

Abstract

A Co-operative Business Model for Advancing Compound Semiconductor Technology

Jerry Curtis, Chief Executive Officer, Global Communication Semiconductors, LLC

The compound semiconductor industry, excluding LEDs, is increasingly following the path previously taken by the much larger silicon semiconductor industry, in the use of wafer foundries to supply their wafer manufacturing needs. This trend is driving the rise of foundry business at companies like WIN Semiconductor Corporation, Advanced Wireless Semiconductor Technology (AWSC), and WaveTek Microelectronics Corporation all located in Taiwan.

These wafer foundry's business models are focused on high volume low cost wafers primarily supporting cellular handset PA suppliers. Handset PA dominates the compound semiconductor manufacturing volume and each of these fabs process 6" wafers in high volume. It is less and less likely that IDM companies will continue to invest in wafer fab expansion but will opt to use foundries to meet their growth requirements. Some may eventually decide to outsource all wafer manufacturing and become fabless to better focus their resources on product design and applications.

While handset volume dominates the industry, accounting for ~90% of the total wafers produced, the remaining production is low volume and high technology mix. This presentation will define the business model for Global Communication Semiconductors, LLC (GCS) and how this foundry model benefits the industry and enables innovation from start-ups and established companies by tapping the wafer manufacturing capability and technical expertise of the first pure play foundry and the only one located in the United States.