

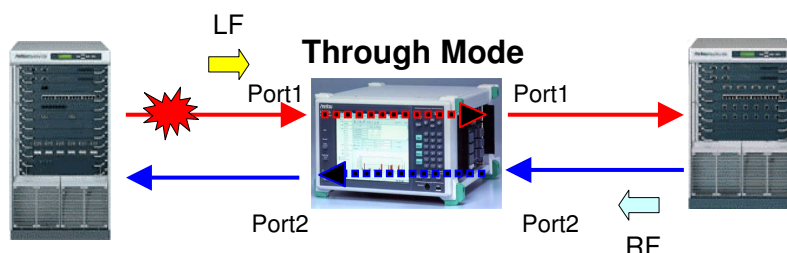
10GbE Link Fault Signaling Analysis

MD1230A-16 / MU740701A-16

Link Fault Signaling

■ Link Fault Signaling

Anritsu provides Link Fault Signaling (LFS) test for 10-Gigabit Ethernet (10GbE) MD1230A-16 / MU740701A-16. As 10GbE is subject to use on WAN (Wide Area Network), the failure detection is required. When failures are detected in physical layer or transmission media of 10GbE, LFS notifies the failures using **LF (Link Fault)** and **RF (Remote Fault)**.



■ Software Option MD1230A-16 / MU740701A-16

MD1230A-16 / MU740701A-16 is an option of MD1230A family IP measuring instruments. LFS and another IP measuring functions of MD1230A family can be used simultaneously.

■ Through Mode

MD1230A family supports Through Mode function that can confirm sequences directly between network devices without external tapping module.

■ Counter and Alarm Detect

[Transmitted LF Signal][Transmitted RF Signal][Received LF Signal][Received RF Signal] that can count failures on 10GbE network are added to Counter items.

When LFS are detected as Alarm LED lights up.

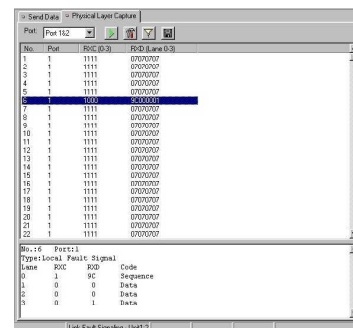
Transmitted LF Signal	2,599	73,850
Transmitted RF Signal	20,136	97,182
Received LF Signal	4,680	50,441
Received RF Signal	9,198	46,468

Alarm Status: Alarm (lit), Error, P.Fail, History, H.Reset

■ Capture and Decode

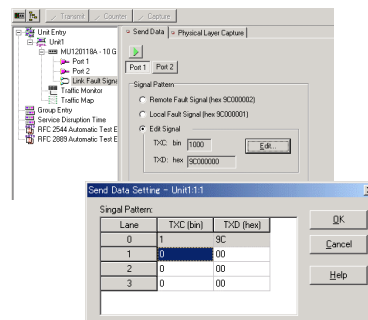
Capture and Decode function of LFS can capture not only LFS signals like LF and RF, but all XGMII signals like Idle and Start.

Capturing Code data of XGMII can be detected by using with trigger function.

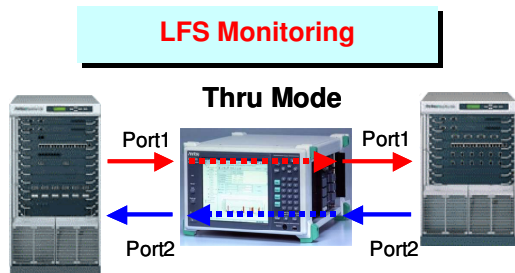


■ XGMII Data Transmission

Transmission function supports 4 byte XGMII sequences data in addition to LF and RF.



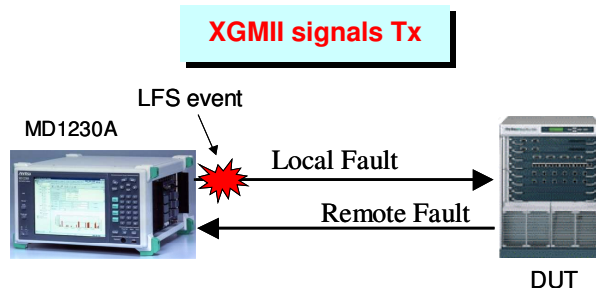
■ Application Examples



Capture and Decode functions of LFS allows

- Check LFS sequences
- Verification of inter operability
- Quick Troubleshooting

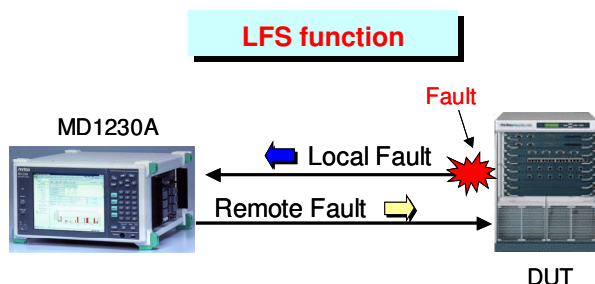
Using Counter function, LFS signal occurrence of measuring network and failure detection for 10GbE can be measured.



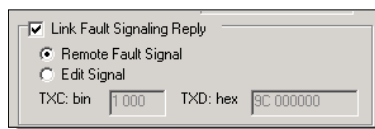
Occurrence of LF, RF allows

- Check LFS sequence
- Perform abnormal test

As XGMII sequence data can be transmitted, it is available for verification of DUT original functions.



LFS Reply can set RF ON/OFF. As XGMII sequence data can set as Reply data, it is available for verification of DUT original functions.



■ Specifications

MD1230A-16 / MU740701A-16		Link Fault Signaling	
Model	MD1230A, MT7407A	Capture trigger	4 byte pattern
Module	MU120118A	Data transmission	LF, RF, XGMII sequence code
Software	Ver3.1 or later	LFS Reply	ON/OFF.settable. Reply signals are selected from RF and XGMII sequence code
Connection	Normal, Through, Monitor		
Data capture	Max 512 events / port	Data save	Binary, TXT (CSV)

■ Ordering Information

Model / Order No.	Item	Comment
MD1230A-16 MX123001A-16	Option Link Fault Signaling Link Fault Signaling	For MD1230A For MT7407A

This option requires MU120118A, which is the 10 gigabit Ethernet module.



Specifications are subject to change without notice.

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