

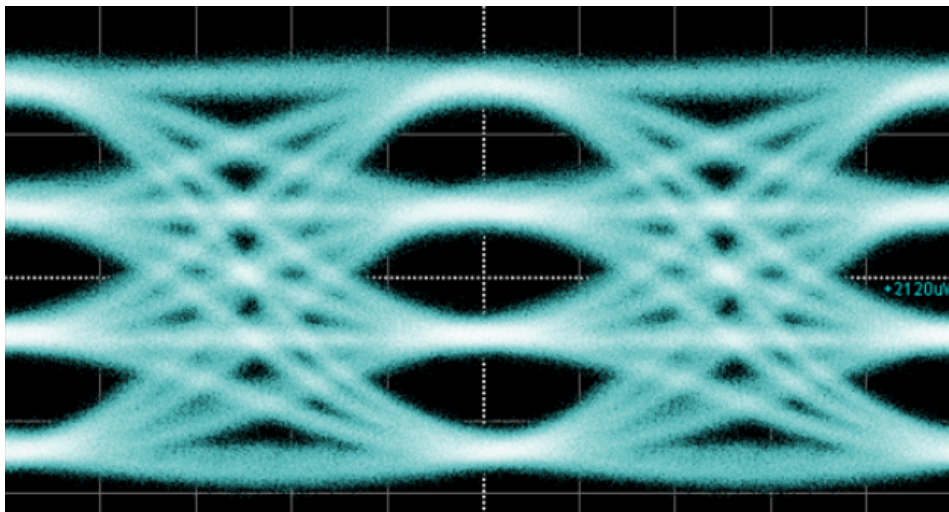
## 53 Gbps PAM4 VCSEL

850 nm multimode transmission  
Data rates up to 53 Gbps  
6-inch process, high volume and uniformity  
GR468 reliability compliant  
IEEE 802.3 cm performance compliant

### Applications :

Optical transceiver, active optical cable for AI computing and cloud data center

53 Gbps PAM4 VCSEL Typical Eye diagram



1x1 singlet and 1x4 arrays



## CHARACTERISTICS

	<b>53 Gbps PAM4 VCSEL</b>
Working Temperature (Module Case Temperature)	<b>(0 – 70 °C)</b>
Modulation Bandwidth	<b>18 GHz</b>
RINOMA	<b>&lt; -136 dB/Hz</b>
Data Transmission Distance	<b>100 m</b>
Estimated Wear-out Life	<b>&gt; 10 years</b>
Die Dimensions for 1X4 array	<b>980 um (Width) * 265 um (Length) * 150 um (Thickness)</b>

 **Notes:**

CTR: 0 °C to +70 °C (32 °F to +158 °F)  
ITR: -40 °C to +85 °C (-40 °F to +185 °F)  
ESR: 25 Gbps ESR means 300 m data transmission