BANNOCKBURN, IL — North American printed circuit board fabricators reported a 5.6% year-over-year drop in orders in November on typical seasonality.

Shipments fell 6.2% from a year ago, bringing the year-to-date shipments down 1.6%. Bookings are down 8.5% for the year. Sequentially, shipments rose 8.6% and bookings increased 3.8%. The book-to-bill ratio declined to 0.97.

The book-to-bill ratio is calculated by dividing the value of orders booked over the past three months by the value of sales billed during the same period from companies in IPC's survey sample. A ratio of more than 1.0 is considered a leading indicator for sales growth over the next two to three months.

For the month, about 86% of the total shipments reported were domestically produced. The rest were produced offshore and resold in North America.

Shipments of rigid boards were down 5.9% and bookings were down 7.2% in November. Year to date, rigid shipments were off 1.7% and bookings were down 9.6%. Sequentially, rigid shipments were up 8.8% and bookings were 2.8% higher. The book-to-bill ratio rigid boards declined to 0.97. Rigid PCBs make up an estimated 89% of North American production.

Flexible circuit shipments were down 10% and bookings were up 13.6% from last year. Year to date, flexible circuit shipments decreased 0.7% and bookings increased 2.7%. Sequentially, shipments increased 6.2% and bookings were up 14.6%. The flexible circuit book-to-bill ratio climbed to parity at 1.0. Value-added services such as assembly were about 55% of the total flex sales for the month.

The data were released by **IPC.**