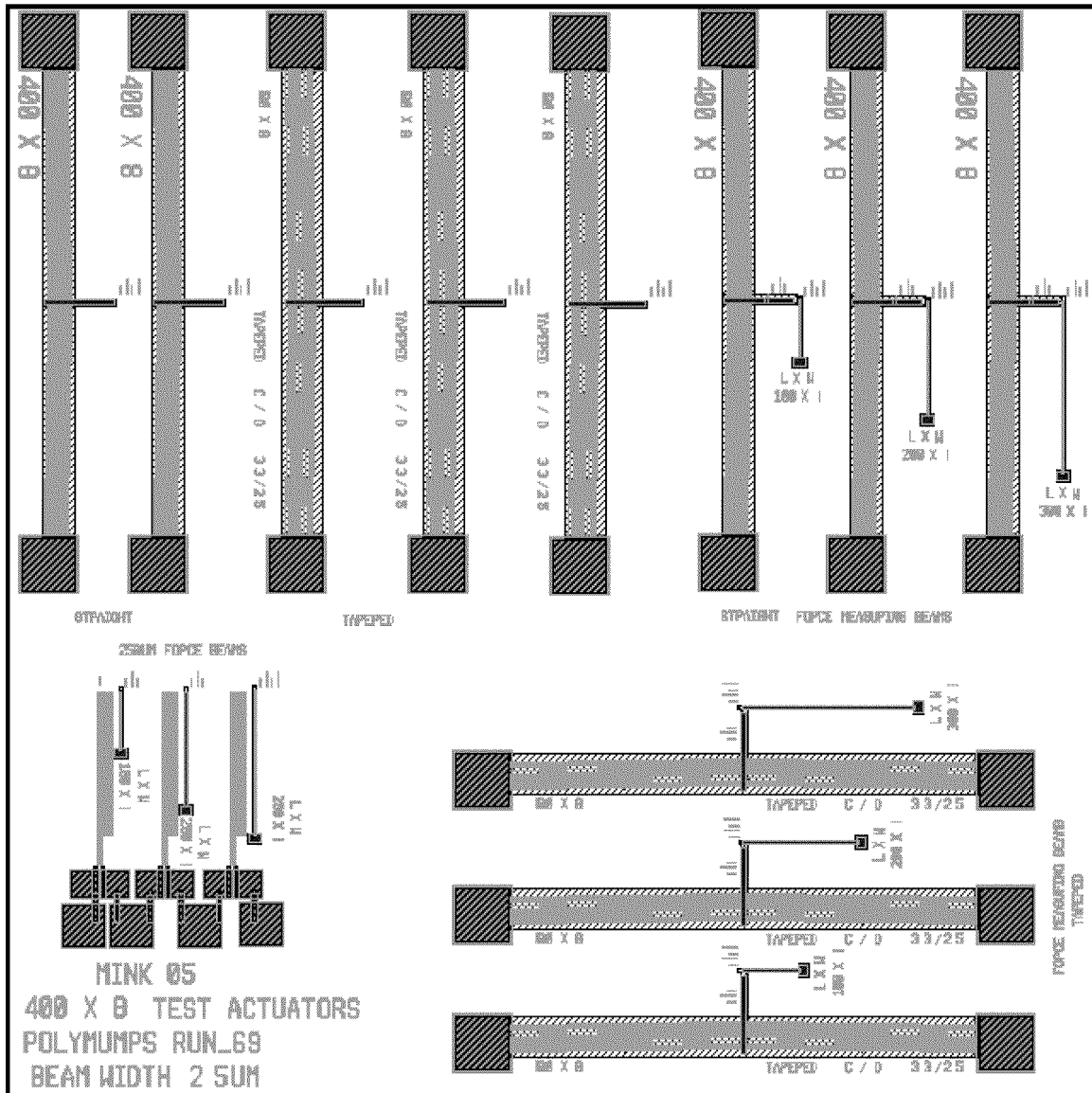
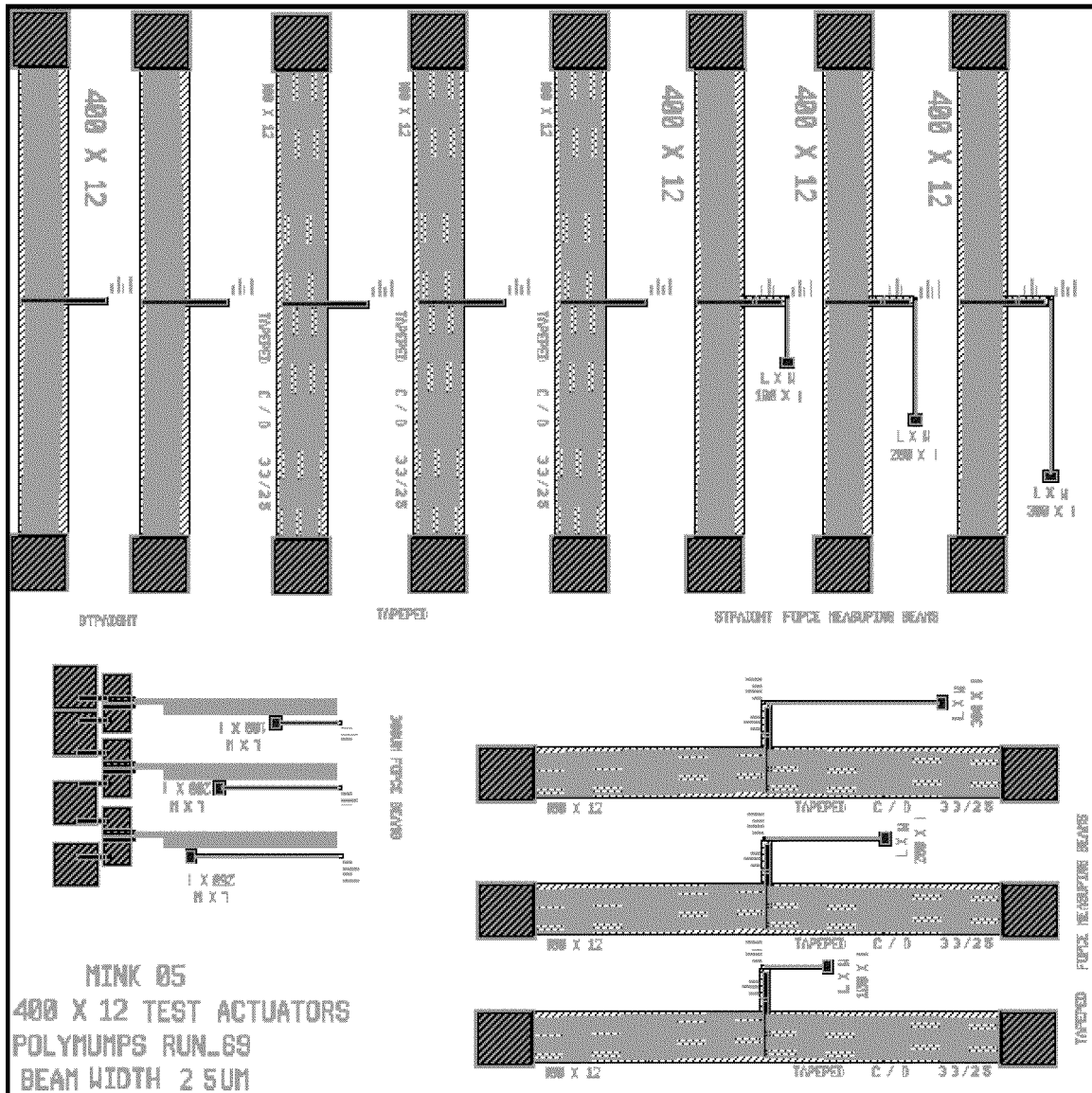
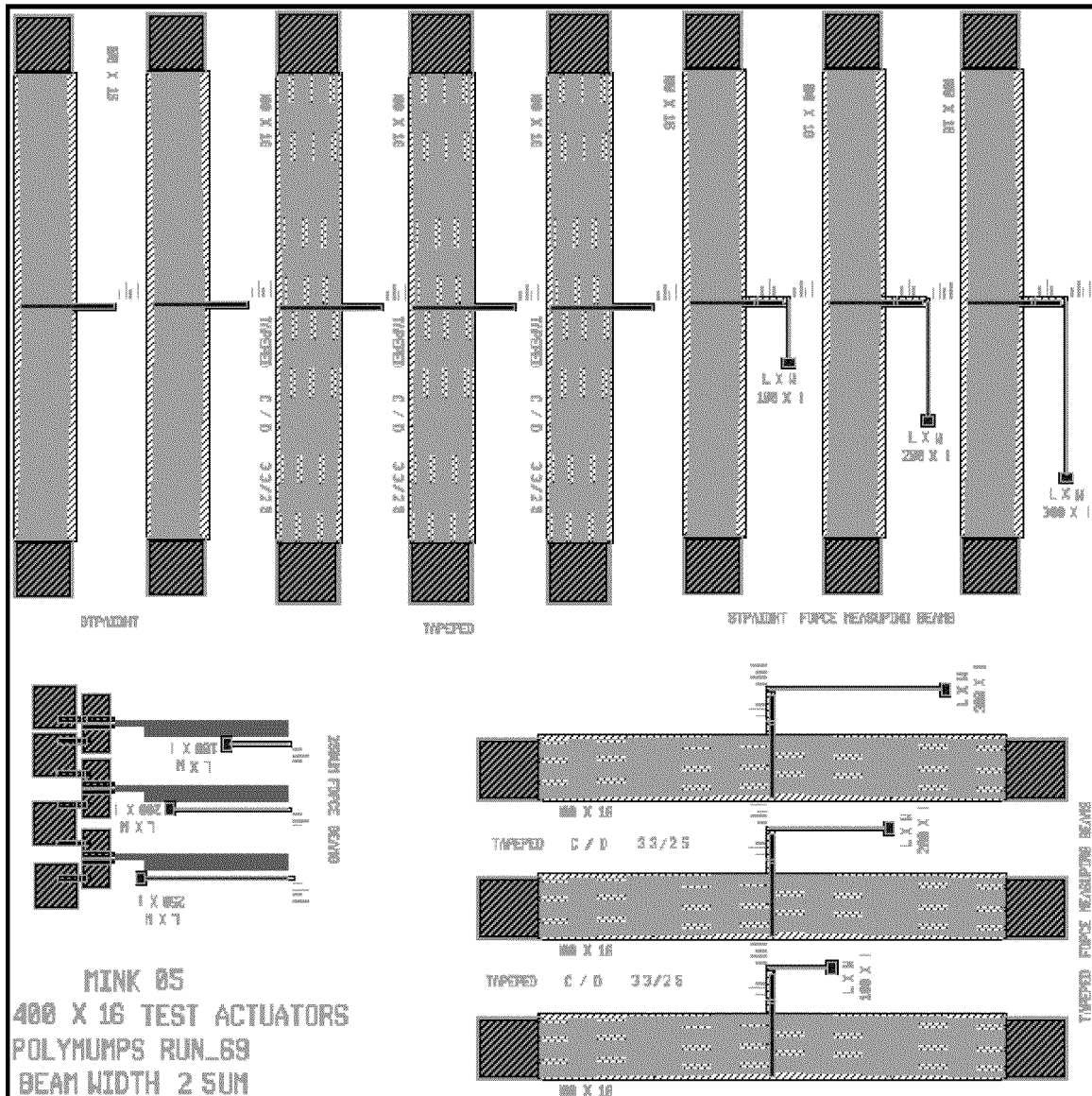




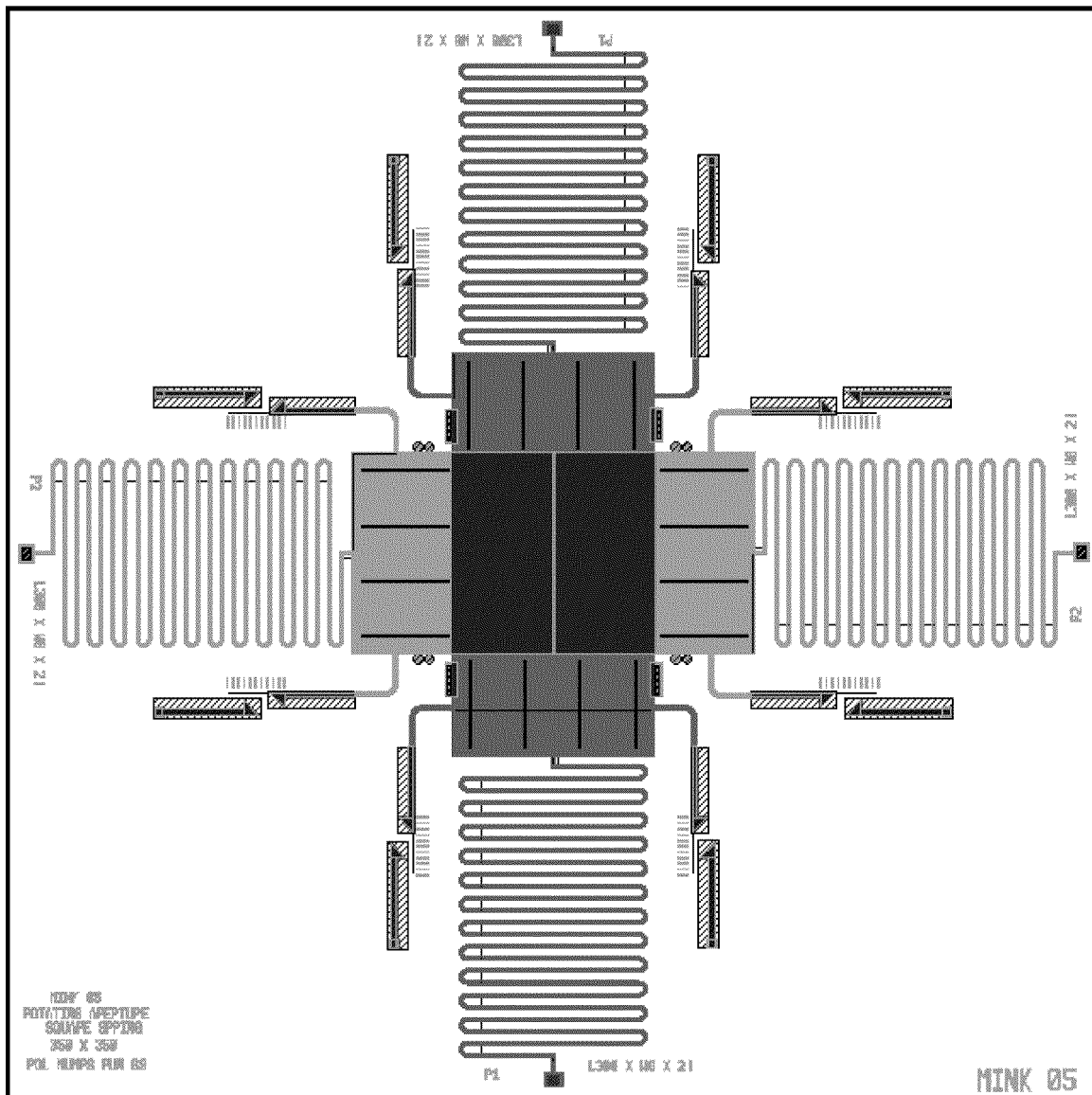
PolyMUMPs Run No.:	69
Working Nomenclature	Die #17
Fabricated Devices:	Chevron Electrothermal Actuators Test Die: - 8 × (400 µm x 2.5 µm) Arms; Straight & Tapered - Stand-Alone Actuators - Actuators with 4 µm-Wide Force Measuring Beams 250 µm Poly2 Electrothermal Actuators with 4 µm-Wide Force Measuring Beams
Main Uses:	Test Operation of Chevron Electrothermal Actuators Measure Actuator Deflection, Drive Voltage, and Resistance Measure Deflection on Force Beams to Determine Actuator Force



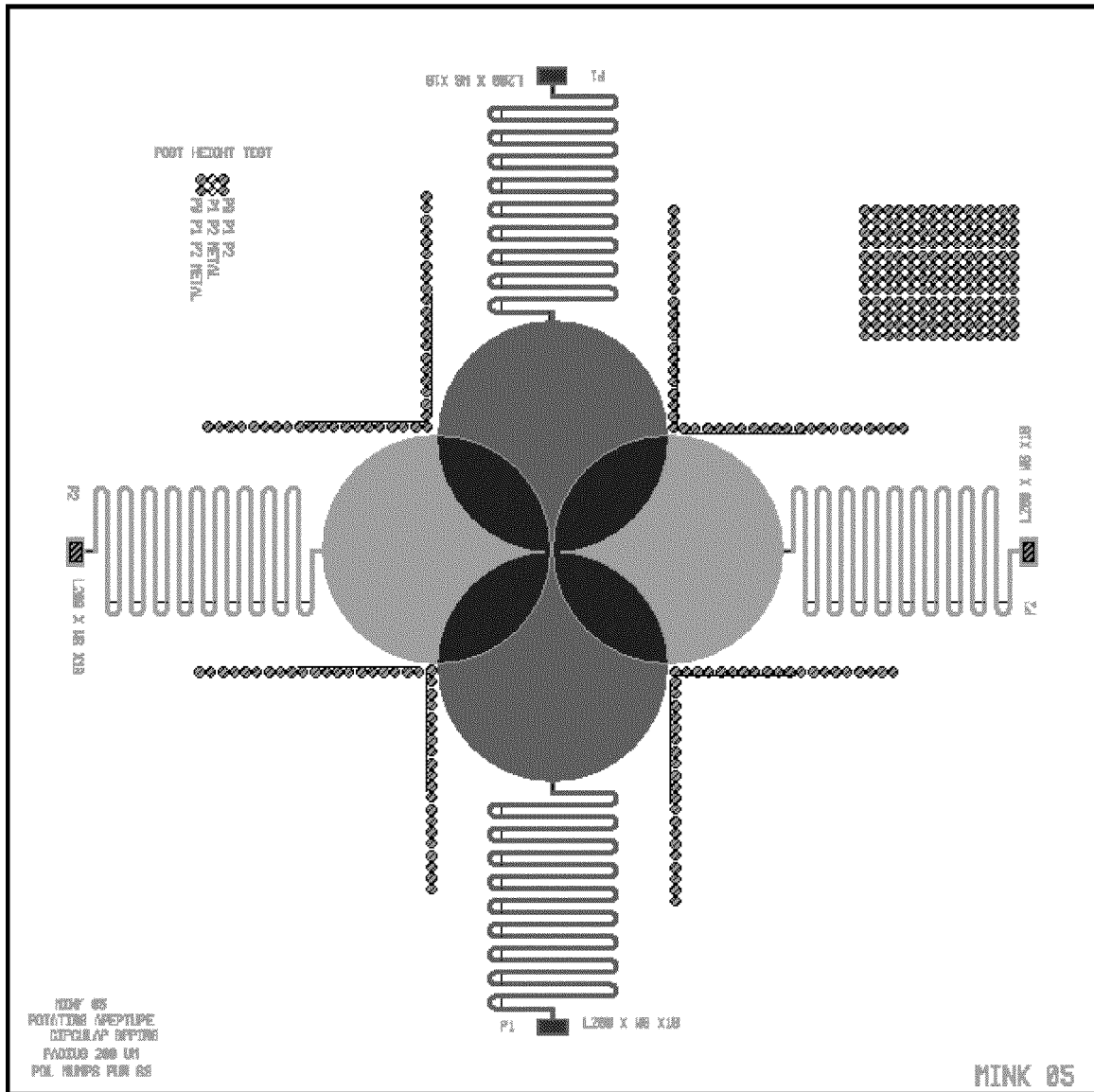
PolyMUMPs Run No.:	69
Working Nomenclature	Die #18
Fabricated Devices:	Chevron Electrothermal Actuators Test Die: - 12 × (400 μm x 2.5 μm) Arms; Straight & Tapered - Stand-Alone Actuators - Actuators with 4 μm-Wide Force Measuring Beams 300 μm Poly2 Electrothermal Actuators with 4 μm-Wide Force Measuring Beams
Main Uses:	Test Operation of Chevron Electrothermal Actuators Measure Actuator Deflection, Drive Voltage, and Resistance Measure Deflection on Force Beams to Determine Actuator Force



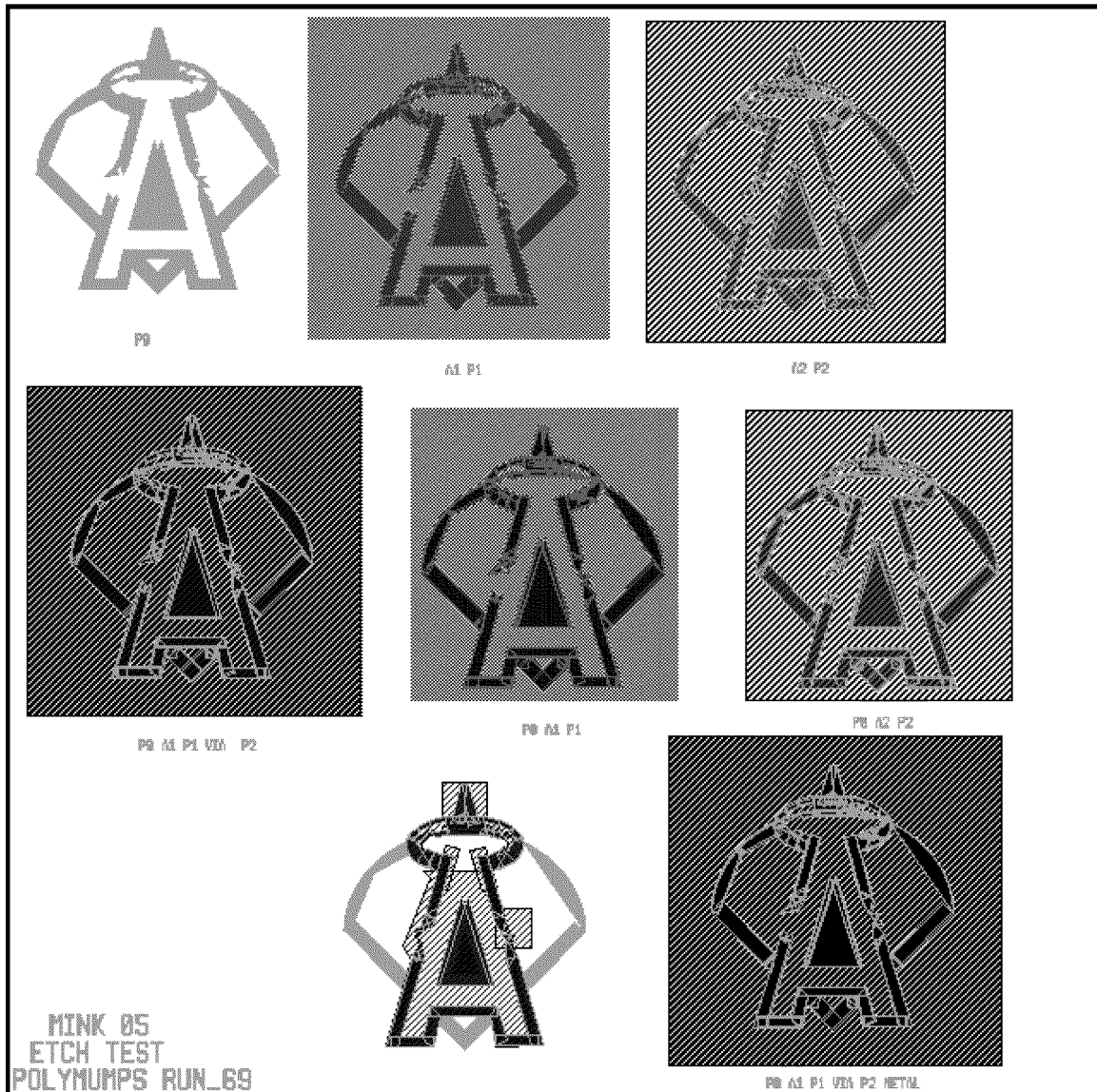
PolyMUMPs Run No.:	69
Working Nomenclature	Die #19
Fabricated Devices:	Chevron Electrothermal Actuators Test Die: - 16 × (400 μm x 2.5 μm) Arms; Straight & Tapered - Stand-Alone Actuators - Actuators with 4 μm-Wide Force Measuring Beams 250 μm Poly1 Electrothermal Actuators with 4 μm-Wide Force Measuring Beams
Main Uses:	Test Operation of Chevron Electrothermal Actuators Measure Actuator Deflection, Drive Voltage, and Resistance Measure Deflection on Force Beams to Determine Actuator Force



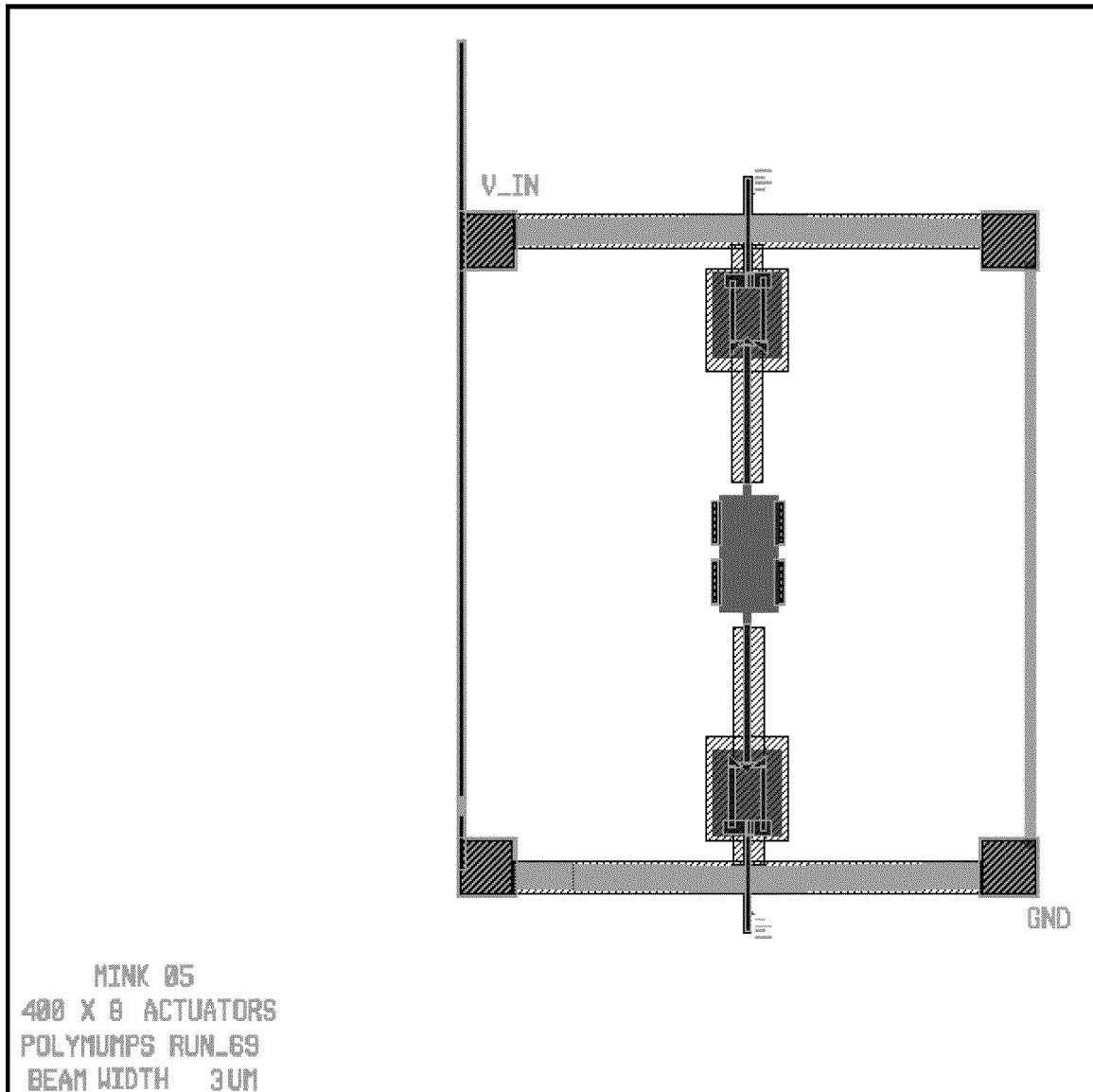
PolyMUMPs Run No.:	69
Working Nomenclature	Die #20
Fabricated Devices:	Rotating S&A Interrupter Device (with Latches): - 350 μm x 350 μm Square Plates - Poly1/Poly2 Stacked Latches - Guide Rails on Poly1 Plates - Guide Posts for Poly2 Plates - Dimpled Springs
Main Uses:	Test Operation of Rotating S&A Interrupter Device Measure Spin Rate Required to Latch Observe Effects of Guide Rails on Poly1 Sliding Plate Observe Effects of Guide Posts on Poly2 Sliding Plate Observe/Measure Latching Capability



PolyMUMPs Run No.:	69
Working Nomenclature	Die #21
Fabricated Devices:	Rotating S&A Interrupter Device : - 200 μm Radius Plates - Guide Posts for Both Poly1 and Poly2 Plates - Dimpled Springs Fabrication Process Test Structures
Main Uses:	Test Operation of Rotating S&A Interrupter Device Determine Spin Rate Required to Observe Motion Observe Effects of Guide Posts on Sliding Plate Measure Heights of Fabricated Test Posts



PolyMUMPs Run No.:	69
Working Nomenclature	Die #22
Fabricated Devices:	Layer Etch Process Test Structures: - Poly0 - Anchor1 and Poly1 - Anchor2 and Poly2 - Poly0, Anchor1, Poly1, Via, and Poly2 - Poly0, Anchor1, and Poly1 - Poly0, Anchor2, and Poly2 - Poly0, Anchor1, Poly1, Via, Poly2, and Metal - Other Combination
Main Uses:	Observe/Measure Post-Process Etched Depths and Layer Thickness



PolyMUMPs Run No.:	69
Working Nomenclature	Die #24
Fabricated Devices:	Modified S&A Interrupter Device: Two Chevron Actuators 8 × (400 μm × 3 μm) Arms, Poly1 Interrupter Plates Latch Mechanism Connects Chevron to Plate
Main Uses:	Test Operation of Modified S&A Interrupter Device Observe Feasibility of Modified Latch Capability Measure Actuator Deflection, System Resistance, and Drive Power Limit

Vita

Captain Steven S. Mink enlisted in the U. S States Air Force in 1987. He was accepted into the Airman Education and Commissioning Program in 1997, and attended the University of California, Irvine. In 2001, he graduated Cum Laude with a Bachelor of Science degree in Electrical Engineering and a specialization in Electro-Optics and Solid-State Devices. After earning his commission in Officer Training School, Captain Mink was assigned as a Test Engineer to the tri-agency Integrated Program Office that manages the National Polar-orbiting Operational Environmental Satellite System. In 2004, he was assigned to the Air Force Institute of Technology to pursue a Master of Science degree in Electrical Engineering with a focus on Microelectronics and Laser/Electro-Optical Systems. Upon graduation, Capt Mink will be assigned to the Electro-Optical Sensor Technology Division at the Air Force Research Laboratory, Sensors Directorate.