

In traditional data center applications, devices are used to sample network traffic. As traffic increases, there is a growing requirement for extended performance monitoring.

The Advanced Features provides a flexible packet time stamping function. The time stamp function is set up to insert a new 30 byte Layer 2 header before the original DMAC address. The Time Stamp Layer 2 header is defined as follows.



The time stamping is performed before the packet enters the switching chip. This function supports the standard Time of Day format and is accurate down to 8 nano-second resolution. Software can distinguish these packets by the new EthType that has been added into the packet. The Time Stamp EthType is defined as 0xff12.

When Layer 3 routing or filtering is to be performed, the additional Time Stamp header needs to be removed.

Garland Technology has produced a Wireshark plugin that will capture and display these packets as shown below.

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	1	0.0000	00000	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 +	0	Len=2	2	
	2	0.0000	07368	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	3	0.0000	14712	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	- 4	0.0000	22080	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	5	0.0000	29448	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	6	0.0000	36792	0	.0.0	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	7	0.0000	44160	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	8	0.0000	51528	0	.0.0	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	9	0.0000	58872	0	.0.0	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	10	0.0000	66240	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	11	0.0000	73608	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	12	0.0000	80952	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 →	0	Len=2	2	
	13	0.0000	88320	0	.0.(	9.0				0.0	0.0			UDP	1	02	0 +	0	Len=2	2	
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*This document discusses the procedure to enable Timestamp. The procedure to apply Timestamp is discussed in the TAP group guide.* 



## Timestamp Guide PacketMAX: Advanced Features | AF1G52 | 3.0.15

## **Enable Timestamp**

- 1. Select TAP Management.
- 2. Select TAP Group Table.
- 3. Select Timestamp.

The Timestamp over Ethernet panel will appear.

Timestamp Over Ethernet		×
Timestamp Enable	off	
		✓ OK ¥ Close
4. Select Timestamp Enable.		

, Timestamp Over Ethernet		×
Timestamp Enable	on	
Dst-mac f093.c5a1.a1a1	Src-mac         1093.c5b2.b2b2         Type         0xff12	l
	✓ ОК ХСІ	ose

- 5. Enter the Dst-mac for the new Time Stamp L2 segment.
- 6. Enter the Src-mac for the new Time Stamp L2 segment.
- 7. Enter the Ether Type for the new Time Stamp L2 segment, (0xff12).
- 8. Select OK.

Timestamp may be applied to any egress port(s) when a TAP Group is created.