

Aster XGB A-718, A-720 Session eXpert GTP Load Balancer

Technical Data Sheet

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Product Description

GTP Correlation and Balancing

Microtel Aster XGB (eXpert GTP Balancer) A-718/A-720 allow telecom operators to **monitor the whole incoming GTP traffic**, simply by adding new probes to the existing ones, and make the most of them **thanks to Aster XGB A-718/A-720 session aware balancing capabilities**.

Aster XGB A-718/A-720 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 load balancing distribution to the output port.

While Aster A-718 manages **up to 40x1/10Gb/s ports**, Aster A-720 has the capability **to manage also 2x100Gb/s interfaces**, key feature to cope with deployments where NEs uses 100Gb/s interfaces.

Key features

- Up to **2x100Gb/s and 20x1/10Gb/s or 20x1/10Gb/s and 20x10Gb/s** input/output balancing ports,
- **Manage 100Gb/s** total traffic and up to **10 million concurrent tunnels**,
- Identify and correlate the subscriber's traffic flows inside the GTP tunnels, with **session-aware load balancing** to the output ports,
- **Perform stateful correlation** of GTP-C with GTP-U messages, based both on the subscriber ID (IMSI) and the related tunnel ID (TEID),
- **Recognize "no GTP"** traffic and balance it towards some specific monitoring ports or to the same ones used for the GTP traffic,
- **Device Management:**
 - * CLI and GUI for local and remote management,
 - * Real time statistics, counters and SNMP alarms.
- **Network protocols and interfaces:**
 - * GTPv1-C, GTPv2-C, GTPv1-U,
 - * 2G, 3G, 4G interfaces,
 - * IPV4 and IPV6 supported,
 - * IP packet fragmentation managed

Aster A-718 XGB GTP Load Balancer

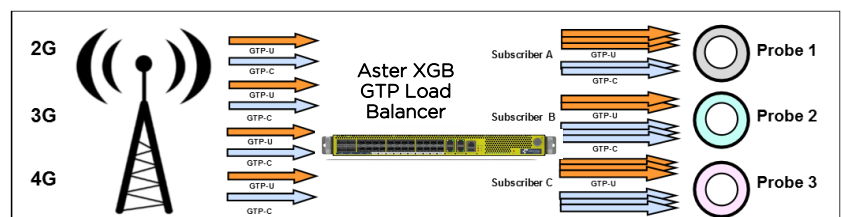


Aster A-720 XGB GTP Load Balancer



Highlights

- **Face the dramatic explosion of GTP data traffic, also in case it is overcoming 100Gb/s** in the same site, **by leveraging your existing Monitoring System**, as you can simply add more probes to manage ever growing data loads;
- **Ensure complete visibility into subscriber experience** as XGB balances all the incoming traffic (GTP & no-GTP), performing session-aware correlation of the GTP part;
- **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.



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Aster A-718/A-720 XGB GTP Load Balancer – Technical Specification

	Aster A-718 XGB GTP Load Balancer	Aster A-720 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 ports	1 x 10/100/1000Mb/s with RJ45 connectors		
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+/QSFP28)	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)/ 100Gb/s Base LR-4 (1310 nm)/ 100Gb/s Base PSM4 (1310nm)	
Multimode (SFP/SFP+/QSFP+/QSFP28)	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 Mode, (1310 nm) 9/125 um; 2m lenght	NA	
Multimode	Breakout cable 1x40Gb/s (MPO/MTP connector) to 4x10Gb/s (8 x LC connectors), OM3, Multimode (850 nm) 50/125 um; 2m lenght	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 	<ul style="list-style-type: none"> 90-264 Vac ; 40-72 Vdc Default redundancy with hot swap power modules Max. power consumption: 400W 		<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 CAN/CSA-C22.2 60950-1 			

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Aster A-718 XGB GTP Load Balancer – Ordering Information

A-718-FL-2416G	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 4x10G in ports, 4x40G output ports (SFP not included).
A-718-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-718-FL-3208G	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 4x10G in ports, 2x40G input ports, 2x40G output ports (SFP not included).
A-7xx-FL-UPGto8xx	Software Licence to upgrade A-7xx capabilities to A-8xx
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 A-720 XGB GTP Load Balancer — Ordering Information

A-720-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-720-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-720-FL-20X-02C	GTP Balancer: 1RU chassis, fully licenced, 20 x 1/10G in ports, 2 x 100G output ports (SFP not included).
A-7xx-FL-UPGto8xx	Software Licence to upgrade A-7xx capabilities to A-8xx
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