GARLAND TECHNOLOGY
See every bit, byte, and packet®

DATA SHEET

1U or 2U 1G Modular Packet Broker System

Port-to-Port Aggregator with Filtering

Supports: Breakout | Aggregation | Filtering | Regeneration/SPAN | Bypass TAP Modes

Network test access points (TAPs) are hardware tools that allow you to access and monitor your network. The modular packet broker chassis system features a flexible and scalable design to meet your network needs today and tomorrow.

Design your own 1G chassis with modular TAPs that support breakout, aggregation, filtering, regeneration/SPAN and bypass modes. This modular system allows you to fully deploy and manage your monitoring and security appliances and guarantee 100% network uptime letting you **see every bit, byte and packet**.®

Key Features

- **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 and port
- **Management and Non-Management options**:
  -Management Card: Ethernet with GUI - and - Serial with CLI controller
  -Non-management chassis available; (management card can be added at later date)
- **Port Mapping**: filter allows granular selection of network traffic at layers 2, 3 and 4 of the packet to provide monitoring tools only to the traffic they are designed (or intended) to inspect.
- **Multi-Tier Filtering Supports**: MAC, VLAN, IP, DSCP, TCP, UDP
- Dual internal AC or DC power supplies
- TAP modules are hot swappable, fully configurable and interchangeable
- Accommodates GT legacy modular TAPs
- Network Failsafe recognizes power outages and automatically closes the relay circuitry in less than 8 milliseconds then reconnects the two network devices connected to Ports A & B.
- Supports jumbo frames and passes physical errors.
- Packet slicing and packet injection (aggregate mode for copper network port TAPs).
- 100% secure and invisible; no IP address, no MAC address; cannot be hacked
- Made, tested and certified in USA

APPLICATIONS:

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

SOLUTIONS:

Aggregation / Regeneration

Port mapping between multiple TAPs and ports for aggregation, regeneration or filtering. Aggregate data to a single link or regenerate the traffic up to 4 links for 1U or up to 12 links for 2U.

Multiple analyzers and security tools see and share the same data, which reduces the number of ports required by the monitoring tools and security devices.

Media Conversion

Converting media allows you to use monitoring tools that you already have or use monitoring tools that cost less.

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).

Competitive Edge

- Flexible design - accommodates any 1G network scenario
- Scalable design - add modules as needed
- Remote management with Ethernet GUI (optional)
- Highest density 1G integrated TAP packet broker on the market

TESTED CERTIFIED GUARANTEED

Have Questions?

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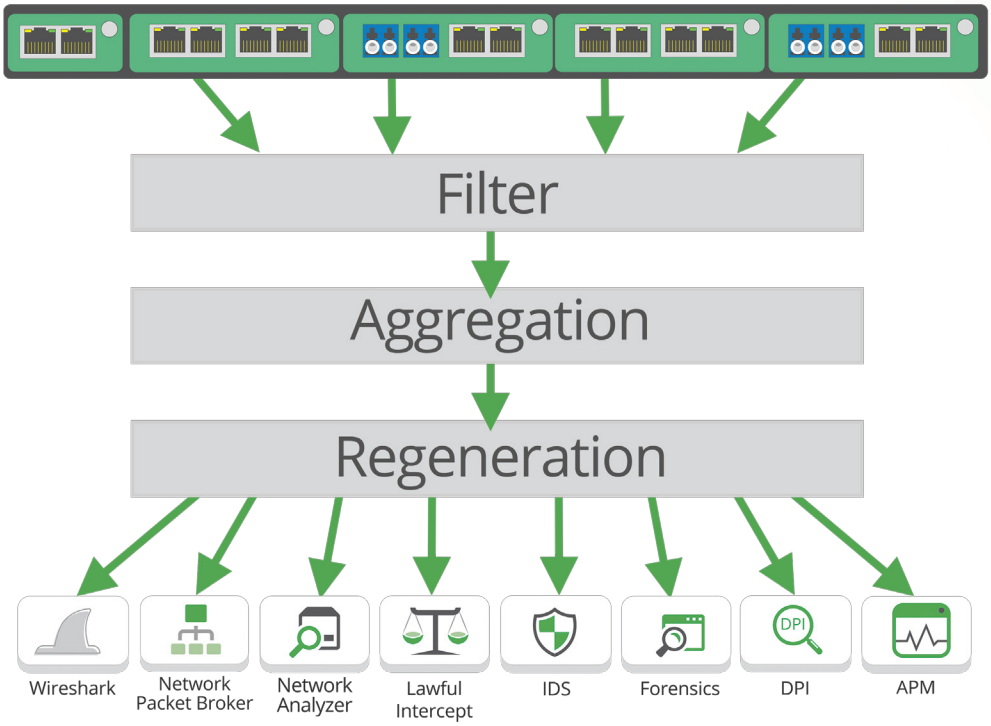
Chassis options

Model #	Chassis/TAPs*	Power Supplies	Voltage	Current (nominal)	Consumption (nominal)	Dimensions (WxHxD)
M1G1ACE	1U; up to 4 TAPs	Dual Internal AC	88-264VAC	.665 Amps @ 120VAC	80 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	36-72VDC	.958 Amps @ 48VDC	46 Watts	
M1G2ACE	2U; up to 12 TAPs	Dual Internal AC	90-264VAC	1.042 Amps @ 120VAC	125 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	36-72VDC	2.7 Amps @ 48VDC	130 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.

Use Case



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	X	X	X	X	N/A	Yes
M1GCSF	10/100/1000M	2 Copper-RJ45	2 SFP	X	X	X	X	N/A	Yes
M1GMCF	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	X	N/A	N/A
M1GMSF	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	X	X	X	X	N/A	N/A
M1GSCF	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	X	N/A	N/A
M1GSSF	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	X	X	X	X	N/A	N/A

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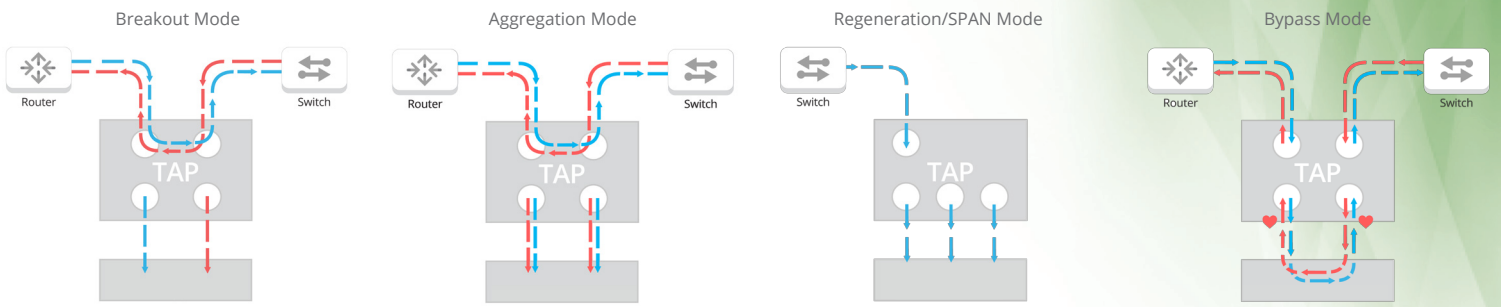
Network Flow



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	X	N/A	N/A	N/A	N/A	Passive
M1GCCB	10/100/ 1000M	2 Copper-RJ45	2 Copper-RJ45	X	N/A	N/A	N/A	N/A	Link Synch with Fail Safe

*Supports Power over Ethernet (POE)

Aggregation 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	X	X	X	N/A	X	Yes	Yes
M1GCSBP	100/ 1000M	2 Copper-RJ45	2 SFP	X	X	X	N/A	X	Yes	Yes
M1GMCA	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	N/A	N/A	N/A	Yes
M1GMSA	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	X	X	X	N/A	N/A	N/A	Yes
M1GSCA	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	N/A	N/A	N/A	Yes
M1GSSA	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	X	X	X	N/A	N/A	N/A	Yes

Bypass TAP options

Model #	Network Speed	Media		Modes					Packet Injection Support	Packet Slicing
		Network	Monitor	Breakout	Aggregation	Regeneration/SPAN	Filtering	Bypass	(in Aggregation mode)	
M1GCCBP	100/ 1000M	2 Copper-RJ45	2 Copper-RJ45	X	X	X	N/A	X	Yes	Yes
M1GCSBP	100/ 1000M	2 Copper-RJ45	2 SFP	X	X	X	N/A	X	Yes	Yes
M1GMCBP	1G	2 SX Multi-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	N/A	X	Yes	Yes
M1GMSBP	1G	2 SX Multi-mode, passive LC-Fiber	2 SFP	X	X	X	N/A	X	Yes	Yes
M1GSCBP	1G	2 LX Single-mode, passive LC-Fiber	2 Copper-RJ45	X	X	X	N/A	X	Yes	Yes
M1GSSBP	1G	2 LX Single-mode, passive LC-Fiber	2 SFP	X	X	X	N/A	X	Yes	Yes

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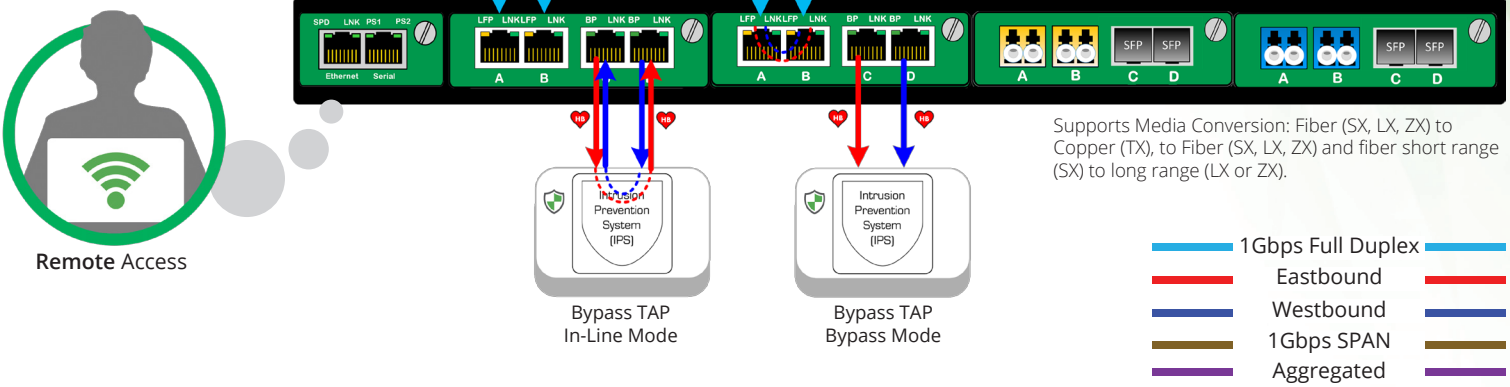
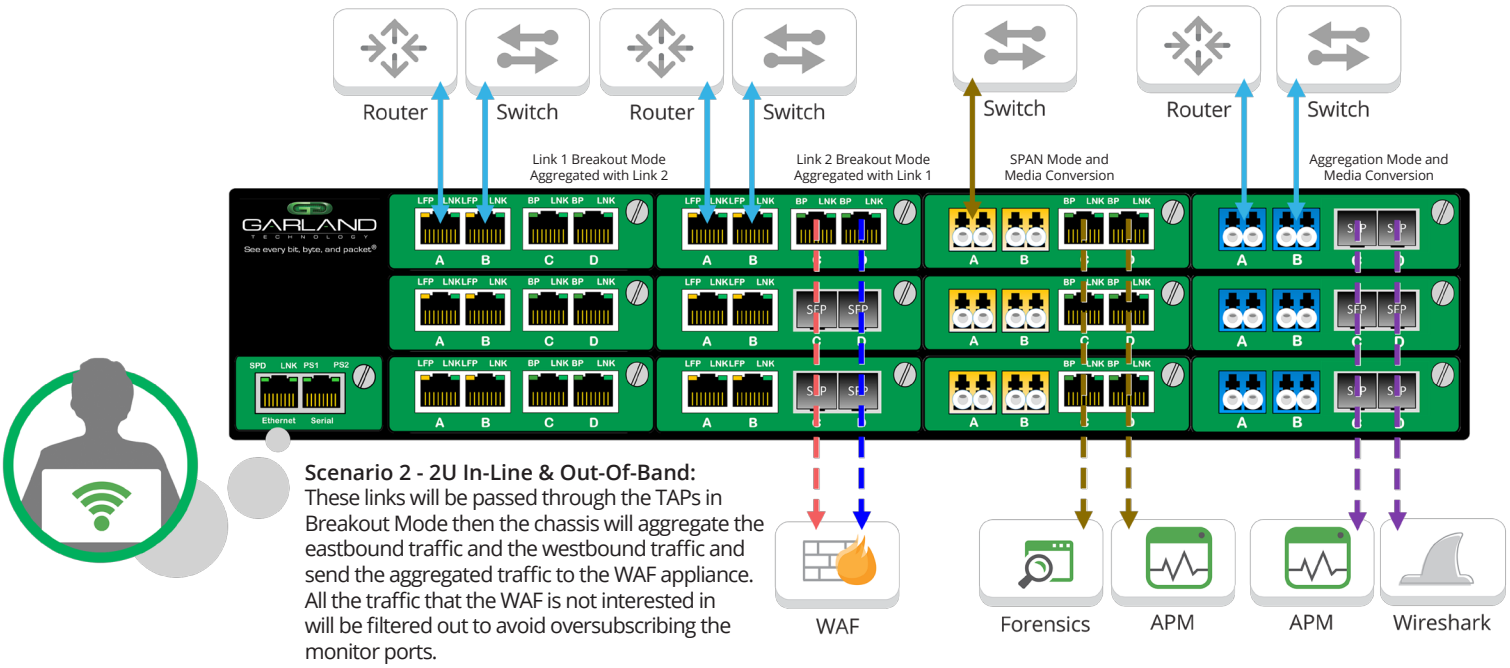
Design Your Own 1U or 2U Chassis System



Scenario 1 - 1U In-Line:
The Bypass TAP shows the TAP in it's normal mode (In-Line). The TAP places a heartbeat packet on the traffic going into the C and D ports. If the heartbeat packet is not returned to the TAP, the TAP will go into Bypass Mode bypassing the IPS appliance and keep the link flowing (see traffic flow of TAP 2). Once the appliance comes back on-line, it will return the heartbeat packets to the TAP and the TAP will go back to the in-line mode.

Supports Media Conversion: Fiber (SX, LX, ZX) to Copper (TX), to Fiber (SX, LX, ZX) and fiber short range (SX) to long range (LX or ZX).



Scenario 2 - 2U In-Line & Out-Of-Band:
These links will be passed through the TAPs in Breakout Mode then the chassis will aggregate the eastbound traffic and the westbound traffic and send the aggregated traffic to the WAF appliance. All the traffic that the WAF is not interested in will be filtered out to avoid oversubscribing the monitor ports.