Environments
LA05VTAP-OS	5 vTAP License Pack - Annual	License Activation Pack for 5 vTAP VMs - use in OpenStack Environments
LA25VTAP-OS	25 vTAP License Pack - Annual	License Activation Pack for 25 vTAP VMs - use in OpenStack Environments
LA50VTAP-OS	50 vTAP License Pack - Annual	License Activation Pack for 50 vTAP VMs - use in OpenStack Environments
LA100VTAP-OS	100 vTAP License Pack - Annual	License Activation Pack for 100 vTAP VMs - use in OpenStack Environments
LA250VTAP-OS	250 vTAP License Pack - Annual	License Activation Pack for 250 vTAP VMs - use in OpenStack Environments
LA500VTAP-OS	500 vTAP License Pack - Annual	License Activation Pack for 500 vTAP VMs - use in OpenStack Environments
LA1000VTAP-OS	1000 vTAP License Pack - Annual	License Activation Pack for 1000 vTAP VMs - use in OpenStack Environments

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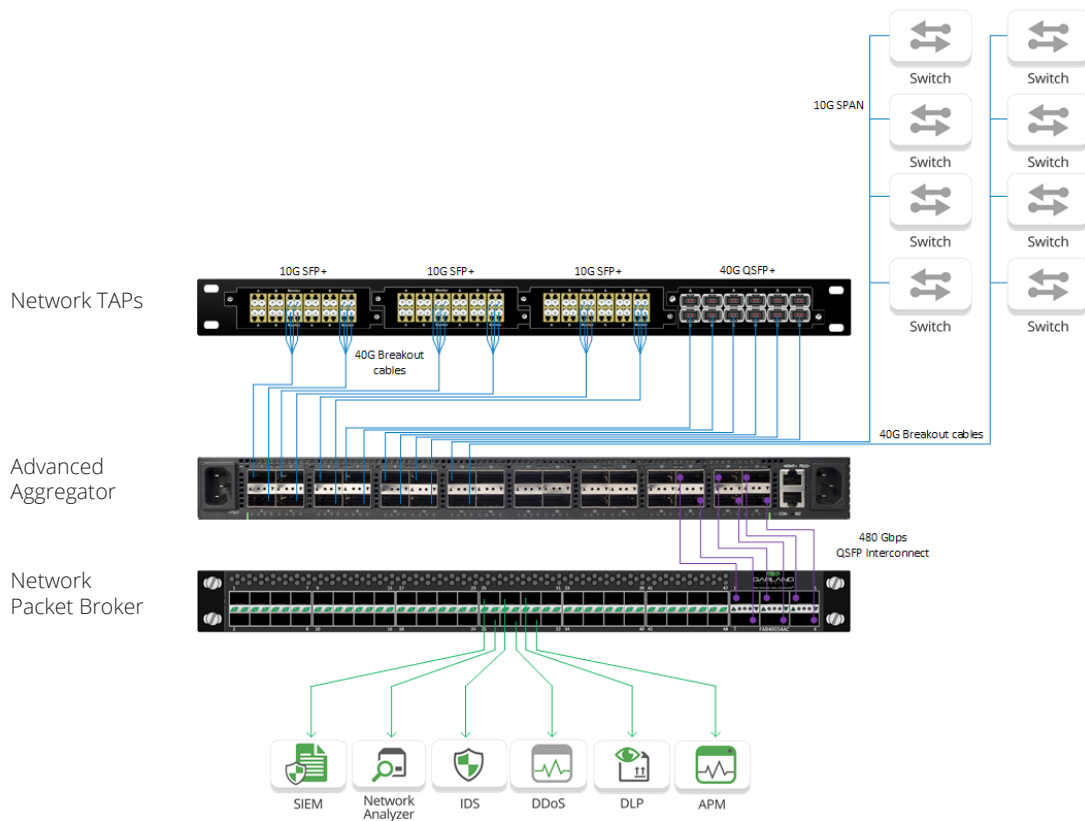
Advanced Aggregator

Garland Technology's Advanced Aggregators are devices designed to increase efficiency and port utilization of network packet brokers. They are commonly used at the network edge or in TOR applications where port utilization tends to be low. Aggregators are also capable of pre-filtering traffic prior to sending out to Network Packet Broker's for advanced filtering or taking the place of packet brokers in applications where only L2-L4 filtering is required. Aggregators improve ROI by reducing the total cost of a network visibility fabric and increasing the efficiency of existing infrastructure.

APPLICATIONS

- Aggregation of multiple TAP/SPAN ports for increased utilization
- Connect to Network Packet Broker or directly to tools
- High Density filtering, aggregation and load balancing
- Aggregation solution for large and medium size data centers
- Aggregation for enterprise and service provider networks

Network Flow



1G Advanced Aggregator System

1G/10G | 1U Chassis | 52 Port




FILTERS:

- IPv4, MAC, L4Port, VLAN, Ethertype, IP protocol
- Supports VLAN Stripping, QinQ support
- Full line rate filtering
- Packet modification

- Aggregate network traffic to a single or multiple tools (1:1, 1:N, N:1, N:N)
- Supports 1G/10G network speeds
- L2-L4 Filtering
- 52 fully supported ports - no additional per-port license fees
- Supports jumbo frames
- 4,000 filter rules
- Session/flow aware load balancing
- Hash-based load balancing and Round-Robin distribution
- Forward latency, less than 1uscc
- Hot swappable, dual Power Supplies, AC standard, DC available
- Management through CLI, GUI, and SNMP
- RADIUS and TACACS remote user authentication



Model #	Ports	Network Speed	1G Ports	10G Ports	Power *	Watts
AA1G52AC		1/10G	(48) RJ45	(4) SFP+	1+1 redundant AC Power Supplies	65W

10G Advanced Aggregator System

1G/10G/40G | 1U Chassis | 54 Port




FILTERS:

- User defined filters for Layer 2, 3, and 4
- IPv4/IPv6, MAC, L4Port, VLAN, Ethertype, IP protocol
- Supports MPLS stripping, single and stacked
- Supports VLAN stripping, QinQ support
- Full line rate filtering
- Packet modification

- Aggregate network traffic to a single or multiple tools (1:1, 1:N, N:1, N:N)
- Supports 1G/10G/40G network speeds
- OpenFlow/SDN enabled
- IPv4/IPv6 and UDF Filter support
- Up to 72 fully supported ports - no additional per-port license fees
- Port splitting functionality
- Supports jumbo frames
- Hot swappable, dual power supplies AC standard, DC available
- 1k filters
- Session/flow aware load balancing
- Configurable hash-based load balancing
- Flow replication and port mirroring
- Data burst buffering
- Management through GUI, and SNMP
- Support 80 plus platinum standard power supplies



Model #	Ports	Network Speed	10G Ports	40G Ports	Power	Watts	SNMP/Syslog Support
AA10G54AC		1G/10G/40G	(48) SFP/SFP+,	(6) QSFP+	AC	195	Yes

40G Advanced Aggregator System

10G/40G/100G | 24 Ports | 1U Chassis




FILTERS:

- User defined filters for Layer 2, 3, and 4
- IPv4, MAC, L4Port, VLAN, Ethertype, IP protocol
- Full line rate filtering
- Supports VXLAN decapsulation/encapsulation
- Supports VLAN Stripping, QinQ support
- Packet modification

- Aggregate network traffic to a single or multiple tools (1:1, 1:N, N:1, N:N)
- Supports 10G/40G/100G network speeds
- IPv4 and UDF Filter support
- Timestamping - Layer 2 Header
- 24 fully supported ports - no additional per-port license fees
- Port splitting functionality
- Supports jumbo frames
- 4,000 filter rules
- Session/flow aware load balancing
- Hash-based load balancing and Round-Robin distribution
- Forward latency, less than 1uscc
- Hot swappable, dual Power Supplies, AC standard, DC available
- Management through CLI, GUI, and SNMP
- RADIUS and TACACS remote user authentication
- sFlow Support



Model #	Ports	Network Speed	40G Port	100G Port	Power Consumption
AA40G24AC		10G/40G/100G	(20) QSFP+	(4) QSFP28	1+1 load sharing AC Power Supplies

100G Advanced Aggregator System

10G/25G/40G/100G | 32 Ports | 1U Chassis




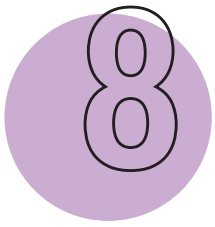
FILTER:

- User defined filters for Layer 2, 3, and 4
- IPv4/IPv6, MAC, L4Port, VLAN, Ethertype, IP protocol
- Supports MPLS stripping, single and stacked
- Supports VLAN stripping, QinQ support
- Full line rate filtering
- Packet modification

- Aggregate network traffic to a single or multiple tools (1:1, 1:N, N:1, N:N)
- Supports 10G/25G/40G/100G network speeds
- OpenFlow/SDN enabled
- IPv4/IPv6 and UDF Filter support
- 32 fully supported ports - no additional per-port license fees
- Port splitting functionality
- Supports jumbo frames
- Hot swappable, dual power supplies AC standard, DC available
- 2k filters
- Session/flow aware load balancing
- Configurable hash-based load balancing
- Flow replication and port mirroring
- Data burst buffering
- Management through GUI, and SNMP
- Support 80 plus platinum standard power supplies



Model #	Ports	Network Speed	40G Port	100G Port	Power Consumption
AA100G32AC		10G/25G/40G/100G	(32) QSFP+	(32) QSFP28	AC Power Supplies



Network Packet Brokers (NPBs)

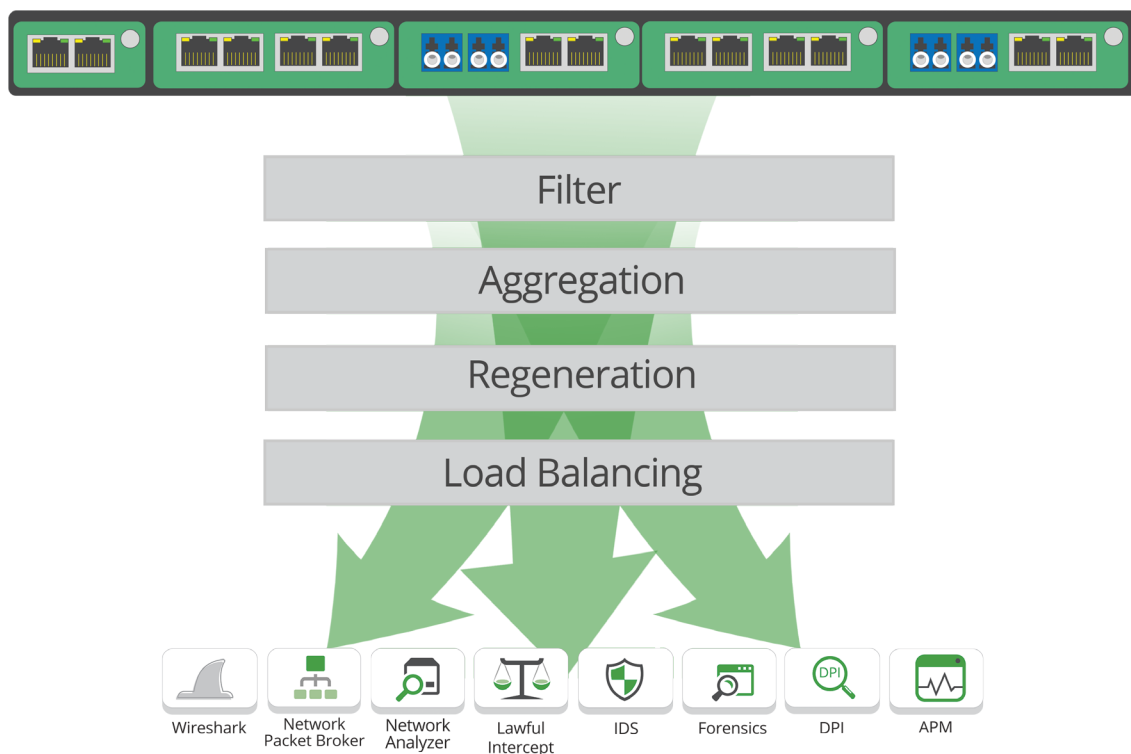
Hybrid Bypass Network TAPs

Garland Technology's Purpose Built Network Packet Brokers (NPBs) are devices that provide access to network traffic from multiple links, helping to centralize and improve efficiencies by sharing packets between the monitoring and security appliances. NPBs centralize network traffic making the tools function more efficiently by sharing packets between monitoring/security appliances. Additional features include: filtering, aggregating, regenerating, and load balancing.

- Available in 1G/10G network speeds
- Modular 1U, 2U Chassis or 1U Integrated Systems
- Supports all media - copper (TX), short range (SX and SR) and long range (LX, ZX, LR, ER) fiber
- Multi-mode or single-mode
- All features are included
- 100% network visibility
- 100% secure and invisible; no IP address; no Mac address; cannot be hacked.

APPLICATIONS

- High density solution
- Packet analysis
- Root cause analysis
- Historical lookback
- Validate policy changes
- Remote Management
- Management of inline security tools and out-of-band monitoring tools
- Load balancing for increased bandwidth demands
- EtherChannel (Port Channel Architecture)
- Media Conversion
- Network efficiency; only filter the packets required.



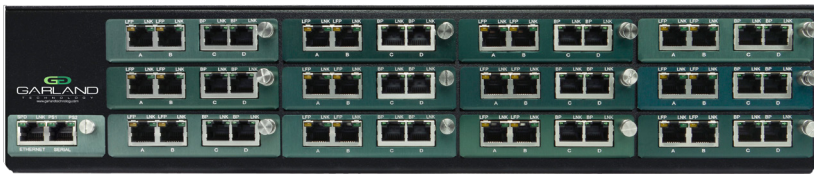
Modular Network Packet Broker System

1G | 1U or 2U Chassis



1U Chassis

- Supports 1G networks
- Flexible design; accommodates any network scenario
- High density data center solution
- 1U = 4 TAPS | 2 U = 12 TAPS
- Scalable design - add modules as needed
- Remote Access with GUI or CLI
- Port Mapping to layers 2, 3, and 4
- Multi-Tier Filtering supports MAC, VLAN, IP, DSCP, TCP, UDP
- Media Conversion: Fiber (SX, LX, ZX) and copper (TX)
- Highest density 1G integrated TAP packet broker on the market
- Tested and Certified



2U Chassis



Remote Access



Chassis options						
Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (maximum)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPs	Dual Internal AC	100-240VAC	0.75A@115VAC	86.25 Watts	17.40" x 1.75" x 13.45" (441.96mm x 44.45mm x 341.63mm)
M1G1DCE	1U; up to 4 TAPs	Dual Internal DC	36-60VDC	1A@48VDC	48 Watts	
M1G2ACE	2U; up to 12 TAPs	Dual Internal AC	100-240VAC	1A@115VAC	115 Watts	17.40" x 3.47" x 13.45" (441.96mm x 88.14mm x 341.63mm)
M1G2DCE	2U; up to 12 TAPs	Dual Internal DC	36-60VDC	2.8A@48VDC	134.4 Watts	
M1GC*	Management card: Ethernet/GUI - and - Serial/CLI for M1GxxxE					

*Blanking plates are used if management card is not required or if not all TAP modules are populated. Management card and additional GT TAP modules can be added to chassis.

EdgeLens® In-line Security

Packet Broker System | 1G/10G | 1U Chassis



- Supports filtering, aggregating, load balancing, and regeneration
- TAP a 1G link or 10G link and deliver data to 1G & 10G appliances
- TAP once and connect multiple inline appliances
- Integrated 1U chassis bypass TAP system
- Dual AC hot swappable power supplies
- 1 Management port; 1 Console port
- Heartbeat packet health check
- Network failsafe for active, inline appliances
- Session aware load balancing
- MPLS Header Stripping
- VLAN Tagging and Stripping

FILTERS:

- User defined filters for layer 2, 3, and 4
- MAC, IPv4/IPv6, TCP/UDP, MPLS, and Ethertype
- Protocol: HTTP, VoIP, FTP
- VLAN ID
- User Defined Byte (UDB)
- Ingress and egress filtering



Model #	Ports	Network Speed	SFP/SFP+ Ports	Bypass TAPs	Power Consumption	Dual Hot Swappable Power Supplies*
INT10G2SRBP10SFP+		1G/10G	10 SFP/SFP+	(1) 1G-SX/10G-SR TAP 2 fiber ports	115 Watts	AC
INT10G2LRBP10SFP+		1G/10G	10 SFP/SFP+	(1) 1G-SX/10G-LR TAP 2 fiber ports	115 Watts	AC
INT10G8SRBP16SFP+		1G/10G	16 SFP/SFP+	(4) 1G-SX/10G-SR TAP 8 fiber ports	139 Watts	AC
INT10G8LRBP16SFP+		1G/10G	16 SFP/SFP+	(4) 1G-SX/10G-LR TAP 8 fiber ports	139 Watts	AC

Power Supply options	
PS10-HS-DC	Hot Swappable DC -48vdc Power Supplies
PS10-HS-AC	Hot Swappable AC Power Supplies (*Two included with each EdgeLens order)

(2) Two power supplies are required for each chassis

Available Pluggables & Cables:	
Model #	Description
SFPTX	SFP 10/100/1000 Copper RJ-45 Connector
SFPSX	SFP 1000Base-SX Multi-Mode Fiber LC Connector
SFPLX	SFP 1000Base-LX Single Mode Fiber LC Connector
SFP+SR	SFP+ Dual Speed 1 Gigabit-SX / 10 Gigabit-SR Multi-Mode Fiber LC Connector
SFP+LR	SFP+ Dual Speed 1 Gigabit-LX / 10 Gigabit-LR Single Mode Fiber LC Connector
SFP+ER	SFP+ 10Gigabit-ER Single-Mode Fiber LC Connector
SFP+SR10	SFP+ 10Gigabit-SR Multi-Mode Fiber LC Connector - only supports 10G
SFP+LR10	SFP+ 10Gigabit-LR Multi-Mode Fiber LC Connector - only supports 10G
TWINAX1M*	Twinax Copper Direct Connect Cable SFP+ 10Gigabit 1 Meter



*Also available in 5 and 10 meters.

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Pluggables and Cables

Management and Connectivity

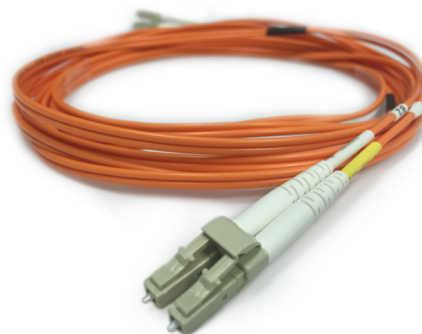
Connect your tools and TAPs to your network with quality made pluggables for copper and fiber optic networks. Garland Technology offers SFP and SFP+ pluggables that support 10/100/1000M copper and 1G, 10G, and 40G. Custom cable lengths are available in 1' and 1m increments.

Pluggable Transceivers



Pluggable Transceivers		
Model #		Description
SFPTX	1 Gbps	1000BASE-TX, SFP 10/100/1000 RJ45 copper
SFPSX	1 Gbps	1000BASE-SX, SFP Multimode Fiber 850nm
SFPLX	1 Gbps	1000BASE-LX, SFP Singlemode Fiber 1310nm - 10km
SFPEX40km	1 Gbps	1000BASE-EX, SFP Singlemode Fiber 1310nm - 40km
SFPEX90km	1 Gbps	1000BASE-EX, SFP Singlemode Fiber 1550nm - 80km
SFP+T	10 Gbps	10GBASE-T, SFP+ 100M/1G/10G RJ45 copper
SFP+SR	10 Gbps	10GBASE-SR, SFP+ Multimode Fiber 850nm (1 or 10Gbps)
SFP+LR	10 Gbps	10GBASE-LR, SFP+ Singlemode Fiber 1310nm - 10km (1 or 10Gbps)
SFP+ER	10 Gbps	10GBASE-ER, SFP+ Singlemode Fiber 1550nm - 40km
SFP+ZR80	10 Gbps	10GBASE-ZR, SFP+ Singlemode Fiber 1550nm - 80km
SFP+SR10G	10 Gbps	10GBASE-SR, SFP+ Multimode Fiber 850nm (only supports 10G)
SFP+LR10G	10 Gbps	10GBASE-LR, SFP+ Singlemode Fiber 1310nm - 10km (only supports 10Gbps)
QSFP+40G	40Gbps	40GBASE-SR4, QSFP+ Multimode Fiber, MPO/MTP-12 Connector
QSFP+40-LR4	40Gbps	40GBASE-LR4, QSFP+ Singlemode Fiber, LC Connector
QSFP+10GLR	40Gbps	40GBASE-LR Singlemode with MTP/MPO connector for Fan-out Cables
QSFP+40GBiDi	40Gbps	40GBASE-SR BiDi, QSFP+ Multimode Fiber with LC Connectors
QSFP+28SR4	100Gbps	100GBASE-SR4, QSFP+28 Multimode Fiber, MPO/MTP-12 Connector
QSFP+28LR4	100Gbps	100GBASE-LR4, QSFP+28 Singlemode Fiber, LC Connector

Cables



Twinax / Direct Attach Cables:	
Model #	Description
TWINAX1M	Twinax Copper Direct Connect Cable SFP+ to SFP+ 10Gigabit, Pre-Cut 1 Meter
TWINAX3M	Twinax Copper Direct Connect Cable SFP+ to SFP+ 10Gigabit, Pre-Cut 3 Meter
TWINAX5M	Twinax Copper Direct Connect Cable SFP+ to SFP+ 10Gigabit, Pre-Cut 5 Meter
TWINAX7M	Twinax Copper Direct Connect Cable SFP+ to SFP+ 10Gigabit, Pre-Cut 7 Meter
TWINAX10M	Twinax Copper Direct Connect Cable SFP+ to SFP+ 10Gigabit, Pre-Cut 7 Meter
TWINAX40G.5M	Direct Attach Copper Cable QSFP+ to QSFP+ 40Gigabit, Pre-Cut Half Meter
TWINAX40G1M	Direct Attach Copper Cable QSFP+ to QSFP+ 40Gigabit, Pre-Cut 1 Meter
TWINAX40G2M	Direct Attach Copper Cable QSFP+ to QSFP+ 40Gigabit, Pre-Cut 2 Meter
TWINAX40G3M	Direct Attach Copper Cable QSFP+ to QSFP+ 40Gigabit, Pre-Cut 3 Meter
TWINAX100G1M	Direct Attach Copper Cable QSFP28 to QSFP28 100Gigabit, Pre-Cut 1 Meter
TWINAX100G3M	Direct Attach Copper Cable QSFP28 to QSFP28 100Gigabit, Pre-Cut 3 Meter
TWINAX100G5M	Direct Attach Copper Cable QSFP28 to QSFP28 100Gigabit, Pre-Cut 5 Meter
Fan-out Cables: QSFP to LC Connections	
MTP12F-LC8MOM4_3	MPO/MTP to 8x 10Gb Multimode Fiber connections with LC connectors, 3 Meters (Cable)
MTP12F-LC8MOS2_3	MPO/MTP to 8x 10Gb Singlemode Fiber connections with LC connectors, 3 Meters (Cable)
Breakout Cables: QSFP to 10G SFP+ Connections	
QSFP-4SFP+_1	Direct Attach Copper Cable QSFP+ to 4x 10Gb SFP+, Pre-Cut 1 Meter
QSFP-4SFP+_2	Direct Attach Copper Cable QSFP+ to 4x 10Gb SFP+, Pre-Cut 2 Meter
QSFP-4SFP+_3	Direct Attach Copper Cable QSFP+ to 4x 10Gb SFP+, Pre-Cut 3 Meter
Breakout Cables: 100G QSFP28 to 25G SFP28 Connections	
QSFP28-4SFP28-Cable_1	Direct Attach Copper Cable QSFP28 to 4x 25Gb SFP28, Pre-Cut 1 Meter
QSFP28-4SFP28-Cable_3	Direct Attach Copper Cable QSFP28 to 4x 25Gb SFP28, Pre-Cut 3 Meter

“After utilizing other similar TAPs, Garland Technology remains second-to-none delivering 100% reliability, pricing, and logistics at full scale.”

-Blake Darché, CSO, Area 1 Security

“When I found Garland, I got a network expert on the phone and they configured a custom solution for us. Really from the beginning, from sales to the solution, to support. I can’t say enough good things.”

-Lou Rabon, Founder / CEO, Cyber Defense Group

“One of our internal goals is to guarantee network uptime and Garland helps us achieve that. In security implementations, we can manage our in-line devices without taking the network down.”

-Marty Bognanno, Manager of Infrastructure Security, Constellation Brands



Who TAPs it?



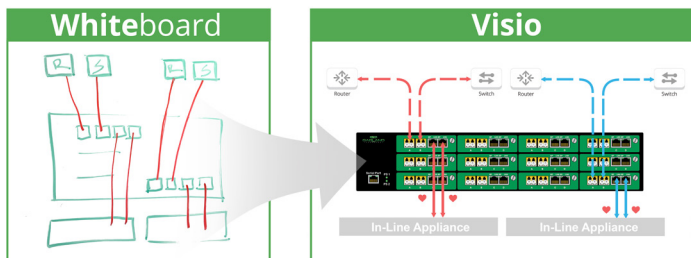
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Find your solution



What project are you planning today?

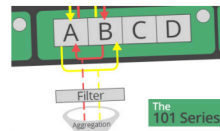
Let Garland Technology's network designers help solve your network connectivity, visibility, access and monitoring problems with a free network design consultation. Garland also works with your vendor of choice to find the right solution for your needs.



TAP Into Technology

Leading the Way in Network Technology

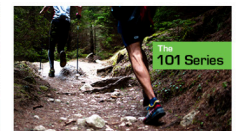
Garland Technology's [TAP into Technology](#) blog provides the latest news and insights on network access, visibility, security design, monitoring and appliance connectivity with expert guest blogs from the security, connectivity world and featured technology partners.



The 101 Series: Filtering TAPs
In our 101 network TAP series, we have explained the functionality of the various network TAPs that are available to gain access to the traffic that is typically found in a network. We have reviewed



The 101 Series: Passive Network TAPs
Companies that are using network monitoring tools – be they for analyzing security threats, packet flow or Key Performance Indicators (KPIs) – all have one thing in common. They need to ensure that



The 101 Series: Active Network TAPs—Where, When and How
Because network connectivity is critical to any security or network monitoring project, people are always asking us which network TAP is right for them. In a recent post, we discussed the ins and

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Foundation of Visibility

Starts with seeing every bit, byte, and packet®

