

EA-4000 Eye Analyzer

OPTICAL AND ELECTRICAL SAMPLING SCOPE



The fastest sampling scope in the industry. A powerful solution for the 5G production line.

KEY FEATURES

Ultra-fast 1M sample/s, measures 1000 waveforms in 2 seconds (2000 sample/waveform)

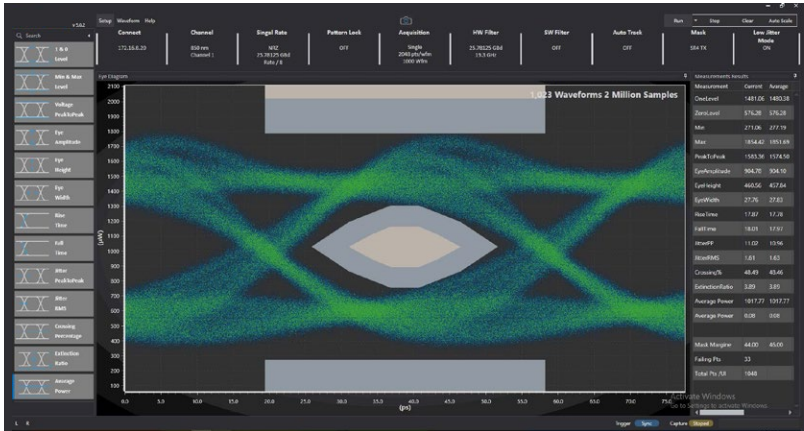
Supporting 28G NRZ signals

Optical receiver support singlemode and multimode

Repeatable measurements and comparable to tier-1 scope

Built-in low jitter mode

COMPELLING EYE SHARPENING FOR PRODUCTION TESTING



Intuitive GUI for NRZ eye diagrams

SPECIFICATIONS

Electrical

Sampling speed (sample/s)	1,000,000
Bandwidth (GHz)	33 (typical at 3 dB bandwidth)
Input range (V_{ppd})	1.0 (max.)
Damage amplitude (V_{ppd})	1.7 (max.)
Connector type	K(f) (50 Ω)
Return loss (dB)	-6.5 (at 32 GHz)
RMS noise (mV)	2.0 (typical) / 2.5 (max.)

Optical

Bandwidth (GHz)	33 (for 28G optical)
Wavelength (nm)	830-1600 (full range model of 28G) 1250-1600 (SMF model of 28G) 780-1600 (for 10G optical)
Return loss (dB)	-24 (full range model) -30 (SMF model)
Input sensitivity (dBm) (mask margin 0 %, hit ratio 0)	-8 (typical at 850 nm) -10 (typical at 1310 nm)
Damage power (mW)	8
Connector type	FC/PC (50/125 μm) (full range model) FC/PC (9/125 μm) (SMF model)

Clock

Clock input ratio	/8, /16, /32, /64
Trigger jitter (fs)	<290 (typical)
Sensitivity (mV)	100 (typical)

GENERAL SPECIFICATIONS

Size (H x W x D)	103 mm x 442 mm x 300 mm (4 in x 17.4 in x 11.8 in)
Weight	≤10 kg (22 lb)
Temperature	Operating Storage
	5 °C to 40 °C (41 °F to 104 °F) -20 °C to 70 °C (-4 °F to 158 °F)
Relative humidity	20% to 80%
Power ^a	100/120 Vac (50/60/400 Hz) 220/240 Vac (50/60 Hz) 60 W typical/80 W max.
Access interface	Gigabit Ethernet (RJ45 port)

a. Operate with supply voltage fluctuations up to ±10 % of the nominal voltage.

MODELS

EA-4000	No. of optical CH	λ_{start}	λ_{stop}	Connector type	No. of differential electrical CH	x10G option	Application
28-1-0-F	1	830 nm	1600 nm	FC/PC (50/125 μ m)	0	YES	Full range: singlemode and multimode
28-2-0-F	2	830 nm	1600 nm	FC/PC (50/125 μ m)	0	NO	Full range: singlemode and multimode
28-1-1-F	1	830 nm	1600 nm	FC/PC (50/125 μ m)	1	NO	Full range: singlemode and multimode
28-1-0-SM	1	1250 nm	1600 nm	FC/PC (9/125 μ m)	0	YES	Singlemode
28-2-0-SM	2	1250 nm	1600 nm	FC/PC (9/125 μ m)	0	NO	Singlemode
28-1-1-SM	1	1250 nm	1600 nm	FC/PC (9/125 μ m)	1	NO	Singlemode
33-0-1-E	0	-	-	-	1	NO	Electrical EYE
33-0-2-E	0	-	-	-	2	NO	Electrical EYE

ORDERING INFORMATION

EA-4000-XX-XX

Model

28-1-0-F^a = 28G optical scope (830 nm - 1600 nm)
 28-2-0-F^a = 2CH 28G optical scope (830 nm - 1600 nm)
 28-1-1-F^a = 28G O/E scope, 1CH optical (830 nm - 1600 nm) and 1CH electrical (differential)
 28-1-0-SM^b = 28G optical scope (SMF) (1250 nm - 1600 nm)
 28-2-0-SM^b = 2x28G optical scope (SMF) (1250 nm - 1600 nm)
 28-1-1-SM^b = 28G O/E scope, 1CH optical (SMF) (1250 nm - 1600 nm) and 1CH electrical (differential)
 33-0-1-E^c = 33 GHz digital electrical scope (differential)
 33-0-2-E^c = 2CH 33 GHz digital electrical scope with K connector (differential)

Options

10 = Add 10G optical hardware^d

- a. Multimode and singlemode supported.
 b. Best for singlemode.
 c. Best for electrical EYE.
 d. Available for EA-4000-28-1-0-F and EA-4000-28-1-0-SM.

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