80C08C Optical Measurement Module

The broad-wavelength 80C08C optical sampling module is a hardware plug-in for the Tektronix 8000 Series Communications Signal Analyzer family. The module offers the accuracy, signal-to-noise performance, and optical sensitivity to meet the development and production test needs of low-cost directly-modulated laser devices used in10 gigabit Ethernet (10GbE) components and equipment. The module is designed to support narrow measurement margins in production, maximizing yield.

The 80C08C (and its companion, the 80C011) are the first available solutions to answer 10 GbE forward error correction (FEC) measurement needs. In addition, both products offer optional user definable continuous clock recovery rates—another industry first.

80C08C Feature	Characteristic
Supported standard or filtering rates	• OC-192/STM-64 (9.953 Gb/s) • 10GBASE-W (9.953 Gb/s) • 10GBASE-R (10.31 Gb/s) • 10G Fibre Channel (10.52 Gb/s) • ITU-T G.975 FEC (10.664 Gb/s) • ITU-T G.709 (10.709 Gb/s) • 10 GbE FEC (11.1 Gb/s)
Effective wavelength range	700 nm to 1650 nm
Calibrated wavelengths	• 780 nm • 850 nm • 1310 nm • 1550 nm (All ± 20 nm)
Clock recovery (3 optional configurations)	• Fixed rate, 9.953 Gb/s or 10.31 Gb/s • Fixed rate, 10.31 Gb/s, 10.52 Gb/s • User defineable rates from 9.8 Gb/s to 12.6 Gb/s
Unfiltered optical bandwidth	10 GHz typical
Fiber input	Single- or Multi-mode
RMS optical noise (typical)	1.7 µW at all filtering rates
Power Meter Range	0 dBm to -30 dBm
Power Meter Accuracy	5% of reading
Mask test optical sensitivity	-15 dBm at all filtering rates