

COHERENT, INC. AND SUBSIDIARIES

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS (Continued)

8. GOODWILL AND INTANGIBLE ASSETS (Continued)

business, expected to be completed during fiscal 2020, we abandoned the in-process research and development project totaling \$4.7 million and fully amortized the intangible asset. See Note 18, "Restructuring Charges."

The weighted average remaining amortization periods for existing technology, customer relationships, trade names and production know-how are approximately 2.1 years, 6.3 years, 0.1 years and 4.0 years, respectively. Amortization expense for intangible assets during fiscal 2019, 2018, and 2017 was \$61.5 million, \$60.0 million and \$60.6 million, respectively. The change in accumulated amortization also includes \$7.8 million (decrease) and \$2.6 million (decrease) of foreign exchange impact for fiscal 2019 and fiscal 2018, respectively.

Estimated amortization expense for the next five fiscal years and all years thereafter are as follows (in thousands):

	Estimated Amortization Expense
2020	\$ 47,346
2021	17,403
2022	6,799
2023	4,346
2024	3,015
Thereafter	5,904
Total	<u>\$ 84,813</u>