Statement of Work for the Fabrication of Pressure and Temperature Sensors in SiC

Objective:

Fabricate hierarchical layers of metallization, silicon dioxide deposition, wet and dry etching to realize functional silicon carbide pressure and temperature sensors. The single crystal 4H-SiC wafers are 4" diameter and 350 microns thick

The fabrication steps will be derived from technical interaction with the vendor. However, the generic processes and number of sequences leading to the realization of the product are provided below.

Steps	Process Description	Number of Sequences
1.	Quartz deposition (1-2 microns)	4
2.	Spin photoresist.	7
3.	Soft bake	7
4.	UV Expose	7
5.	Develop	7
6.	Hard bake	7
7.	Wet etch Al	3
8.	Dry etch SiO2	4
9.	Plasma Clean	3
10.	Solvent clean	8
11.	Ti (200 A)/Pt (3 microns)	1
12.	Ti (1000 A)/$TaSi_2$ (3000 A)/Al (2 microns)	1
13.	Ti (2000 A)/$TaSi_2$ (3000 A)	1
14.	Rapid thermal Anneal, 900-1000 C, vacuum	2
15.	Ti (1000 A)/Pt (500 A)	1
16.	Ti (1000 A)/Pt (1 micron)	1
17.	Ti (200 A)/$TaSi_2$ (1000 A)/Al (2 microns)	1
18.	Ti (100 A)/Pt (3000 A)/Au (.5 um)	1
19.	Metal Etches	6

Delivery of final products to customer shall be within 20 weeks upon receipt of purchase order.