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DISPERSION COMPENSATION

**Aim:**

To study the dispersion compensation using

* + - Dispersion compensation fiber (DCF)
      * Pre, Post, Pre-post (symmetrical)

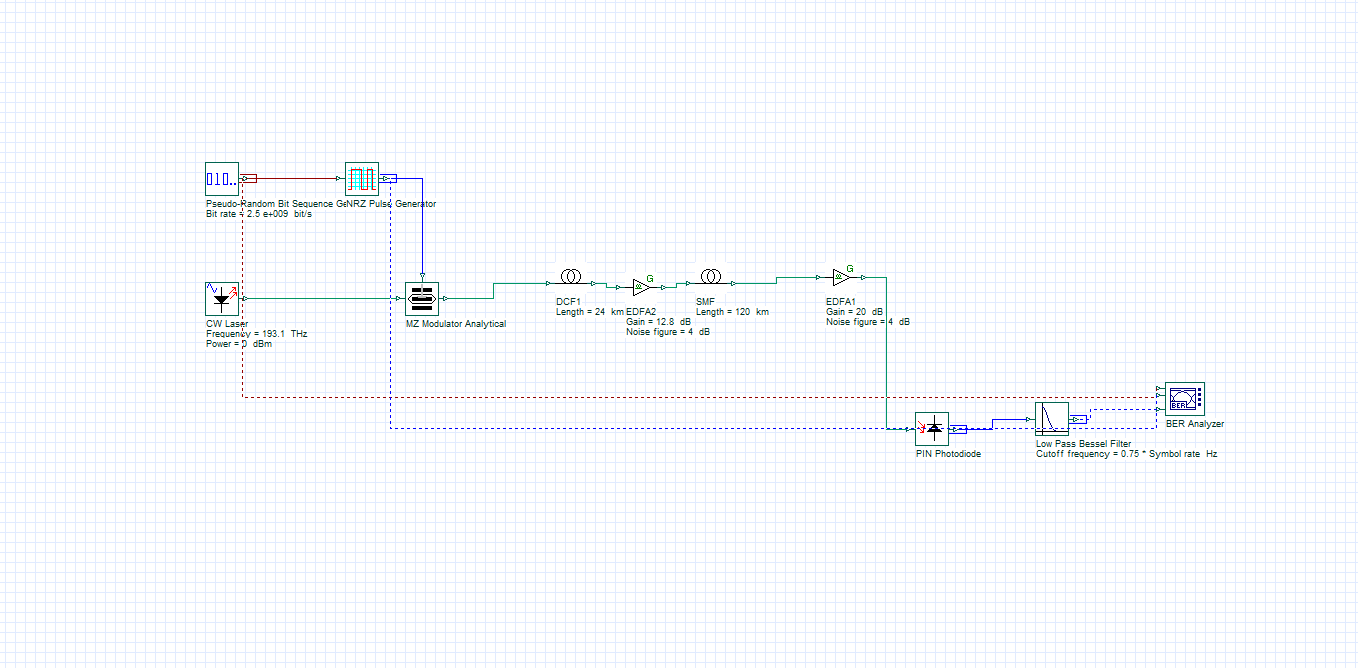
**Software Required:**

Optisystem 21

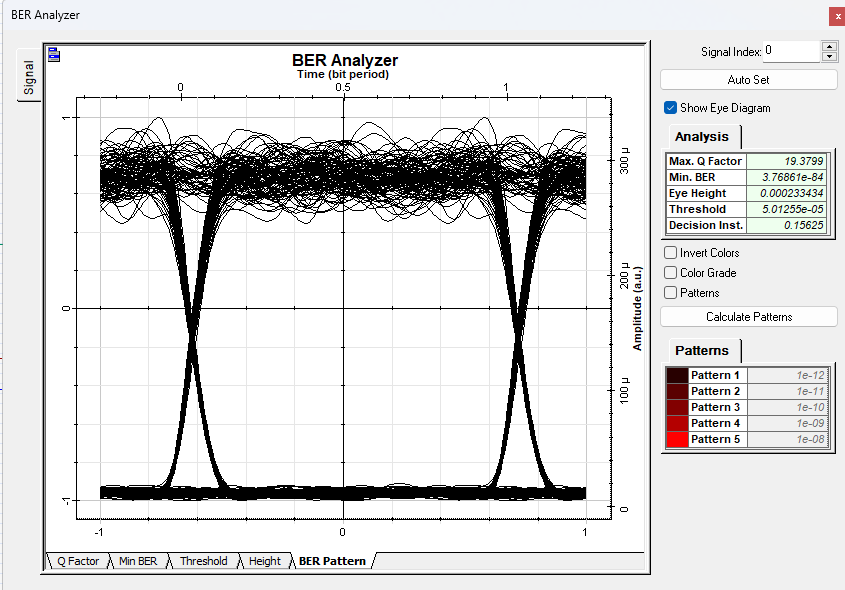
**Procedure:**

1. Open the optisystem 21.
2. Get the components from the component library and arrange accordingly.
3. Now take the readings of Q-factor, BER and average received power for the input signals with different given power.
4. Repeat the same for all three types.
5. Before taking all these readings run the system.

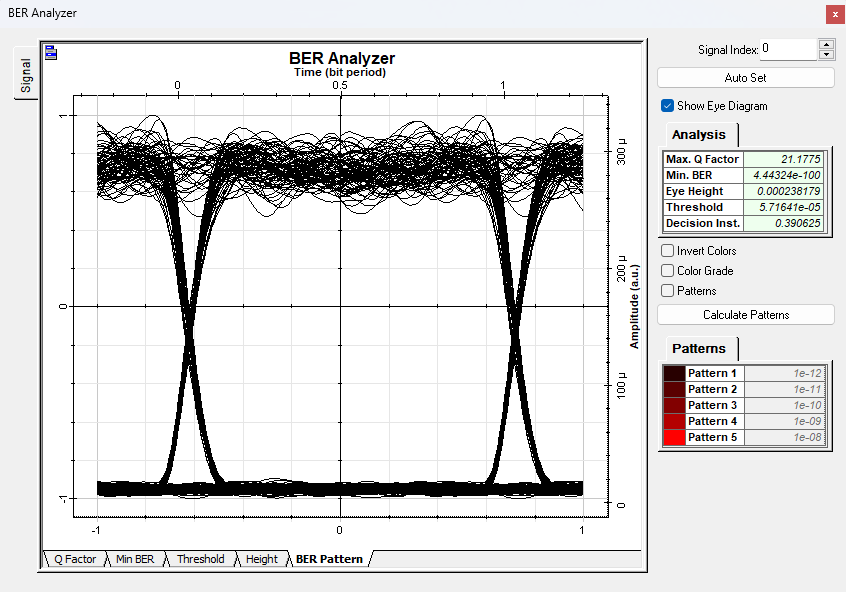
**Pre:**



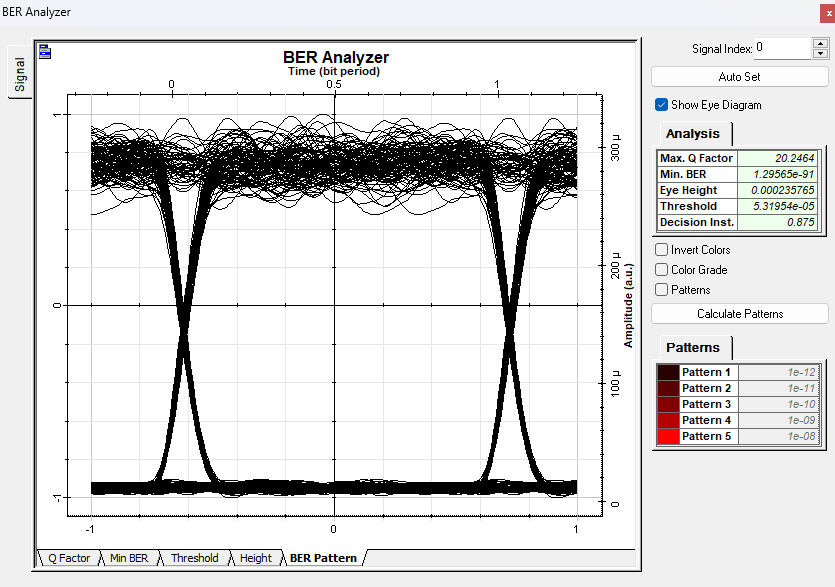
**0 db**



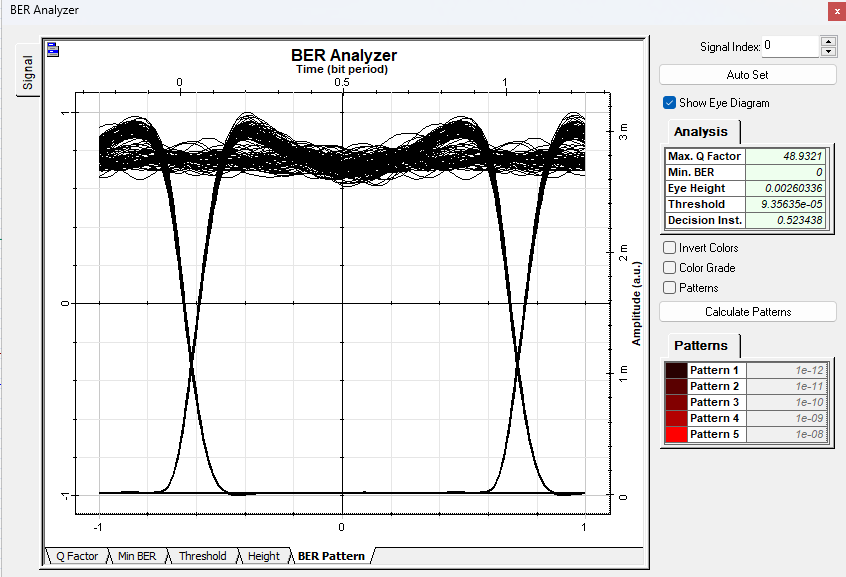
**5 dBm**



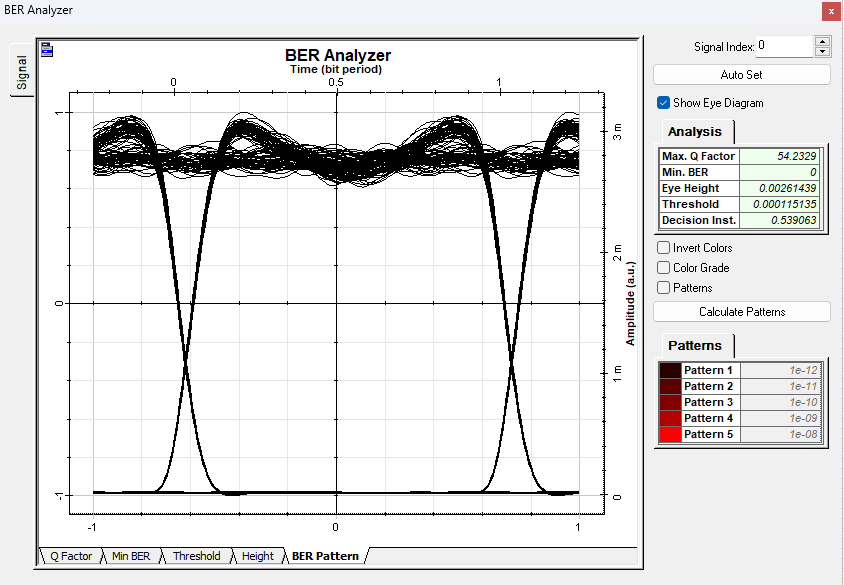
**10 dBm**

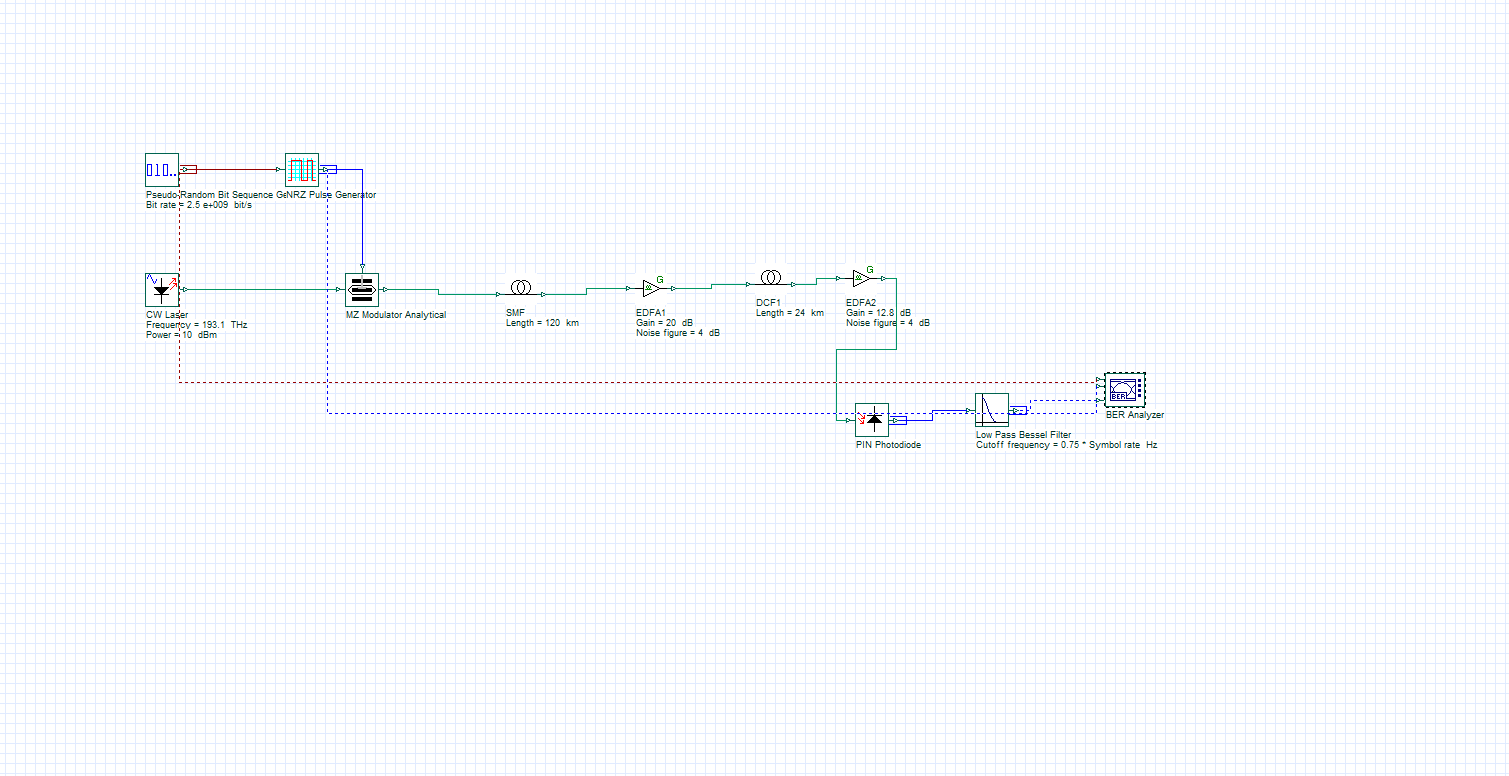


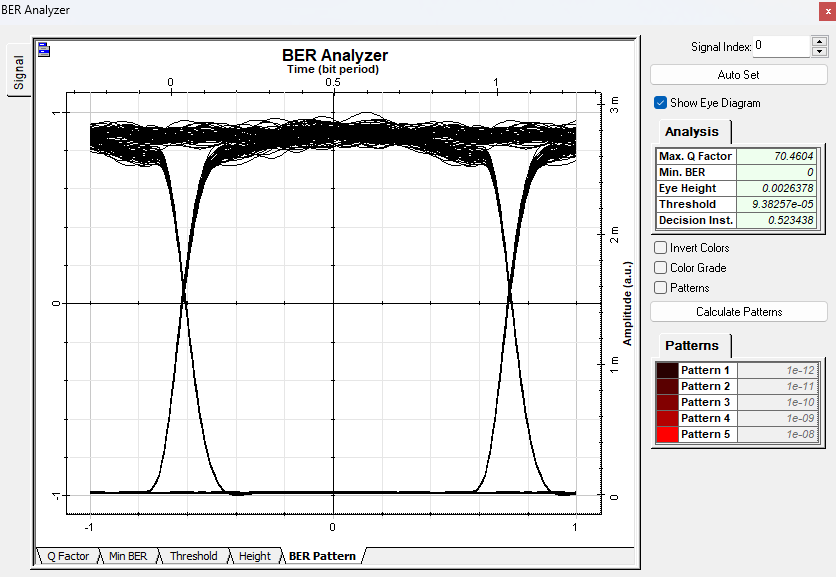
**15 dBm**



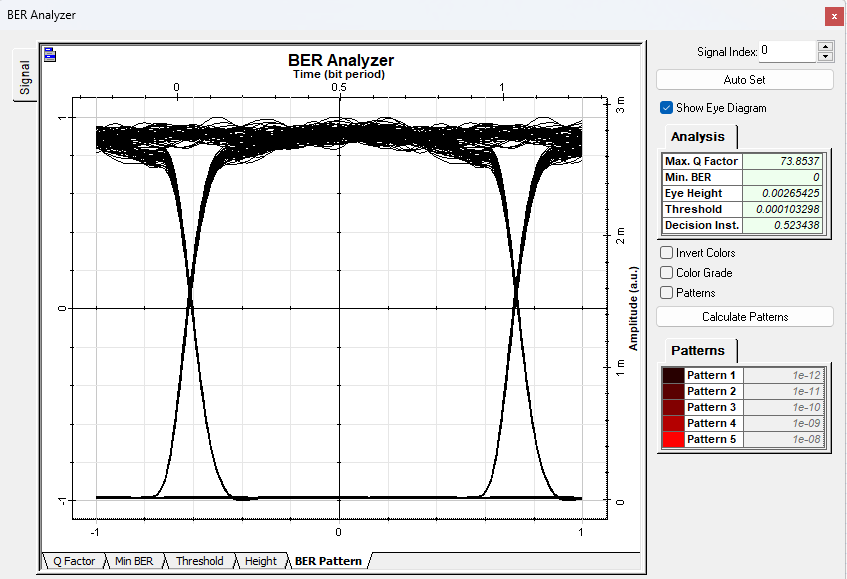
**20 dBm**



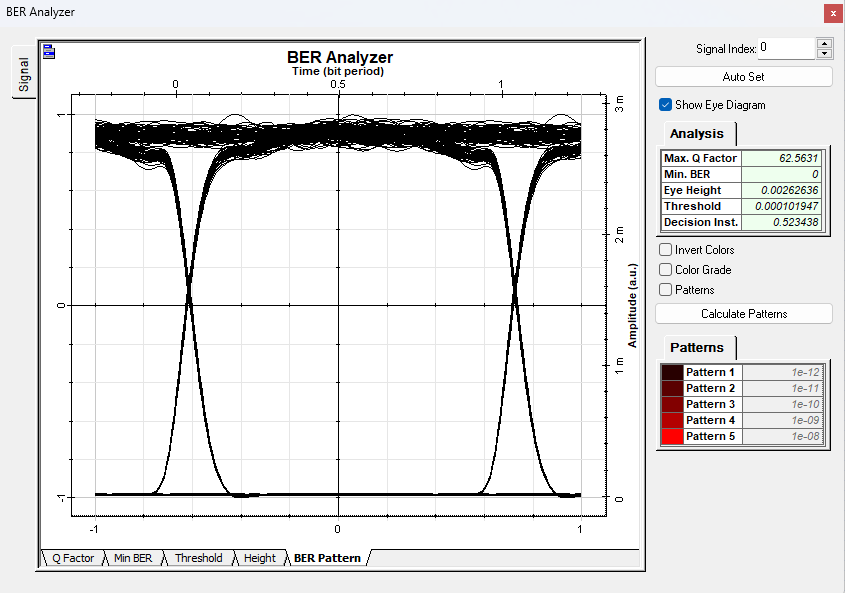
**POST**

**0dbm**

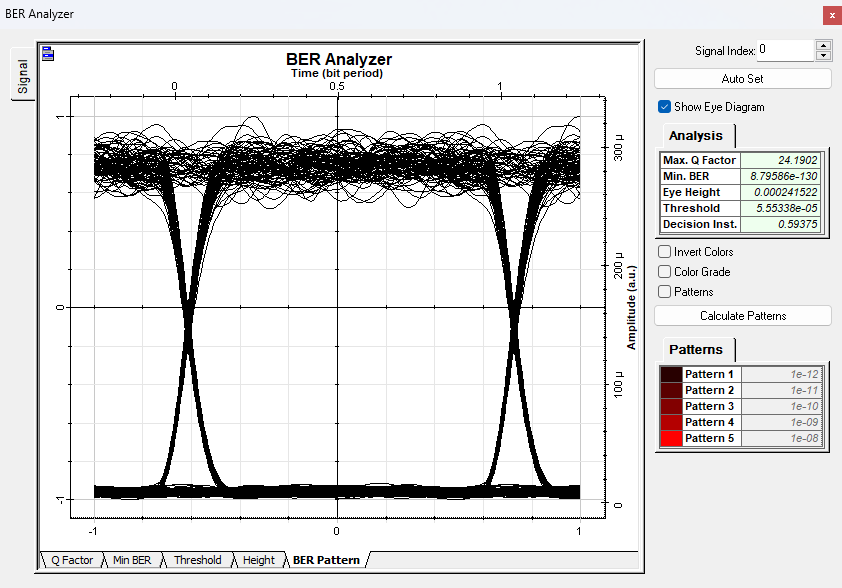
**5dbm**



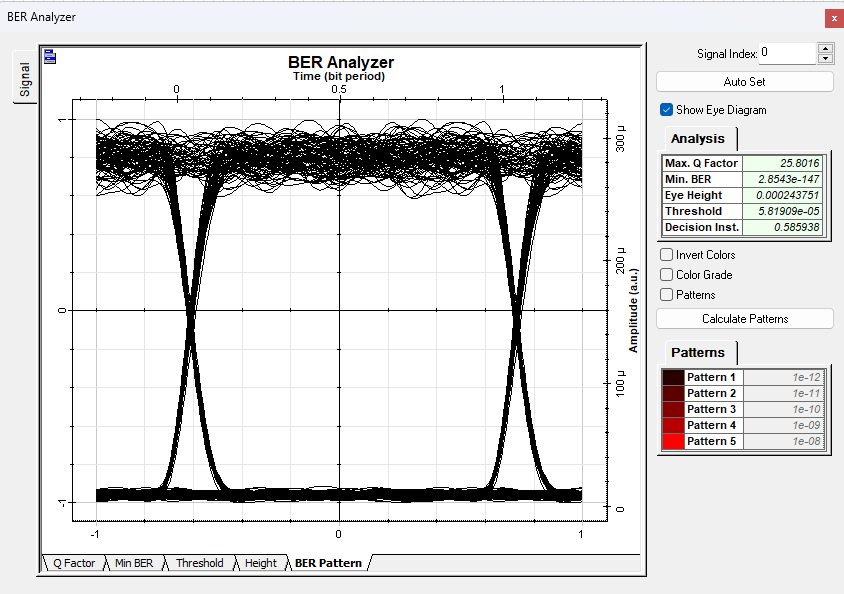
**10dbm**



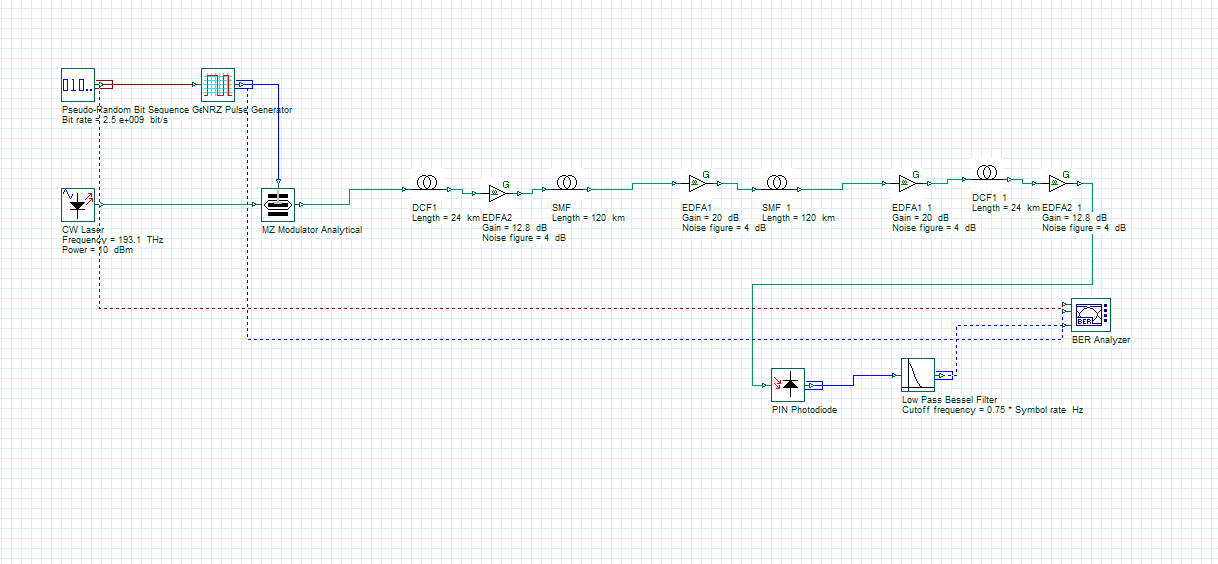
**15 dbm**



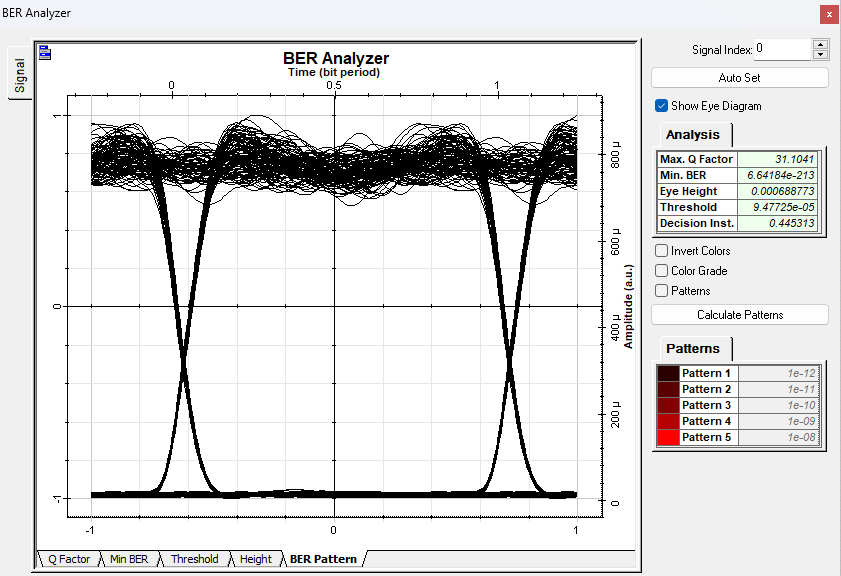
**20 dbm**



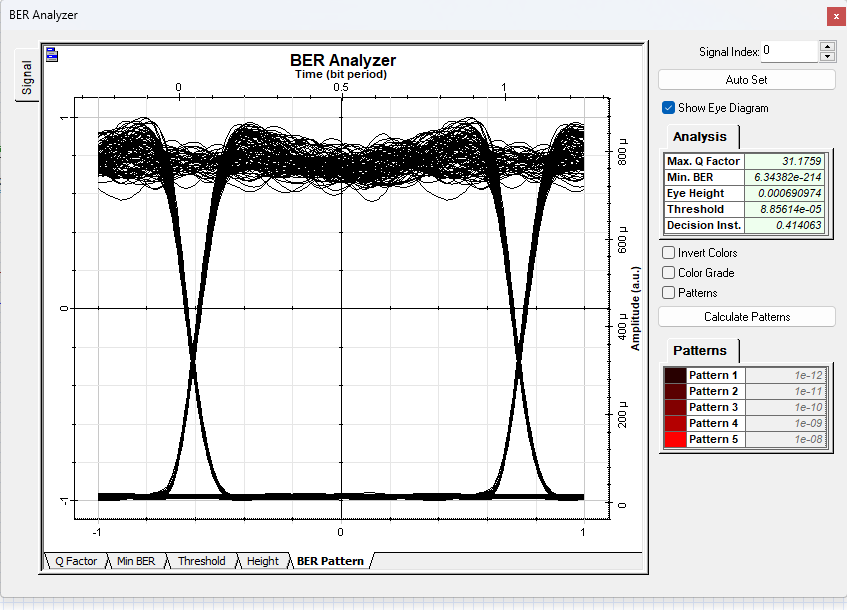
pre post



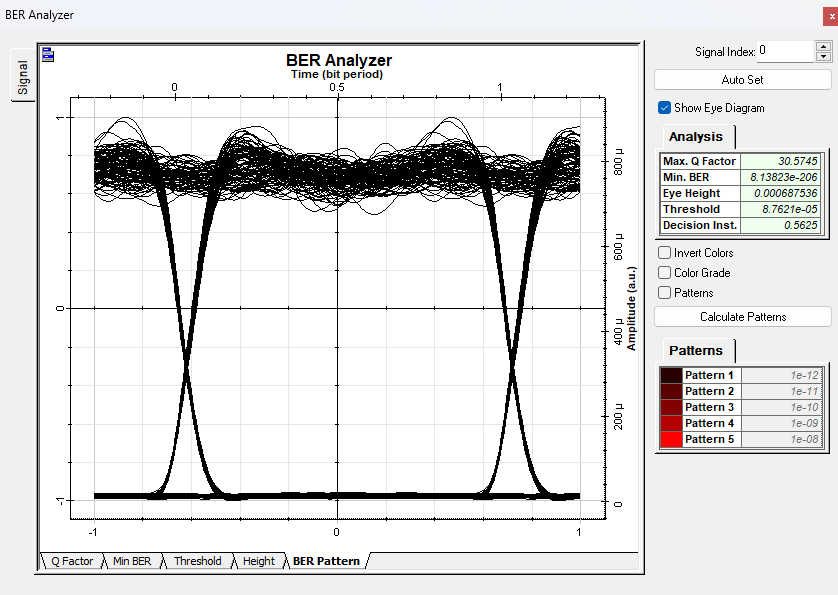
**0 dbm**

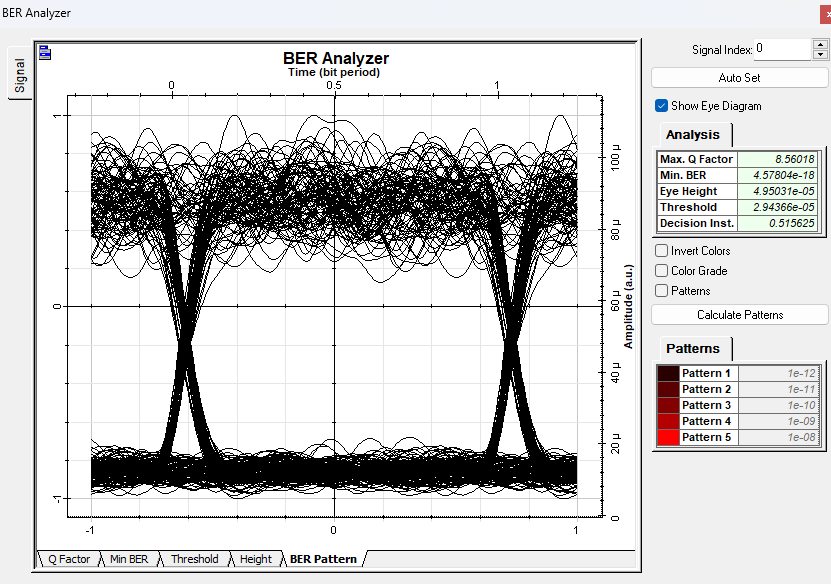


**5 dbm**

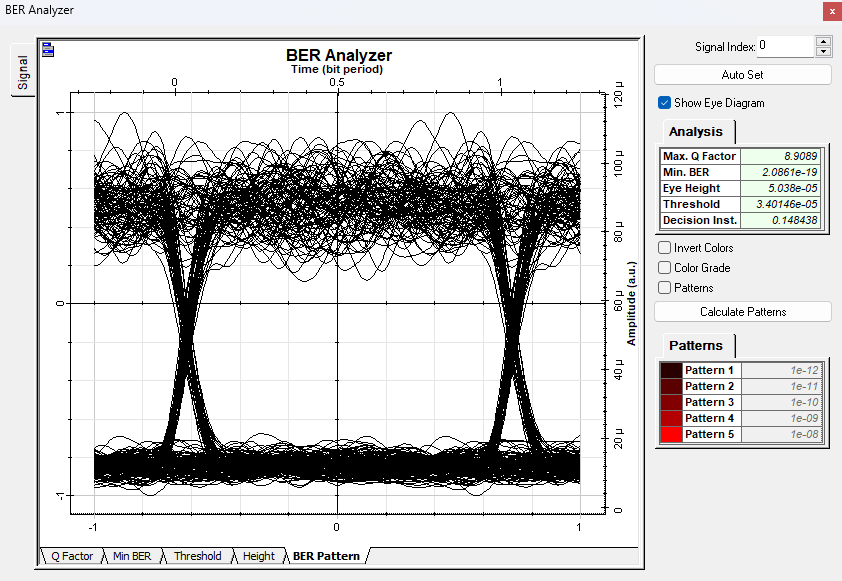


**10 dbm**

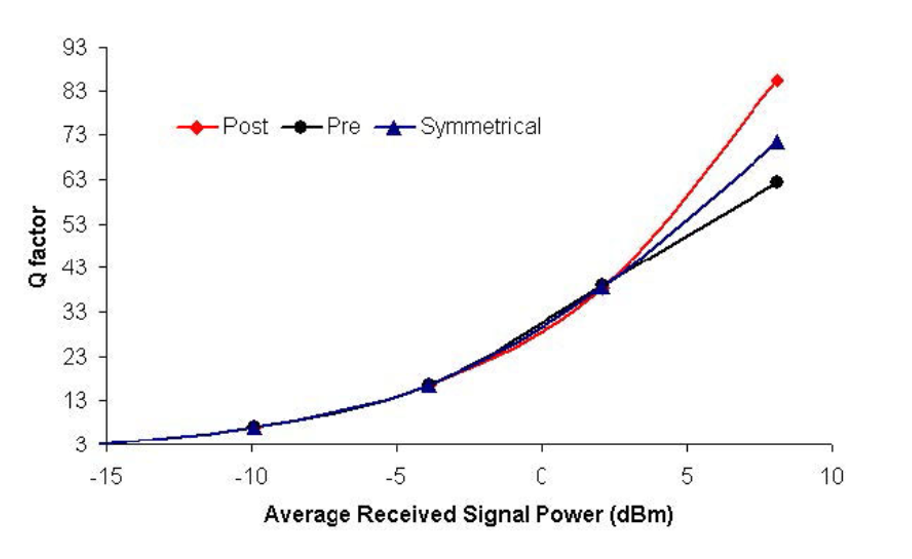


**15 dbm**

**20 dbm**



**Observation:**



**Conclusion:**

Hence analysed the BER, Q-factor and average power for 0dBm, 5dBm, 10dBm, 15dBm and 20dBm of pre, post and pre-post

compensation.