

Aster XGB A-818, A-820 Session eXpert GTP Load Adapter

Technical Data Sheet

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Product Description

GTP Filtering and Sampling

Aster XGB A-818/A-820 Load Balancer and Adapter **consistently reduce the amount of traffic to the monitoring tools**, while keeping the integrity of the user data flows intact.

They implement a **powerful GTP correlation engine**, which performs stateful correlation of GTP-C with GTP-U messages, based both on the subscriber ID (IMSI) and the corresponding tunnel ID (TEID), with session-aware filtering and sampling capabilities.

Aster XGB A-818/A-820 can filter GTP traffic session-based and feed the monitoring tools with the amount of traffic they support, at the same time sending all the flows belonging to the same subscriber to the same probe.

Furthermore they perform **session aware sampling**, sending the requested amount of traffic to the output ports by keeping intact subscriber's flows. Sampling percentage available are 25%, 50%, 75%.

Key features

- Up to **2x100Gb/s and 20x1/10Gb/s or 40x1/10Gb/s** input/output balancing ports,
- **Manage 100Gb/s** total traffic and up to **10 million concurrent tunnels**,
- **Perform stateful correlation, load balancing, session aware filtering and sampling** of GTP traffic,
- **Recognize "no GTP"** traffic and balance it towards some specific monitoring ports or to the same ones used for the GTP traffic,
- **Network protocols and interfaces:**
 - * GTPv1-C, GTPv2-C, GTPv1-U,
 - * 2G,3G,4G interfaces,
 - * IPV4 and IPV6 supported,
 - * IP packet fragmentation managed
- **Device Management:**
 - * CLI and GUI for local and remote management,
 - * Real time statistics, counters and SNMP alarms.

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Highlights

- **Reduce CAPEX investments** on traditional monitoring solution, as you can keep using your current tools by simply reducing their input load;
- **Ensure complete visibility into subscriber experience** as XGB Load Adapter can filter all the incoming traffic performing session-aware correlation of the whole GTP traffic;
- Support **100Gb/s interfaces**, which are currently used by service providers to cope with ever growing traffic.
- **Easy to order**, all ports enabled, no additional licences needed

Filtering Criteria

- IMSI White/Black List
- GTP
- GTP-U
- GTP-C
- GTP-Cv1
- GTP-Cv2
- GTP-V1
- GTP-V2
- GTP Correlated Packets
- APN White/Black List
- Inner IP White/Black List
- VoLTE

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Aster A-818/A-820 XGB GTP Load Balancer – Technical Specification

	Aster A-818 XGB GTP Load Balancer	Aster A-820 XGB GTP Load Balancer	
Input/Output Capabilities			
Input/Output ports	20x1/10Gb/s ports; 4x10Gb/s ports; 4x40Gb/s ports to be used as 16x10Gb/s ports, through breakout adapter	2x100Gb/s ports; 20x1/10Gb/s ports	
Performances	Manage 100Gb/s total traffic and up to 10 million concurrent tunnels in 1U space		
Management			
Management port	1 x 10/100/1000 Mb/s with RJ45 connector		
Protocols	IPV4, IPV6, SNMPv2, TACACS+, HTTPS		
Statistics and Alarms	Real time statistics and counters available for each input/output port SNMP alarms		
Transceiver type			
Copper (SFP)	1000 Base T		
Singlemode (SFP/SFP+/QSFP+)	1000 Base LX (1310nm)/ 10Gb/s Base LR (1310nm)/ 40Gb/s Base LR-4 (1310 nm)	1000 Base LX (1310 nm)/ 10Gb/s Base LR (1310 nm)/ 100G Base LR-4 (1310 nm)/ 100Gb/s Base PSM4 (1310nm)	
Multimode (SFP/SFP+/QSFP+)	1000 Base SX (850nm)/ 10Gb/s Base SR (850 nm)/ 40Gb/s Base SR-4 (850 nm)	1000 Base SX (850 nm)/ 10Gb/s Base SR (850 nm)/ 100Gb/s Base SR-4 (850 nm)	
Breakout cable			
Singlemode	Breakout cable 1x40Gb/s (MPO/MTP connector) to 4x10Gb/s (8xLC connectors), OS1/OS2, Single	NA	
Multimode	Breakout cable 1x40Gb/s (MPO/MTP connector) to 4x10Gb/s (8 x LC connectors), OM3, Multi-	NA	
Breakout rack adapter			
Rack chassis	1U 19" chassis hosting up to 8 AML-14-xM adapters * *it can be used in mixed configuration as it can host both PluriTAP T-20 optical tap modules and AML-14 adapter modules	NA	
Singlemode (AML-14-SM)	Adapter 1x40Gb/s (MPO/MTP connector) to 4x 10Gb/s (8 x LC connectors) OS1/OS2, Single Mode, (1310 nm) 9/125 um; MPO/MTP connector cable required	NA	
Multimode (AML-14-MM)	Adapter 1x40Gb/s (MPO/MTP connector) to 4x 10Gb/s (8 x LC connectors), OM4, Multimode (850 nm) 50/125 um; MPO/MTP connector cable required	NA	
Operating			
<ul style="list-style-type: none"> Operating temperature: 0°C to 40°C Relative humidity: min 0% max 95% not condensing 	Power		Dimensions
	<ul style="list-style-type: none"> 90-264 Vac ; 40-72 Vdc Default redundancy with hot swap power modules 	<ul style="list-style-type: none"> Chassis 1U surface or 19" rack mount, 483 mm W, 406 mm D, 44 mm H Weight: (fully equipped): 10 kg (22 lbs) 	Regulatory
			<ul style="list-style-type: none"> FCC Part 15, Class A CE Mark UL 60950-1; EN 60950-1

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Aster XGB A-818 GTP Load Balancer – Ordering Information

A-818-FL-2416G	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 4x10G in ports, 4x40G output ports (SFP not included).
A-818-FL-2812G	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 4x10G in ports, 1x40G input ports, 3x40G output ports (SFP not included).
A-818-FL-3208G	GTP Balancer: 1RU chassis, 20 x 1/10G in ports, 4x10G in ports, 2x40G input ports, 2x40G output ports (SFP not included).
PS1-3/850-AC	Redundant power supply AC
PS1-5/850-DC	Redundant power supply DC
SFP-GT/J	1000 Base T Copper with RJ-45 connector
SFP-GS/L-24	1000 Base SX (850nm) Multi-Mode with LC connector
SFP-FS/L-30	100 Base-FX (1310 nm) Multi-Mode with LC connector
SFP-GL/L-23	1000 Base LX (1310nm) Single-Mode with LC connector
SFP-GW/L-24	1000 Base ZX (1550nm) Single-Mode with LC connector
SFP+-HR/L-11	10 GE Base-SR (850 nm) Multi-Mode with LC connector
SFP+-HP/L-14	10 GE Base-LR (1310 nm) Single-Mode with LC connector
SFP+-HQ/L-15	10 GE Base-ER (1550nm) Single-Mode with LC connector
QSFP+-SR/M-4	40G Parallel Fiber - Multi-Mode (850nm) with MPO/MTP connector; when used as 4X10G, it requires MPO/MTP connector to 8 x LC connectors adapter or breakout cable
QSFP+-LR/M-4	40G Parallel Fiber - Single-Mode (1310nm) with MPO/MTP connector; when used as 4X10G, requires MPO/MTP connector to 8 x LC connectors adapter or breakout cable
QSFP28-SR/M-4	100G Parallel Fiber - Multi-Mode (850nm) with MPO/MTP connector
QSFP28-PSM4/M-4	100G Parallel Fiber- Single-Mode(1310nm) with MPO/MTP connector
QSFP28-LR4/L	100G LAN-WDM Single-Mode (1310nm) with LC connector
CML-14-SM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Single-Mode 1310nm, OS2, 9/125 um; 2m length
CML-14-3-MM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Multi-Mode 850nm, OM3, 50/125 um, 2m length
CML-14-4-MM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Multi-Mode 850nm, OM4, 50/125 um, 2m length

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Aster XGB A-820 GTP Load Balancer — Ordering Information

A-820-FL-02C08X-12X	GTP Balancer: 1RU chassis, fully licenced, 2 x 100G in ports, 8 x 1/10G in ports, 12 x 10G output ports (SFP not included).
A-820-FL-02C04X-16X	GTP Balancer: 1RU chassis, fully licenced, 2 x 100G in ports, 4 x 1/10G in ports, 16 x 10G output ports (SFP not included).
A-820-FL-20X-02C	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 2 x 100G output ports (SFP not included).
PS1-3/850-AC	Redundant power supply AC
PS1-5/850-DC	Redundant power supply DC
SFP-GT/J	1000 Base T Copper with RJ-45 connector
SFP-GS/L-24	1000 Base SX (850nm) Multi-Mode with LC connector
SFP-FS/L-30	100 Base-FX (1310 nm) Multi-Mode with LC connector
SFP-GL/L-23	1000 Base LX (1310nm) Single-Mode with LC connector
SFP-GW/L-24	1000 Base ZX (1550nm) Single-Mode with LC connector
SFP+-HR/L-11	10 GE Base-SR (850 nm) Multi-Mode with LC connector
SFP+-HP/L-14	10 GE Base-LR (1310 nm) Single-Mode with LC connector
SFP+-HQ/L-15	10 GE Base-ER (1550nm) Single-Mode with LC connector
QSFP+-SR/M-4	40G Parallel Fiber - Multi-Mode (850nm) with MPO/MTP connector; when used as 4X10G, it requires MPO/MTP connector to 8 x LC connectors adapter or breakout cable
QSFP+-LR/M-4	40G Parallel Fiber - Single-Mode (1310nm) with MPO/MTP connector; when used as 4X10G, requires MPO/MTP connector to 8 x LC connectors adapter or breakout cable
QSFP28-SR/M-4	100G Parallel Fiber - Multi-Mode (850nm) with MPO/MTP connector
QSFP28-PSM4/M-4	100G Parallel Fiber- Single-Mode(1310nm) with MPO/MTP connector
QSFP28-LR4/L	100G LAN-WDM Single-Mode (1310nm) with LC connector
CML-14-SM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Single-Mode 1310nm, OS2, 9/125 um; 2m length
CML-14-3-MM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Multi-Mode 850nm, OM3, 50/125 um, 2m length
CML-14-4-MM-2m	Breakout cable MTP/MPO connector (Female) to LC connectors 4 x 10G (Male), Multi-Mode 850nm, OM4, 50/125 um, 2m length