

## J-Profiler – Ethernet/IP Traffic Explorer



### Ordering Information:

10M to 1GE – CTLSJPROFILER (-U1)

### Use Case:

Troubleshooting Carrier Ethernet and IP field networks

### Intended Audience

- Business Service and Central Office technicians responsible for circuit installation, services turn-up, and fault troubleshooting.
- Professional Services and Managed Service Engineers responsible for the maintenance, troubleshooting and evolution of end-customer access networks.
- Enterprise and Government network professionals responsible for circuit and network installation and fault analysis.
- **Applications:** Identifying and resolving Ethernet or IP problems in metro aggregation networks using auto-discovery of live traffic streams.

### Solution Description

J-Profiler is a test option for the T-BERD<sup>®</sup>/MTS-6000A Multi-Services Application Module (MSAM) and T-BERD<sup>®</sup>/MTS-8000 Dual Module Carrier (DMC) that provides automatic detection of up to 128 unique traffic streams for 10 Mbps to 1 Gbps links. As a passive, hardware-based monitor application, it discovers Ethernet/IP traffic organized by VLAN, MAC, and IP Addresses or Ports and displays the bandwidth utilization of each stream, allowing a view of top talkers.

### Value Proposition

For technicians who troubleshoot Ethernet and IP circuits, the J-Profiler test option provides valuable insight and simplifies complex issues by illustrating the full network picture and characterizing which customers, services, or applications are consuming bandwidth. By instantly detecting and exposing network utilization in a user-configurable manner, J-Profiler is a beneficial first step to troubleshooting complex networks quickly and efficiently. By providing time-saving high-level visibility, it functions seamlessly as a complementary investigative tool to the in-depth JDSU Capture, Decode and J-Mentor protocol analysis test options.

### Feature/Benefit Summary

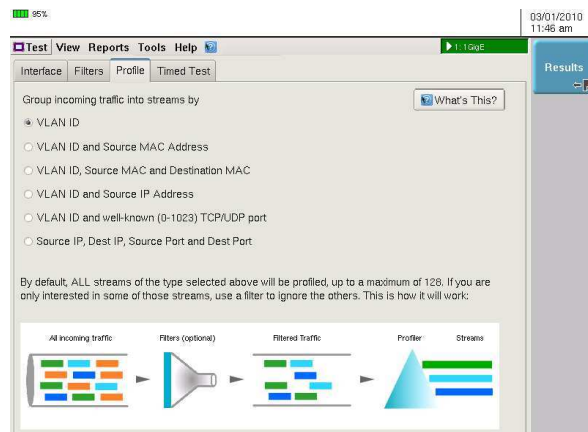
Feature	Description	Advantage	Benefit
Optional Filter Selections	Specify filters by traffic type, address, VLAN or port	Troubleshoot customer specific traffic flow/service	Eliminate excess information to narrow scope prior to stream discovery
Traffic Stream Classifications	Select stream organization by VLAN, MAC, IP Address, or Ports	Multiple available classifications encompassing ALL network traffic types	Ensures flexible analysis capabilities and ubiquitous usage
Auto-Stream Discovery	Detects and displays up to 128 live traffic streams	Analyze key traffic information and utilization in real time	View top talkers by customers, services, or applications
Customizable Display Table	Sort by any parameter, rearrange information, and hide or display columns	Adjustable viewing options to suit various personal preferences	Provides organized, simplified, and clear picture of complex network traffic streams

## Use Case: Passive Monitoring From a Single Port

The T-BERD/MTS-6000A MSAM and T-BERD/MTS-8000 DMC can be used to troubleshoot Ethernet and IP problems by connecting to a mirror or spare test port on a switch or router. In this scenario, the test set is configured in a passive monitor mode and is used to auto-discover live traffic streams up to 1 G that are forwarded to this mirror port by the switch. The discovered streams can then be analyzed on the test set, displaying key traffic information such as VLAN ID, MAC/IP addresses, and Port Numbers, as well as the bandwidth utilization of each stream.



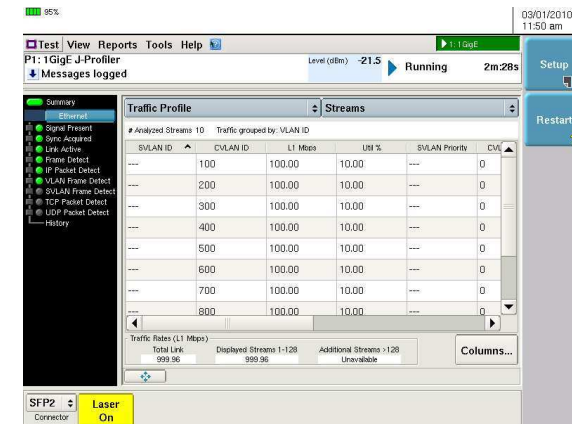
## Easy J-Profiler Setup and Results



The screenshot shows the configuration interface for the J-Profiler application. The 'Filters' tab is active, showing options for grouping incoming traffic into streams. The selected filter is 'VLAN ID'. Below the filter options, a diagram illustrates the workflow: 'All incoming traffic' is filtered to 'Filtered Traffic', which is then processed by the 'Profiler' to generate 'Streams'.

There is only one set-up configuration required for the J-Profiler application: the selection of desired traffic profile or classification. Filters can be optionally set on the Filters tab to further narrow down the discovered streams.

The profiled traffic streams are auto-detected and displayed in a customizable table, revealing key network information and bandwidth utilization in real time. Click "Restart" to refresh stream discovery.



The screenshot shows the results interface of the J-Profiler application. The 'Streams' tab is active, displaying a table of discovered traffic streams. The table is grouped by VLAN ID and shows the following data:

VLAN ID	CVLAN ID	LI Miss	URI %	S/VLAN Priority	CMI
100	100.00	100.00	10.00	---	0
200	100.00	100.00	10.00	---	0
300	100.00	100.00	10.00	---	0
400	100.00	100.00	10.00	---	0
500	100.00	100.00	10.00	---	0
600	100.00	100.00	10.00	---	0
700	100.00	100.00	10.00	---	0
800	100.00	100.00	10.00	---	0

Summary statistics at the bottom of the table:

- Total Link: 999.96
- Displayed Streams: 1-128
- Additional Streams: >128 Unavailable

## FAQ

*Q: Is J-Profiler an industry standard term?*

A: J-Profiler is the JDSU brand name of the traffic explorer or auto-discovery feature. The test set complies with Ethernet and IP industry standards (including 802.3 for Ethernet and RFC 791/793 for IPv4 and TCP) used to identify, classify, and display Ethernet IP traffic.

*Q: When or why would I choose the different profile or classification options?*

A: That depends on what type of traffic is resident on the network, as well as how you want the traffic classified. For example, if your network uses VLANs to separate customers or services, you can choose "VLAN IDs" to discover all VLANs on that network link and see utilization by each unique VLAN ID. Alternatively, you can select "VLAN ID and well-known TCP/UDP Ports" to view VLAN utilization of services such as http, ftp, and email. Or, you can select "Source IP, Dest IP, Source Port and Dest Port" to view all TCP conversations and their corresponding bandwidths.

*Q: What is the difference between a profile (or classification) and a filter?*

A: A profile (or classification) is a required selection which determines how the live traffic will be grouped into streams and displayed on the test set. The filters are optional and can be set to filter on a specific VLAN, address, or Port to narrow down the discovered results. If a filter is selected, J-Profiler will first apply the filter to all incoming traffic and then profile (or classify) all filtered traffic into streams. If a filter is not selected (the default configuration), all incoming traffic will be profiled (or classified) into streams.

*Q: Is this a software or hardware upgrade to existing units in the field?*

A: J-Profiler is a software upgrade that applies to all MSAM and DMC hardware configurations.

*Q: Are there prerequisites for this feature?*

A: Yes. The J-Profiler test option requires the Ethernet option - CT10M1GE.