# VeEX

### **Multi-Service Test Sets**

Feature Comparison | Apr 2015

| TEST FEATURES                           | RXT-1200 | TX300s        | TX300s Platform |          | TX100+ series |              |  |  |
|---|----------|---------------|-----------------|----------|---------------|--------------|--|--|
|   | RXT-3000 | 300s          | 320s            | TX150+   | TX130M+       | TX130+       |  |  |
| ΟΤΝ                                     |          |               |                 |          |               |              |  |  |
| OTU2e and OTU1e (11G)                   | O Single | O Single/Dual | O Dual          |          |               |              |  |  |
| OTU2 (10.7G)                            | O Single | O Single/Dual | O Dual          |          |               |              |  |  |
| OTU1 (2.7G)                             | O Single | O Single/Dual | O Dual          |          |               |              |  |  |
| ODU0 and ODUflex                        | 0        | 0             | 0               |          |               |              |  |  |
| Service Disruption and APS              | •        | •             | •               |          |               |              |  |  |
| Overhead Analysis and Generation        | •        | •             | •               |          |               |              |  |  |
| SDH/SONET                               |          |               |                 |          |               |              |  |  |
| STM-64/OC192 (10G)                      | O Single | O Single/Dual | O Dual          |          |               |              |  |  |
| STM-16/4/1/0 - OC-48/12/3/1             | O Single | O Single/Dual | O Dual          | ○ Single |               |              |  |  |
| Tributary Scan                          | •        | •             | •               | •        |               |              |  |  |
| Service Disruption and APS              | 0        | 0             | 0               | 0        |               |              |  |  |
| Overhead Analysis and Generation        | •        | •             | •               | •        |               |              |  |  |
| Pointer Test Sequences                  | 0        | 0             | 0               | 0        |               |              |  |  |
| Tandem Connection Monitoring            | 0        | 0             | 0               | 0        |               |              |  |  |
| STM-1/OC-3 Jitter Tests                 | 0        | 0             | 0               | 0        |               |              |  |  |
| PDH/DSn                                 |          |               |                 |          |               |              |  |  |
| E1/DS1 (1.5M, 2M)                       | O Single | O Single/Dual | ○ Single        | O Dual   | O Dual        | O Dual       |  |  |
| E3 (34M)                                | O Single | O Single/Dual | O Single        | O Single | O Single      | O Single     |  |  |
| DS3 (45M)                               | O Single | O Single/Dual | O Single        | O Dual   | O Dual        | O Dual       |  |  |
| E4 (140M)                               | O Single | O Single/Dual | O Single        | O Single | - Duui        | <b>D</b> ddi |  |  |
| E1/DS1, E3/DS3 Jitter Tests             | 0        | O             | 0               | O        | 0             | 0            |  |  |
| E1/DS1, E3/DS3 Pulse Mask Analysis      | 0        | 0             | 0               | 0        | 0             | 0            |  |  |
| E1 APS Service Disruption               | •        | •             | •               | 0        | 0             | 0            |  |  |
| E1 WAN Ping Test                        |          |               |                 |          |               | 0            |  |  |
| DS1 Multi-BERT (USA)                    | •        | •             | •               | •        |               | 0            |  |  |
| ISDN PRI                                |          | 0             | 0               | 0        | 0             | 0            |  |  |
| VF Measurement and Generation           |          | 0             | 0               | 0        | 0             | 0            |  |  |
| G.703 64k Codirectional (International) |          |               |                 | 0        |               | 0            |  |  |
| Datacom (International)                 |          |               |                 |          |               | 0            |  |  |
| Ethernet/IP                             |          |               |                 |          |               | U            |  |  |
| 10G LAN/WAN                             | O Cingle | O Single/Dual | O Dual          |          |               |              |  |  |
| 1000BaseX                               | O Single |               |                 |          | O Cinela      |              |  |  |
|   | O Single | O Single/Dual | O Dual          |          | O Single      | Cin ele      |  |  |
| 10/100/1000BaseT                        | O Single | O Single/Dual | O Dual          |          | O Single      | O Single     |  |  |
| 100BaseFX                               | O Single | O Single/Dual | O Dual          |          | O Single      |              |  |  |
| SyncE Master & Slave                    | O Single | O Single/Dual | O Single        |          | 0             |              |  |  |
| IEEE 1588v2 Master & Slave              | O Single | O Single      | O Single        |          | 0             |              |  |  |
| Dual Port testing                       |          | 0             | 0               |          |               |              |  |  |
| Dual Port Pass Through monitoring       | -        |               | Bidirectional   |          |               |              |  |  |
| BERT/RFC2544/Throughput Test            | •        | •             | •               |          | •             | •            |  |  |
| Y.1564 V-SAM                            | •        | •             | •               |          | •             | ~            |  |  |
| RFC2544 Asymmetric/Peer-to-Peer mode    | 0        | 0             | 0               |          | 0             | 0            |  |  |
| RFC2544 Advanced SLA mode               | •        | •             | •               |          |               |              |  |  |
| Throughput test Multi-streams           | •        | •             | •               |          | 0             | -            |  |  |
| Throughput test VLAN and MAC flooding   | 0        | 0             | 0               |          | 0             | 0            |  |  |
|   |          |               |                 |          |               |              |  |  |
| MPLS                                    | •        | •             | •               |          | 0             | 0            |  |  |
| PBB (MAC in MAC) MPLS MPLS-TP           |          | 0<br>•<br>0   | 0<br>•<br>0     |          |               | 0            |  |  |

Included (may require other options)

O Optional

\*Note: Unless otherwise noted, all items apply to the "e" (International) and "non-e" (USA) version of the products.

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| TEST FEATURES                                    | RXT-1200                                | TX300s Platform |          | TX100+ series |         |        |  |
|--|---|-----------------|----------|---------------|---------|--------|--|
|  | RXT-3000                                | 300s            | 320s     | TX150+        | TX130M+ | TX130+ |  |
| Ethernet/IP cont'd                               |   |                 |          |               |         |        |  |
| VLAN Scan  | •                                       | •               | ٠        |               | •       |        |  |
| Ethernet OAM 802.3ah                             | 0                                       | 0               |          |               | 0       |        |  |
| Ethernet OAM 802.1ag/Y.1731                      | 0                                       | 0               |          |               | 0       |        |  |
| ITU-T G.8113.1 OAM                               | 0                                       | 0               |          |               |         |        |  |
| Loopback   | •                                       | •               | ۲        |               | •       |        |  |
| IPv6 Traffic generation                          | •                                       | •               | ٠        | •             | •       |        |  |
| Advanced IP testing                              | 0                                       | 0               | 0        | 0             | 0       | 0      |  |
| V-Route/ViPAG wrap test                          | ٠                                       | •               | ٠        |               |         |        |  |
| VeTest (Line rate HTTP Throughput test)          | 0                                       | 0               | 0        |               |         |        |  |
| V-PERF (RFC6349 TCP Throughput test)             | 0                                       | 0               | 0        |               |         |        |  |
| V-FTP (Line rate FTP Throughput test)            | 0                                       | 0               | 0        |               |         |        |  |
| One-Way Latency Measurement                      | 0                                       | 0               | 0        |               |         |        |  |
| VoIP Call Expert                                 | 0                                       | 0               | 0        | 0             | 0       | 0      |  |
| IPTV   |   | 0               |          | 0             | 0       | 0      |  |
| Packet Capture/Decode                            | •                                       | •               | •        |               | •       |        |  |
| Net Wizard                                       | 0                                       | 0               | 0        |               | 0       | 0      |  |
| WiFi Wizard                                      | 0                                       | 0               | 0        |               | 0       | 0      |  |
| WiFi Spectrum Analyzer                           | 0                                       | 0               | 0        |               |         |        |  |
| Fibre Channel                                    |   |                 |          |               |         |        |  |
| 10G Fibre Channel                                | O Single                                | O Single/Dual   | 🔾 Dual   |               |         |        |  |
| 8G Fibre Channel                                 | ○ Single                                | O Single/Dual   | O Dual   |               |         |        |  |
| 1G/2G/4G Fibre Channel                           | O Single                                | O Single/Dual   | O Dual   |               |         |        |  |
| CPRI/OBSAI Optical Test                          | , i i i i i i i i i i i i i i i i i i i |                 |          |               |         |        |  |
| Unframed CPRI/OBSAI up to 9.8G                   | O Single                                | O Single/Dual   | ○ Single |               |         |        |  |
| Layer 1 Framed/Layer 2 up to 6.1G                | ○ Single                                | O Single/Dual   | ○ Single |               |         |        |  |
| Layer 1 Framed/Layer 2 up to 9.8G                |   |                 | ○ Single |               |         |        |  |
| Layer 2 Pass Through Monitoring                  |   |                 | 0        |               |         |        |  |
| Network Synchronization Tests                    |   |                 |          |               |         |        |  |
| Multi-rate Reference Clock Wander Analysis       | 0                                       | 0               | 0        |               | 0       |        |  |
| IEEE 1588v2 Wander Measurement                   | 0                                       | 0               | 0        |               | 0       |        |  |
| SyncE Wander Measurement                         | 0                                       | 0               | 0        |               | 0       |        |  |
| STM-1/OC-3 Wander Measurement                    | 0                                       | 0               | 0        | 0             |         |        |  |
| E3/DS3 Wander Measurement                        | 0                                       | 0               | 0        | 0             |         |        |  |
| E1/DS1 Wander Measurement                        | 0                                       | 0               | 0        | 0             | 0       | 0      |  |
| Save TIE to USB (long-term tests)                | 0                                       | 0               | 0        | 0             | 0       | 0      |  |
| Built-in MTIE/TDEV Analysis                      | •                                       | •               | •        |               |         | -      |  |
| MTIE/TDEV Post Analysis PC software              | •                                       | •               | •        |               | •       | •      |  |
| 1 PPS reference clock                            | •                                       | •               | •        |               | •       | -      |  |
| 64 kbps reference clock                          |   |                 | -        | •             |         |        |  |
| 1.5 MHz, 2 MHz, 1.5 Mbps, 2 Mbps reference clock | •                                       | •               | •        |               | •       | •      |  |
| 10 MHz reference clock                           | •                                       | •               | •        | -             |         |        |  |
| Built-in Atomic Clock Reference                  | 0                                       | 0               | 0        |               |         |        |  |
| Built-in GPS Clock Reference                     | 0                                       | 0               | 0        |               |         |        |  |
| External GPS ToD Support (RS232)                 |   | •               | •        |               |         |        |  |
|  |   |                 | •        |               | -       |        |  |
|  |   |                 |          | 1             | 1       | 1      |  |

Included (may require other options)

O Optional

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| TEST FEATURES                             | RXT-1200  | TX300s Platform |             | TX100+ series |              |        |  |
|---|-----------|-----------------|-------------|---------------|--------------|--------|--|
|   | RXT-3000  | 300s            | 320s        | TX150+        | TX130M+      | TX130+ |  |
| Fiber Optics Features                     |           |                 |             |               |              |        |  |
| OTDR HW Option                            | RXT-4500  | TX300s-OTDR     | TX300s-OTDR |               |              |        |  |
| OTDR PON HW Option                        | RXT-4500  | TX300s-OTDR     | TX300s-OTDR |               |              |        |  |
| Optical Link Mapper (V-Scout)             | 0         | 0               | 0           |               |              |        |  |
| Faceless OTDR (USB)                       | OPX-BOX   | OPX-BOX         | OPX-BOX     |               |              |        |  |
| Faceless OTDR (Bluetooth)                 | OPX-BOX   | OPX-BOX         | OPX-BOX     |               |              |        |  |
| Optical Power Meter (Built-in)            | RXT-4500  | TX300s-OTDR     | TX300s-OTDR |               |              |        |  |
| Optical Power Meter (USB)                 | UPM-100   | UPM-100         | UPM-100     |               |              |        |  |
| Optical Loss Test (OLTS)                  | RXT-4500  | TX300s-OTDR     | TX300s-OTDR |               |              |        |  |
| Visual Fault Locator                      | RXT-4500  | OPX-BOX         | OPX-BOX     |               |              |        |  |
| Fiber Inspection Scopes (USB)             | 0         | 0               | 0           |               |              |        |  |
| Fiber Scope Pass/Fail Analysis (Built-in) | 0         | 0               | 0           |               |              |        |  |
| Other Features                            |           |                 |             |               |              |        |  |
| Concurrent Tests                          | 1         | up to 2         | up to 2     |               | PDH+Ethernet |        |  |
| MTT Forward Compatibility Mode            | RXT-2000A |                 |             |               |              |        |  |
| Signature Pad                             | 0         | 0               | 0           |               |              |        |  |
| Web-based Remote Access and Control       | •         | •               | •           |               |              |        |  |
| Remote Control (ReVeal)                   | 0         | 0               | 0           | 0             | 0            | 0      |  |
| VNC Remote Control                        | 0         | 0               | 0           |               |              |        |  |
| Data Card and Bluetooth Dongles           | 0         | 0               | 0           | 0             | 0            | 0      |  |
| R300-Server Client (Results Upload)       |           | 0               | 0           |               |              |        |  |
| VeExpress (Software & Licenses)           | 0         | 0               | 0           |               |              |        |  |
| Web Browser                               | 0         | 0               | 0           | 0             | 0            | 0      |  |
| USB 2.0 ports (# of ports)                | 2         | 2               | 2           | 1             | 1            | 1      |  |