

PRBS Pattern Generator

PRBS30G





Key Features

- Internal variable-frequency clock source
- Wide operating range, from 10 Gb/s to 32 Gb/s
- Small size – 94 x 60 x 20 mm³
- Multiple output PRBS patterns
- Differential outputs

Specifications

Parameters	Values
Phase modulation frequency (Data rate)	10 ~ 28 Gb/s (Optional range, <10Gb/s or ~32Gb/s)
Programmable data rate	10, 15, 20, 25, 28 Gb/s (User specific data rate available)
PRBS Patterns	2 ⁿ -1 (n = 7, 8, 9, 10, 11, 12, User specific patterns available)
Data output amplitude (single-ended)	400 mV p-p typical
Data output rise/fall time (20% to 80%)	Typical 25ps
Data output jitter	1.0 ps rms typical
Sync out monitor	Internal clock/16 (500 mV p-p)
Data output external interface	50Ω, Differential, 2.92mm K-type connector
Size	94 x 60 x 20 mm ³
Operating temperature	+10 to +40 °C
Storage temperature	–40 to +70 °C
Power requirements	+5V DC, 3A (AC Adaptor or Connector provided)

Typical output PRBS patterns

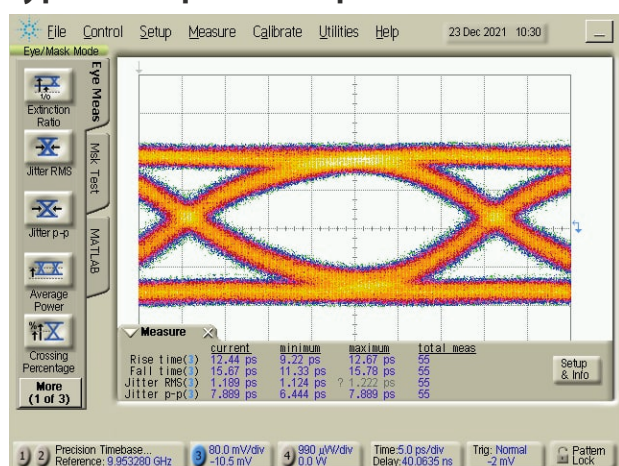


Figure 1. 25 Gb/s, 2¹²-1 PRBS eye diagram

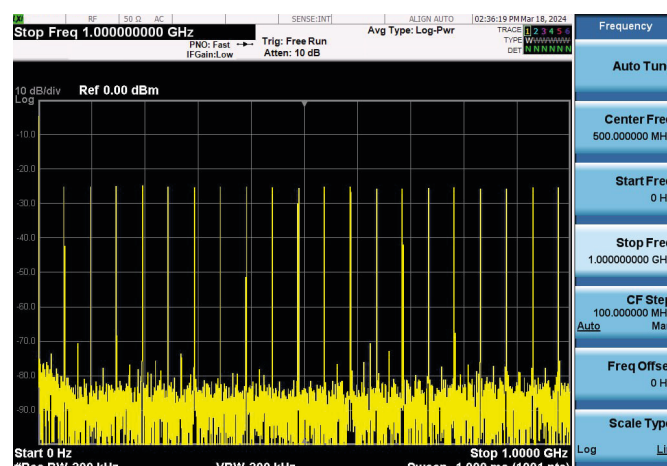


Figure 2. 25 Gb/s, 2⁹-1 PRBS RF spectrum