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# Test & Measurement

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Optical Sampling Module	Typical Band- Width Selections	Filter Rates (Gb/s)	Standard Supported	Clock Recovery Option Available (Yes/No)	Wave- Length (nm)	RMS Noise Typical (μW)	Optical Sensitivity (dBm) See Note 1	Application Features
Datacom								
80C03	2.5 GHz	1.063 1.250 2.488 2.500 2.500	Fibre Channel GbE OC48/STM16 2GbE Infiniband	Yes Yes Yes Yes Yes	700-1650	0.75 0.75 1.0 1.0 1.0	-22 -22 -20 -20 -20	-High-sensitivity and low-noise design for low-level datacom optical signals -Multi-mode or Single-mode fiber -Broad wavelength
80C08B	10 GHz	9.95328 10.3125 10.51875	10GBASE-W 10GBASE-R (10GbE) 10G Fibre Channel	Yes Yes Yes	700 – 1650	2.5 2.5 @ 1550 nm	-13 -13 -13	-High-sensitivity and low-noise design for low-level 10 GbE and 10 G Fibre Channel optical signals -Multi-mode or Single-mode fiber -Broad wavelength
Tributary								
80C01	12.5GHz 20GHz	622 Mb/s 2.488 9.953 -	OC-12/STM-4 OC-48/STM-16 OC-192/STM-64 -	Yes Yes No	1100 –1650	8.0 8.0 8.0 15.0	-8 -8 -8 -5	-Selectable bandwidths of 12.5/20 GHz -Provides complete test solution for popular telecom rate applications
80C07	2.5 GHz	155.52 Mb/s 622.08 Mb/s 2488.32 Mb/s	OC-3/STM-1 OC-12/STM-4 OC-48/STM-16	Yes Yes Yes	700-1650	0.50 0.50 0.70	-22 -22 -20	<ul> <li>Excellent signal-to-noise performance for low-level telecom tributary rates</li> <li>Multi-mode or Single-mode fiber</li> <li>Broad wavelength</li> </ul>
10 Gb/s								
80C02	12.5GHz 20 GHz 30 GHz	9.953 - -	OC-192/STM-64 - -	Yes	1100-1650	6.0 15.0 20.0	-9 -7 -4	-Selectable bandwidths of 12.5/20/30 GHz -Conformance testing of OC192/STM64
80C04	20 GHz 30 GHz	9.953 10.664 - -	OC-192/STM-64 ITU-T G.975 FEC - -	Yes Yes	1100-1650	6.0 6.0 10.0 20.0	-9 -9 -7 -4	-Selectable bandwidths of 20/30 GHz -Conformance testing of OC192/STM64 and G.975 (10.664 Gb/s) rates
80C09	20 GHz 30 GHz	9.95328 10.709 - -	OC-192/STM-64 ITU-T G.709 FEC - -	Yes Yes	1100-1650	6.0 6.0 10.0 20.0	-9 -9 -7 -4	-Selectable bandwidths of 20/30 GHz -Conformance testing of OC192/STM64 and G.709 (10.709 Gb/s) FEC rates
40 Gb/s								
80C05	20 GHz 30 GHz 40 GHz	9.953 - - -	OC-192/STM-64 - - OC-768/STM-256	No	1520-1580	10.0 15.0 25.0 50.0	-7 -5 -3 0	-Selectable bandwidths of 20/30/40 GHz -OC192/STM64 reference receiver filter - Performance testing of low-power 40 Gb/s RZ or NRZ data formats
80C06	55 GHz	-	OC-768/STM-256	No	1520-1580	150.0	+5	-55 GHz bandwidth for 40Gb/s RZ or NRZ data format signal characterization
80C10	- - 30 GHz 65 GHz	39.813 43.018 - -	OC-768/STM-256 ITU-T G.709 FEC - - -	Future Future	1310 & 1550	60.0 60.0 45.0 100.0 @1550 nm	0 0 0 +3	-65 GHz bandwidth and reference receiver filtering for 40 Gb/s RZ or NRZ data formats Conformance testing of OC768/STM256 and G.709 FEC rates Future clock recovery upgrade capability

## **Electrical Sampling Module Selector**

Electrical Sampling Module	Band- Width See Note 2	Channels	Rise Time Typical (10% - 90%) See Note 2	Dynamic Range (Vp-p)	Offset Range (V)	Maximum Input Voltage (V)	RMS Noise Typical (μV)	Application Features
Electrical Sampling								
80E01	50 GHz	1	7 ps	1.0 Vp-р	±1.6 V	±2.0 V	<1.8 mV	<ul> <li>Includes 2.4 mm male to 2.9 mm female</li> <li>SMA adapter</li> <li>-80E01X2 ordering configuration</li> <li>available to purchase a second 80E01</li> <li>module at half price</li> </ul>
80E02	12.5 GHz	2	28 ps	1.0 Vр-р	±1.6 V	±3.0 V	400 μV	<ul><li>Low-noise measurements</li><li>Dual channel</li></ul>
80E03	20 GHz	2	17.5 ps	1.0 Vp-р	±1.6 V	±3.0 V	600 μV	–Dual channel
80E04	20 GHz	2	17.5 ps	1.0 Vp-р	±1.6 V	±3.0 V	600 μV	<ul> <li>Dual channel electrical TDR</li> <li>Fast 35 ps reflected rise time of TDR step</li> <li>Enables differential or common-mode testing of two coupled lines</li> <li>Enables independent testing of two isolated lines</li> </ul>
80E06	70+ GHz (typical)	1	5.0 ps	1.0 Vp-р	±1.6 V	±2.0 V	1.8 mV	<ul> <li>Provided with 1.85 mm front panel connector</li> <li>Includes precision 2.4 mm male to 2.92 mm female adapter</li> <li>80E06X2 ordering configuration available to purchase a second 80E06 module at half price</li> </ul>
012-1568-00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	-Accessory: Electrical sampling module extender cable (1 meter length)
012-1569-00	N/A	N/A	N/A	N/A	N/A	N/A	N/A	<ul> <li>Accessory: Electrical sampling module extender cable (2 meter length)</li> </ul>

### **Optical Selector Notes:**

Note 1: Smallest power level for mask test. Values represent theoretical typical sensitivity of NRZ eyes for competitive comparison purposes. Assumes acceptable instrument peak-peak noise is 40% of the amplitude of the signal allowing the instrument to consume 100% of the mask margin.

### **Electrical Selector Notes:**

Note 2: Calculated from 0.35 bandwidth rise time product.