



PG2402



DEVICE

48 Gb/s Pattern Generator, Dual 24 Gb/s CH

OVERVIEW

The Optilab PG2402 is a Dual 24 Gb/s Pattern Generator (PG) combined, for 48 Gb/s. This high performance pattern generator unit provides up to 24 Gb/s eye diagram generation for Bit Error Rate Testing (BERT). The user selectable reference clock allows testing BER at a specific data rate with external clock input or at a pre- defined data rate using the internal clock. A high speed synchronized clock at half or full data rate is available for eye pattern monitoring or RZ pulse generation. An intuitive GUI, Optilab Teraport, is provided with the BERT system for easy operation. Contact Optilab for more information.

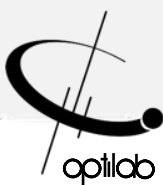
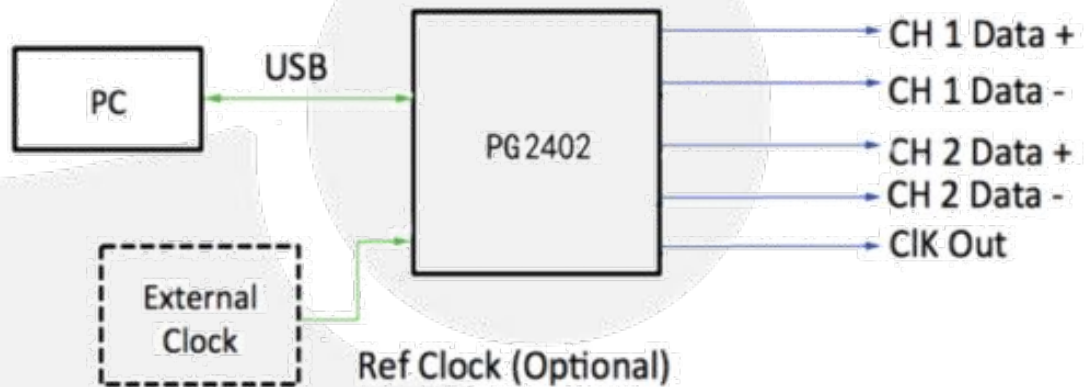
FEATURES

- Data Rate from 2 x 20 to 2 x 24 Gbps
- PRBS of 2⁷-1 or 2³¹-1
- Integrated DQPSK Precoder
- Error injection function
- Teraport GUI software included
- Differential output adjustable to 1 volt
- Eye Crossing Adjustment

USE IN

- Photonics module testing
- 43 Gbps DQPSK Link
- Electrical eye diagram to 24 Gb/s x 2
- 100 Gbps DP-QPSK testing

FUNCTIONAL DIAGRAM

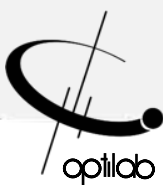
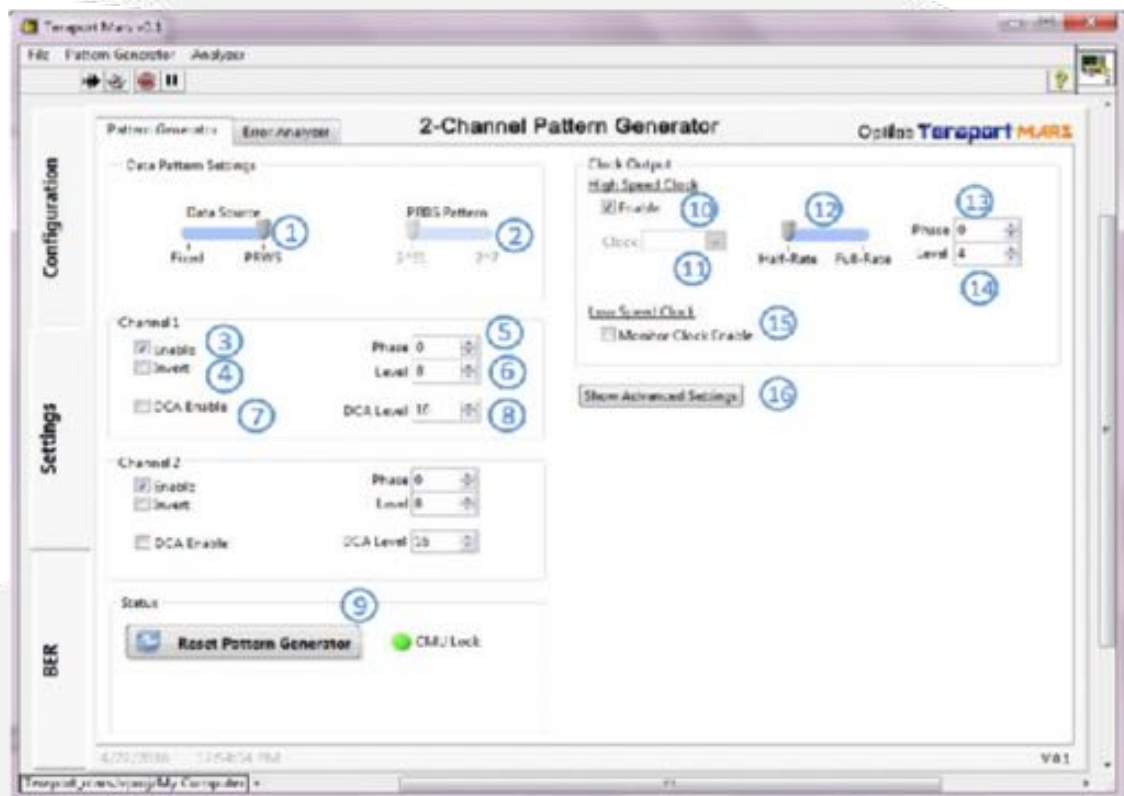




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TERAPORT INTERFACE

| No. | Function | Description |
|-------------------------------------|-------------------------|---|
| <input checked="" type="checkbox"/> | Data Source | Fixed or PRBS pattern |
| <input checked="" type="checkbox"/> | PRBS Pattern | 2 ⁷ -1 or 2 ³¹ -1 |
| <input checked="" type="checkbox"/> | Enable | Enable channel |
| <input checked="" type="checkbox"/> | Invert | Invert data pattern |
| <input checked="" type="checkbox"/> | Phase | Phase adjust |
| <input checked="" type="checkbox"/> | Level | Output voltage level |
| <input checked="" type="checkbox"/> | DCA Enable | Turn on data crossing adjustment |
| <input checked="" type="checkbox"/> | DCA Level | Data crossing adjustment level |
| <input checked="" type="checkbox"/> | Reset Pattern Generator | Reset operation |
| <input checked="" type="checkbox"/> | Enable | Turn on high speed clock output |
| <input checked="" type="checkbox"/> | Clock | Select clock |
| <input checked="" type="checkbox"/> | Half Rate, Full Rate | Select half or full rate |
| <input checked="" type="checkbox"/> | Phase | Phase adjustment |
| <input checked="" type="checkbox"/> | Level | Clock output level adjustment |
| <input checked="" type="checkbox"/> | Monitor Clock Enable | Turn on low speed clock |
| <input checked="" type="checkbox"/> | Show Advanced Setting | Additional control function |

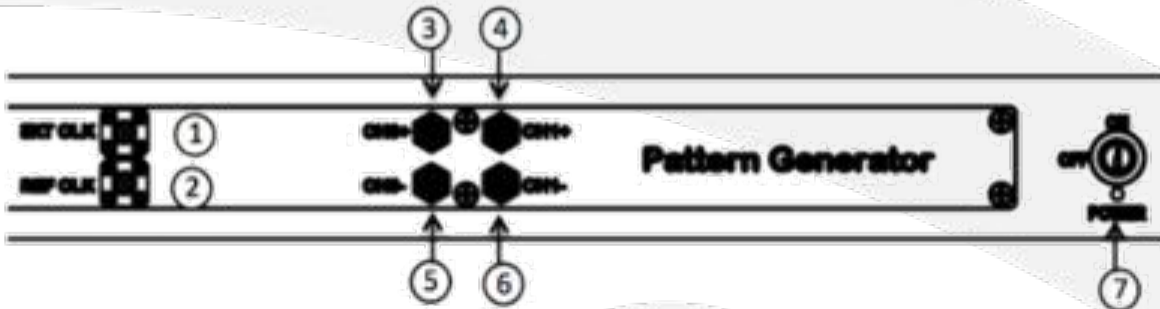
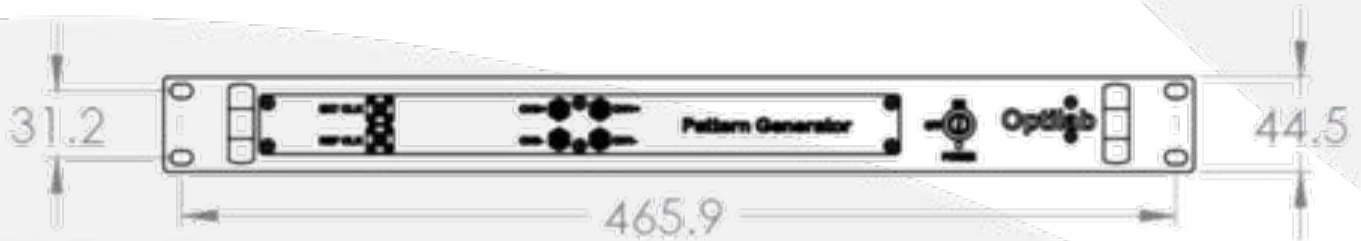




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MECHANICAL DRAWING

| No. | Function | Description |
|-----|-----------------|------------------------------|
| ① | External Clock | External clock input port |
| ② | Reference Clock | High speed clock output port |
| ③ | CH 1+ | Channel 1,data+ |
| ④ | CH 2+ | Channel 2,data+ |
| ⑤ | CH 1- | Channel 1,data- |
| ⑥ | CH 2- | Channel 2,data- |
| ⑦ | Power | Turn on /off |



AVAILABLE CLOCK RATE OPTION

| | |
|----------|--|
| External | Adjustment from 20 Gb/s to 24 Gb/s |
| 20G | Built-in clock for 20 Gb/s output |
| 24G | Built-in clock for 24 Gb/s output |
| Custom | Any fixed clock from 622.5MHz to 750 MHz |

