

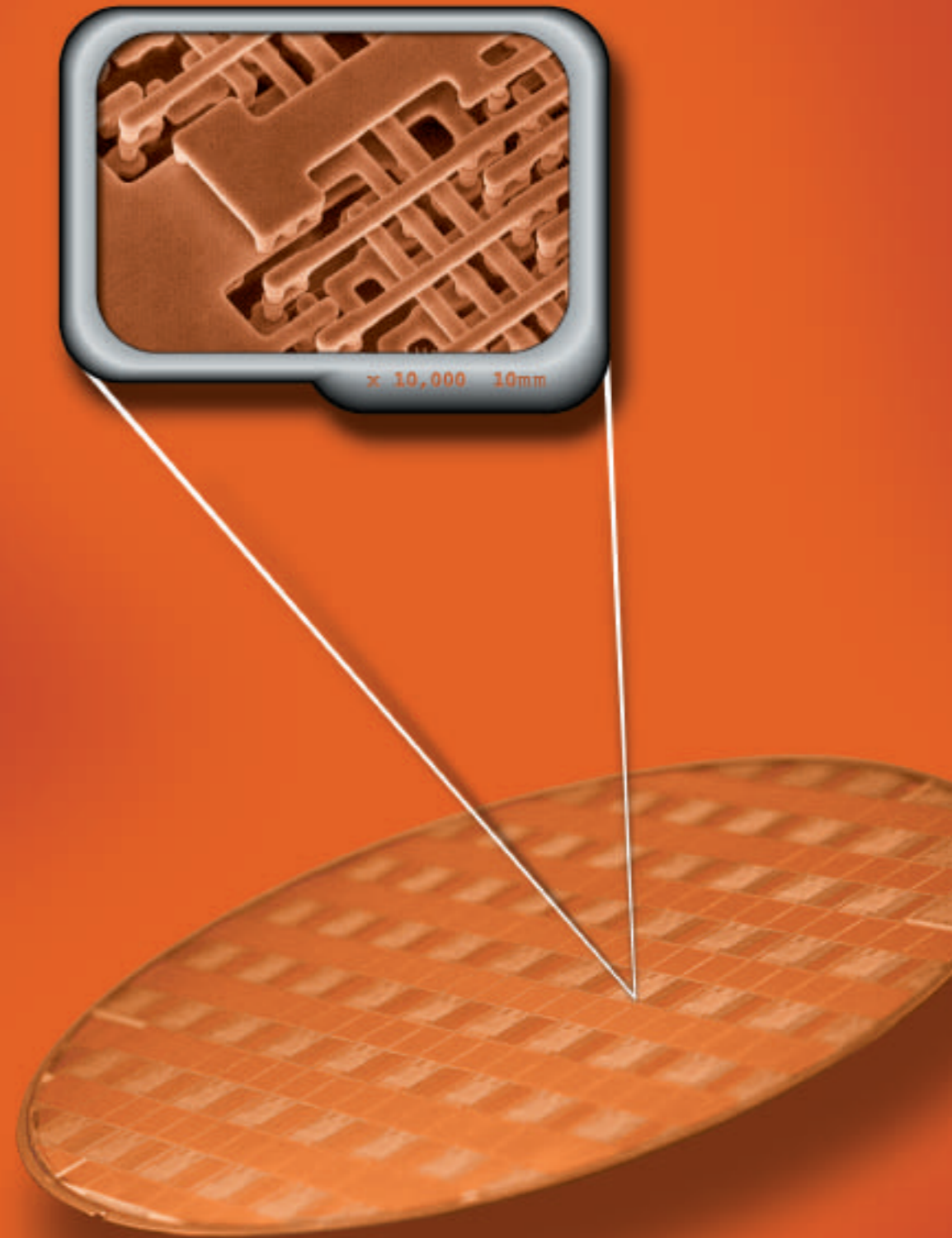
**UNITED
MICROELECTRONICS
CORPORATION**

THE FUTURE OF SILICON

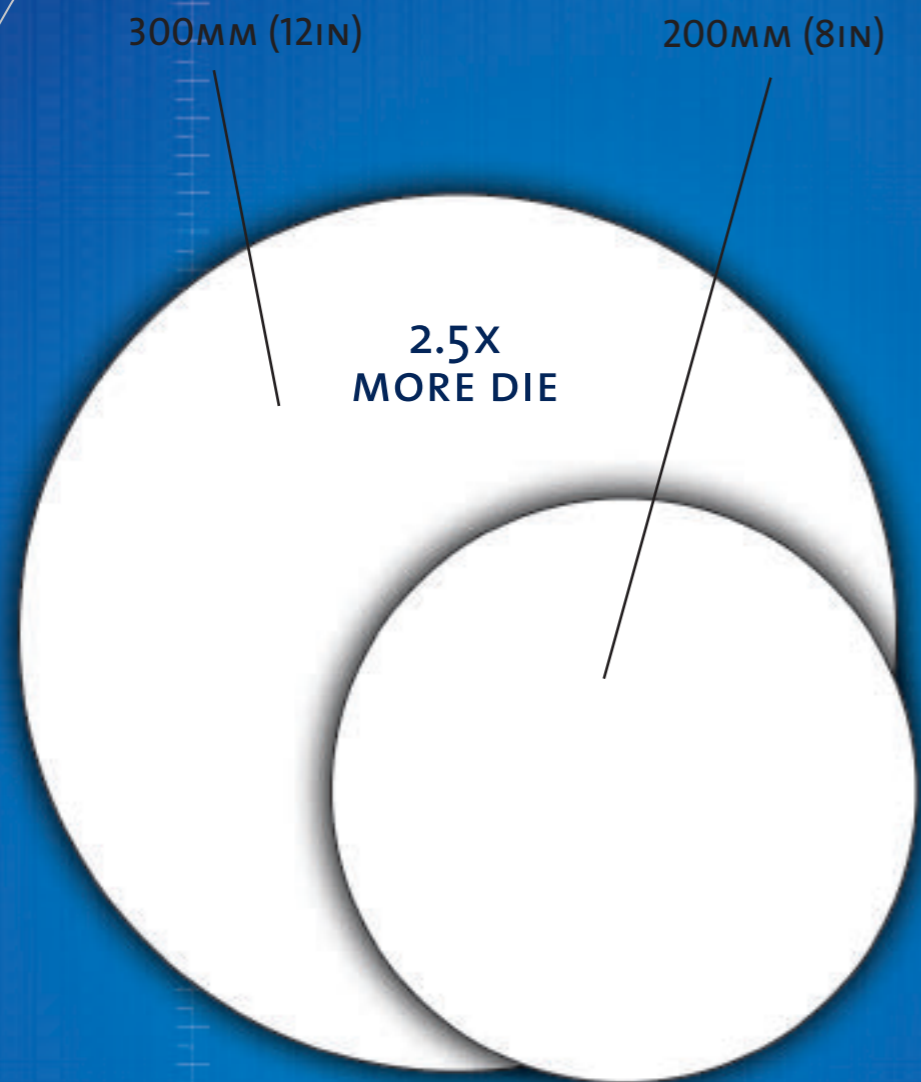
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NEXT GENERATION PROCESS TECHNOLOGY

UMC LEADS THE INDUSTRY IN THE EARLY INTRODUCTION OF STATE-OF-THE-ART TECHNOLOGIES. OUR TECHNOLOGY PORTFOLIO IS AMONG THE MOST ADVANCED AND EXTENSIVE IN THE SEMICONDUCTOR WORLD, WITH OUR VAST R&D RESOURCES TRAINED ON THE DEVELOPMENT OF BREAKTHROUGH TECHNOLOGIES AND MATERIALS THAT INCLUDE ADVANCED LITHOGRAPHY, LOW-K DIELECTRICS, AND COPPER INTERCONNECTS. COPPER IS THE METAL OF CHOICE FOR FUTURE DEEP SUB-MICRON DESIGNS, WITH BETTER ELECTROMIGRATION RESISTANCE, IMPROVED SHEET CONDUCTANCE, AND LOWER VIA RESISTANCE THAN TRADITIONAL ALUMINUM INTERCONNECTS. THESE RESULT IN HIGHER PERFORMANCE FOR CHIPS MANUFACTURED USING ADVANCED PROCESSES BELOW 0.18-MICRON. FOR THESE CUTTING-EDGE PROCESSES, COPPER IS THE PATH TO THE FUTURE, OVERCOMING THE INHERENT LIMITATIONS THAT NEGATE ANY BENEFITS GAINED FROM SHRINKING LINE WIDTHS IN ALUMINUM CHIPS. THE AVAILABILITY OF ADVANCED TECHNOLOGY THROUGH UMC ALLOWS OUR CUSTOMERS TO FULLY REALIZE THE TRUE POTENTIAL OF THEIR DESIGNS.



300MM (12-INCH) FAB LEADER

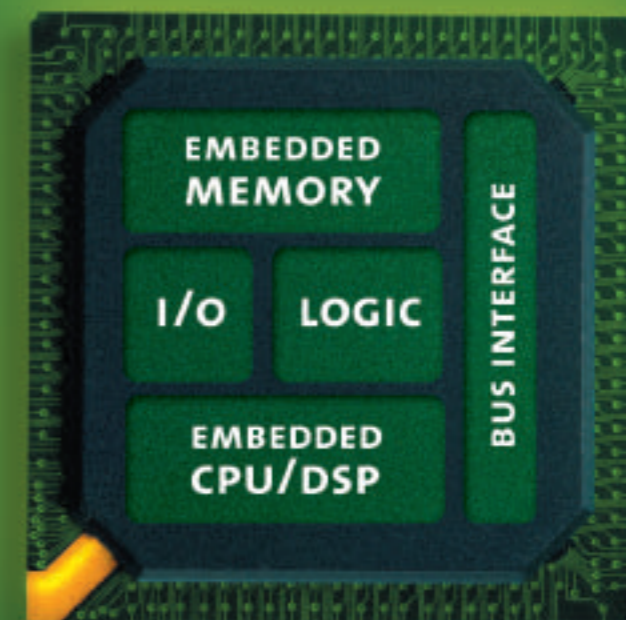
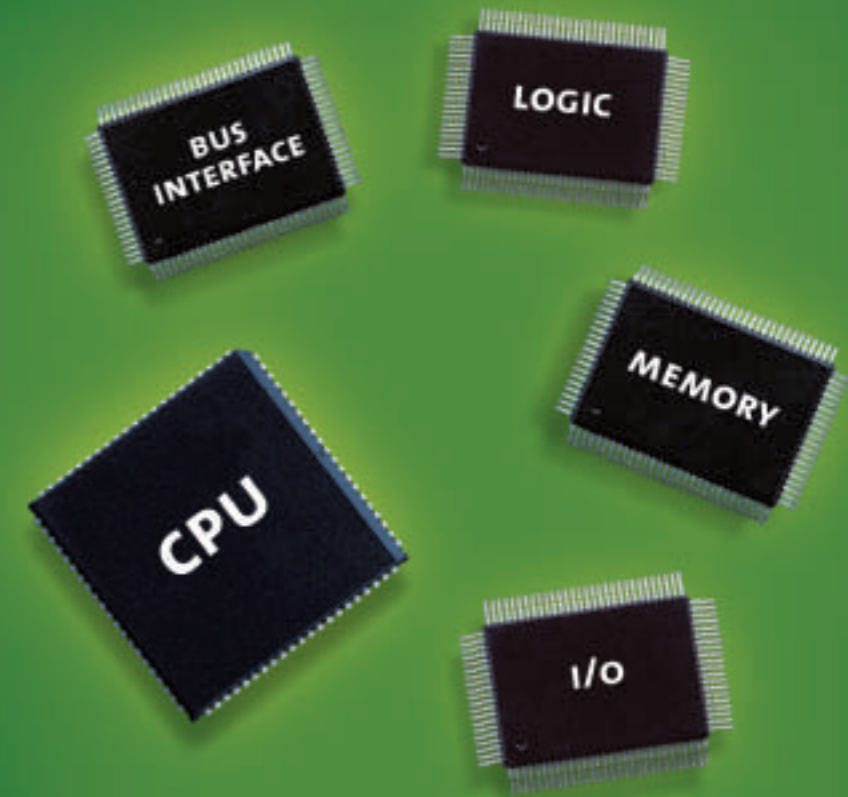


300mm
ACTUAL SIZE

UMC LEADS THE GLOBAL SEMICONDUCTOR INDUSTRY IN THE DEVELOPMENT OF NEXT GENERATION 300MM WAFER MANUFACTURING FACILITIES. THE MOVE TO THE LARGER WAFER IS THE LOGICAL NEXT STEP FOR IC MANUFACTURING, SINCE 12-INCH WAFERS HAVE OVER TWICE THE USABLE AREA OF SILICON, YIELDING AS MUCH AS 2.5X THE DIE OF STANDARD 8-INCH WAFERS. 12-INCH WAFERS ARE ESTIMATED TO REDUCE OVERALL MANUFACTURING COSTS BY UP TO 30 PERCENT OVER 8-INCH WAFERS AT THE 0.13-MICRON GENERATION. THROUGH OUR JOINT VENTURE WITH HITACHI, LTD., UMC WILL OPERATE WHAT IS EXPECTED TO BE THE FIRST 12-INCH FACILITY TO START VOLUME PRODUCTION. WE WILL FOLLOW THIS CLOSELY WITH A WHOLLY OWNED AND OPERATED 12-INCH FAB (FAB 12A) LOCATED IN THE NEWLY OPENED TAINAN SCIENCE PARK. LEADING THE WAY TO THE NEXT GENERATION OF SEMICONDUCTOR MANUFACTURING TECHNOLOGY IS ANOTHER EXAMPLE OF OUR ONGOING COMMITMENT TO CUSTOMER SERVICE.

SYSTEM ON CHIP (SOC) SOLUTIONS

AS CIRCUIT LINE WIDTHS CONTINUE TO DECREASE, DESIGNERS HAVE THE OPPORTUNITY TO COMBINE THE FUNCTIONS OF MULTIPLE CHIPS INTO A SINGLE PIECE OF SILICON. THESE NEW DESIGNS UTILIZE ADVANCED PROCESS TECHNOLOGY TO ACHIEVE THE LEVEL OF INTEGRATION NECESSARY FOR COMPLEX SYSTEM CHIPS OR SYSTEM-ON-CHIPS (SOC). SOC'S HAVE NUMEROUS BENEFITS, NOTABLY HIGHER PERFORMANCE AND LOWER POWER REQUIREMENTS, ALLOWING THESE DESIGNS TO BE UTILIZED IN A BROAD NUMBER OF APPLICATIONS. FOR EXAMPLE, EVERYDAY ITEMS SUCH AS CELL PHONES WILL BECOME LIGHTER, SMALLER, AND CONSUME LESS POWER, AS ONE SOC WILL PERFORM THE DUTIES PREVIOUSLY SHARED BY MULTIPLE CHIPS. THE COMBINATION OF OUR DEEP SUB-MICRON PROCESS TECHNOLOGY AND SOC RESOURCES MAKES UMC THE BEST FOUNDRY FOR COMPANIES AIMING TO DEVELOP TOMORROW'S LEADING EDGE ICs.





Web Based Solutions

UMC'S ONLINE SERVICES ARE DESIGNED TO GIVE OUR CUSTOMERS A LEVEL OF CONVENIENCE AND FLEXIBILITY FOUND NOWHERE ELSE IN THE INDUSTRY. CUSTOMERS CAN TRACK THE PROGRESS OF THEIR WAFERS THROUGH THE ENTIRE MANUFACTURING PROCESS. THEY CAN ALSO EXECUTE COMPLEX ORDER MODIFICATIONS, REQUEST CAPACITY ALLOCATION, OR DOWNLOAD THE LATEST TECHNICAL DATA NECESSARY TO COMPLETE THEIR PRODUCT DESIGN ON A 24-HOUR BASIS FROM ANYWHERE IN THE WORLD USING AN INTERNET-ENABLED COMPUTER. UMC IS TAKING ADVANTAGE OF THE INTERNET TO CONSTANTLY ENHANCE CUSTOMER SERVICES. IN TODAY'S COMPETITIVE MARKETS, ROUND-THE-CLOCK ACCESS TO ALL ASPECTS OF UMC'S FOUNDRY SERVICES CAN MEAN THE DIFFERENCE BETWEEN FAILURE AND SUCCESS.