propagated through 60 km of SSMF. We also reported the resulting power penalties for varying propagation distances up to 80 km, induced chromatic dispersions up to 1360 ps/nm, and bandwidth-distance products up to 1000 Gb-km/s.

Quantifiable performance metrics extracted from experimental validation of silicon photonic devices aid in determining the functionality that these devices perform in large-scale photonic network architectures. We demonstrate that this silicon modulator is truly a versatile silicon photonic device, capable of enabling high-performance transmission for a wide range of short-, medium-, and long-haul applications.

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