Victoria Combo Jitter/Wander is the ultimate tool to guarantee reliable SDH/SONET transmission up to 2.5 Gbit/s.

With this solution, the most competitive in the market, you can analyse any phase impairment or synchronisation issues in your next-generation or classic SDH/SONET networks. You can also check synchronisation networks for clock impairments, as well as jitter and wander, to make sure that standards are met.

Powerful and easy to manage, Victoria Combo Jitter/Wander is the ideal companion for the world’s most demanding operators, and many of them are already using it to differentiate their high-quality services from the competition.

- ITU-T O.171 and O.172 compliant
- Real-time TIE, MTIE, MRTIE, TDEV
- SDH, SONET, PDH and T-Carrier interfaces
- Jitter tolerance and transfer
- Programmable jitter filters
- Offset and drift measurements
- Pass/Fail jitter level indication
- G.783 pointer sequences
- Editable masks
- Graphical results and tables
New Testing Module

The new jitter/wander module extends Victoria Combo’s features, including jitter and wander generation and analysis, tolerance and transfer tests, as well as frequency offset and drift. The most unique feature of this module is that it enables you to carry out full built-in wander measurements in real time (TIE, MTIE, MRTIE, TDEV), without using external software.

Jitter/Wander Measurements

Faults in the transmission media, poor design, aging, pointer movements, temperature, and other causes may produce phase fluctuations in the clock signal. These fluctuations are known as jitter (higher frequencies) and wander (lower frequencies), and they often cause slips and bit errors in SDH/SONET tributaries.

Victoria Combo Jitter/Wander includes several options and results for efficient jitter and wander measurements. The tester measures Maximum Time Interval Errors (MTIE) and Time Deviation (TDEV) in real time, without any external software, and checks conformity with the masks that define the amount of wander a signal can tolerate.

Synchronisation Networks

In SDH networks it is necessary to feed every SDH node with the same clock signal. This signal must be generated by a Stratum One (ST1) clock or Primary Reference Clock (PRC), distributed across the network and regenerated in the SSU, SASE and SEC.

The quality of the clock signal must be maintained in every way, and any issue that may interfere with the phase of the signal must be detected and addressed.

Victoria Combo Jitter/Wander is the solution you need to check the stability of the clock signal, as well as its frequency offset and drift.

With Victoria Combo Jitter/Wander you can also study the capacity of your synchronisation network to filter phase transients in its references, and the performance of the signals it generates.
Applications up to 2.5G in SDH, SONET, PDH and T-Carrier

Network Interconnection Test

Pointer movements are a major cause of slips and service degradation in mature SDH/SONET networks. And this is what often happens when two networks are interconnected, particularly when they belong to different operators, as each network is synchronised by a different clock.

Victoria Combo Jitter/Wander analyses pointer adjustments, as well as frequency and phase offset between clocks, to determine and eventually fix the causes of clock impairments.

Mobile operators must also check the quality of their circuits and clock signals. Meeting the ITU-T standards is the guarantee of success. For these networks, the stability of the carrier's frequency improves the chances for a successful handover and a low interference level between consecutive cells.

With Victoria Combo Jitter/Wander you can carry out MTIE and TDEV measurements to check the quality of clocks, and compare your test results to the standards.

Network Equipment Conformance

Network elements that may have very similar features can be very different from the synchronisation point of view. ITU-T and ETSI standards specify which parameters must be measured to guarantee that each network element works correctly.

Victoria Combo Jitter/Wander has everything you need to carry out all the tests required in this process. Results are displayed clearly so that you can directly compare them to the masks and thresholds defined in the standards.

Synchronisation Conformance

There are businesses based on synchronisation service provisioning. Clock signals, often based on E1, T1, STM-1/OC-3 are transported to the customer's premises using dedicated networks.

Factors such as reconfigurations in the synchronisation chain, PLL drifts, or changes in ambient temperature degrade the synchronisation signal during transmission.

Victoria Combo Jitter/Wander evaluates the quality of synchronisation to make sure that the signal is suitable for transmission.