Now, InAlN/ GaN HEMT is deliverable

On Sapphire

- \( \text{In}_{0.18}\text{Al}_{0.82}\text{N} \) (~9 nm)
- \( \text{AlN} \) (~1 nm)
- 2DEG
- \( \text{GaN} \) (~2 \( \mu \)m)
- Buffer layer
- Sap. sub.

HEMT surface

2 \( \mu \)m x 2 \( \mu \)m
RMS: 0.53 nm

Other substrates are also available;
- Si: up to 6 inch
- SiC: up to 4 inch

- \( \text{In}_{0.18}\text{Al}_{0.82}\text{N} \) (~9 nm)

- Number of Test points: 28
- Average value: 238.7 ohm/sq.
- Max. value: 246.7 ohm/sq.
- Min. value: 231.5 ohm/sq.
- Variation: 6.36 %
- Std. dev. from average: 4.22 ohm/sq.
- Wafer Uniformity: 1.76 %
- Contour Interval value: 1.5

- Mobility (Av.): 1489 cm²/Vs
- Sheet carrier density: \( 1.8 \times 10^{13} \) cm⁻²
(Example: on 3 inch Sapphire)