AQ1300 Series
1G/10G ETHERNET MULTIFIELD TESTER
New Features

ITU-T Y.1564 Test Function

A new function compliant with Y.1564 of the ITU-T recommendations is added to the AQ1300 series which includes the test standards of RFC2544, and ETHER-OAM (IEEE 802.1ag).

Overview

ITU-T Y.1564 is a methodology for measuring the performance of the Ethernet service, defined by the ITU-T recommendations. It saves testing time by simultaneously performing line tests (throughput, frame loss, latency and packet jitter) which used to be conducted individually as the RFC2544 test. In addition, simultaneous testing for multiple services allows measuring influence between actual services.Two different kinds of tests are added to the AQ1300 series as the function for ITU-T Y.1564: the configuration test examining the speed and burst size per contracted service and the performance test measuring guaranteed bandwidth of multiple services simultaneously. The AQ1300 conducts pass/fail judgment according to the specified thresholds of the information rate (IR), frame loss (FL), frame transfer delay (FTD) and frame delay variation (FDV).
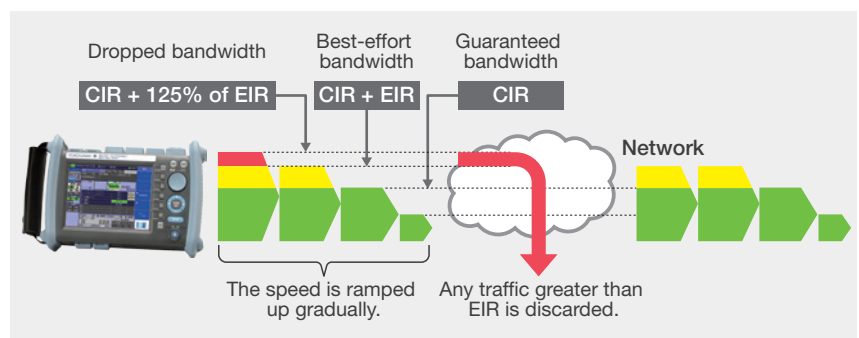
Configuration Test

Ramp test

This device outputs signals ramping up traffic rate gradually and measures the guaranteed rate and the securing rate.
- CIR: Committed information rate
- EIR: Excess information rate
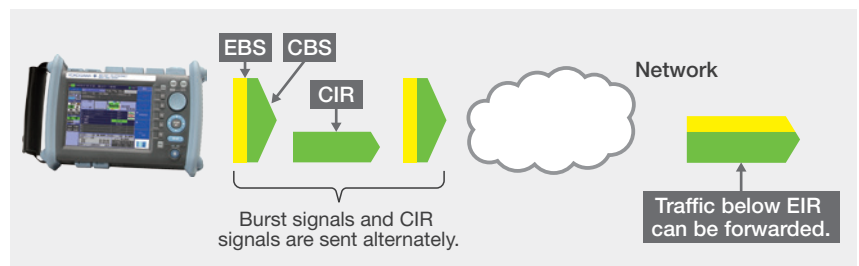- Traffic Policing: CIR+125% of EIR

Ramp test

Burst size test

This device outputs burst frame signals (successive frame signals) at regular intervals and measures the burst bandwidth guaranteed size and the burst bandwidth securing size.
- CBS: Committed burst size
- EBS: Excess burst size

Burst size test

Performance Test

The AQ1300 sends frames within CIR of selected services at the same time and confirms whether all traffic is sent without being discarded. This test can evaluate the traffic quality for the same period for up to eight services. Setting operation is simple with pull down menues. Moreover, since several frame lengths can be set at random in one service (EMIX), this device can reproduce more realistic loads.
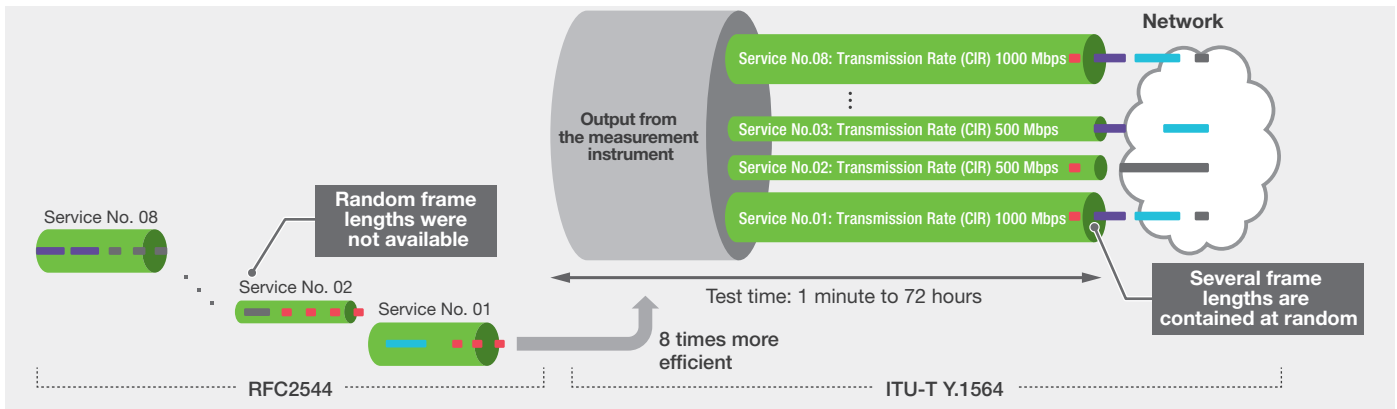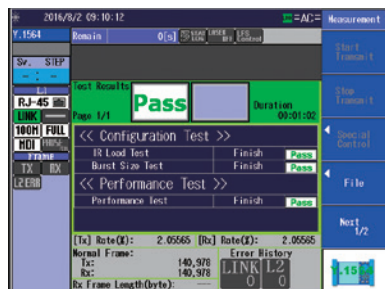

Illustration of the performance test

Total measurement result

Pass/fail indication enables intuitive judgment.
The results of the configuration and performance tests are displayed simultaneously.

Pass/Fail indication

Pass or fail appears, respectively, when a measured value is within or our of specified judgment value at the end of measurement.

Total test results display

Pass/fail list per service

The stability of each bandwidth guaranteed value is displayed per service. The results of the configuration and performance tests can be seen in tabular form.

Pass/fail indication per service

Individual measurement result

The whole data can be viewed easily thanks to the table showing results per service.
Pass/fail indication enables intuitive judgment.

Burst size result display

Frame loss, frame transfer delay and frame delay variation are shown in numerical values.

Burst size measurement result

Performance result display

Frame loss, frame transfer delay and frame delay variation are shown in numerical values.

Performance measurement result