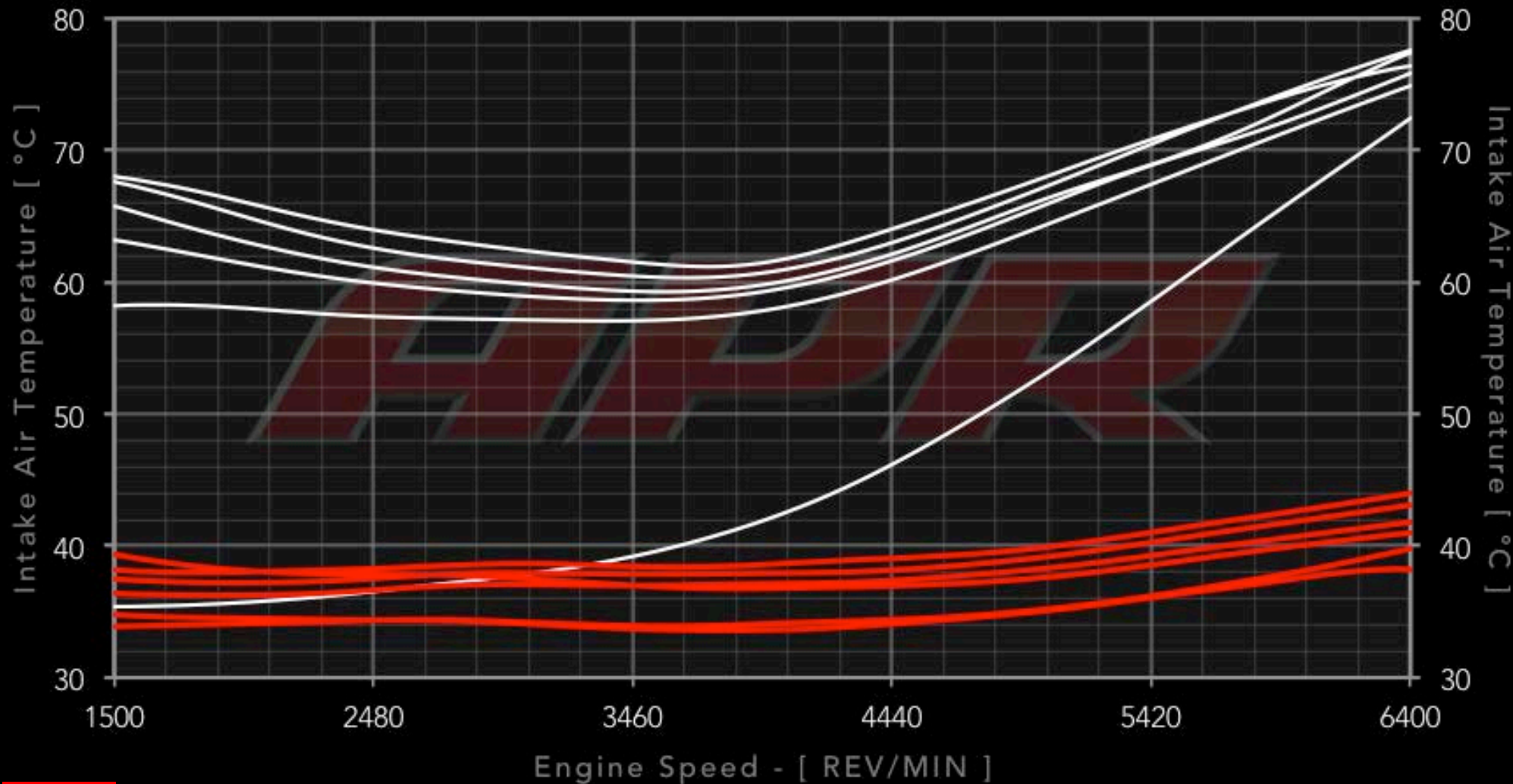


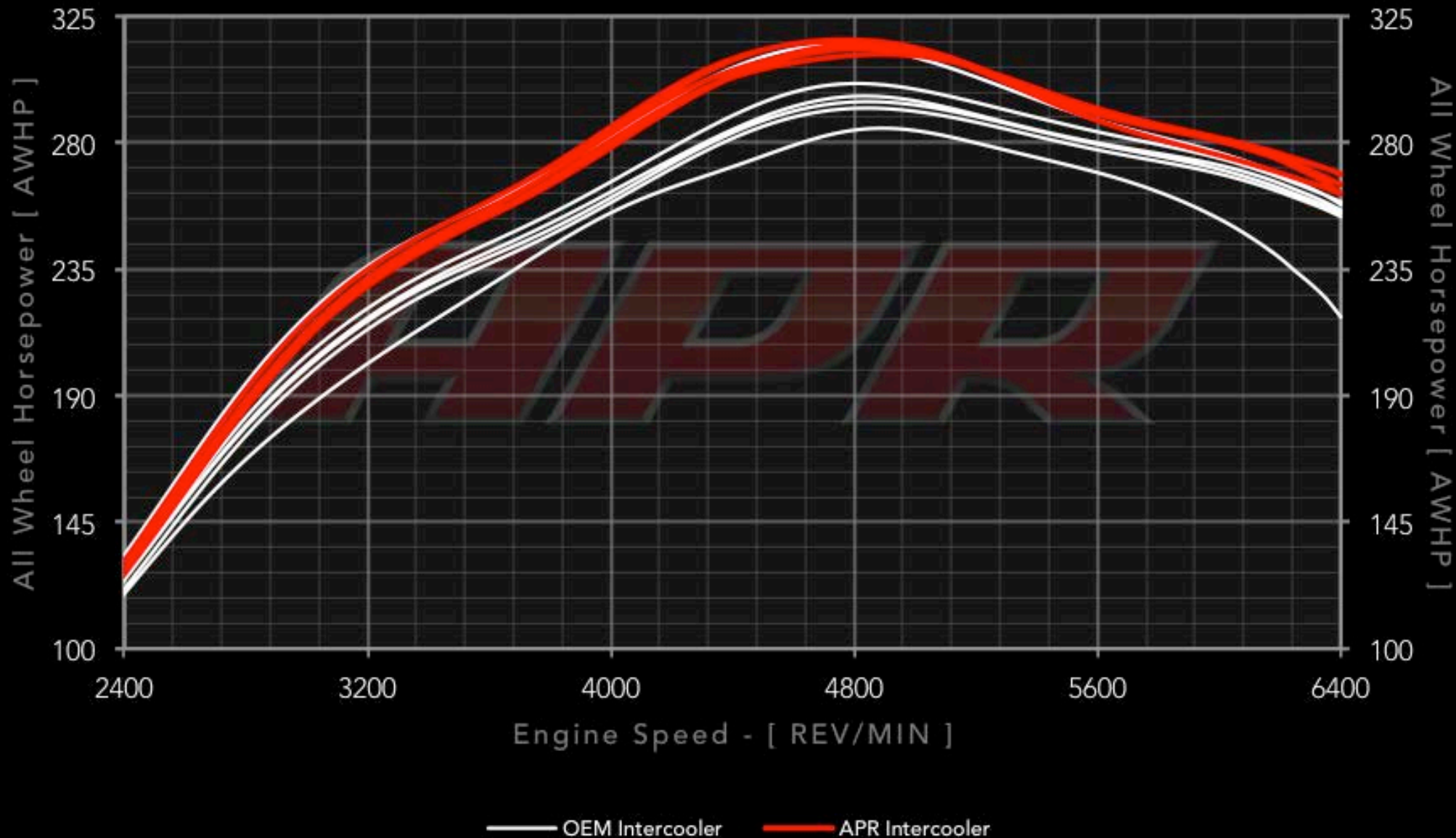
2.0 TFSI B9 A4 Intercooler Testing APR vs Stock - 6 Back to Back Dyno Pulls - Lower is Better



— OEM Intercooler — APR Intercooler

2.0 TFSI B9 A4 Intercooler Testing

APR vs Stock - 6 Back to Back Dyno Pulls - Higher is Better



Testing

APR's engineers conducted a multitude of tests both on the street and on the dyno with thermocouples and pressure transducers placed at the inlet and outlet of the intercooler during the design phase. Data from these tests were used to choose the intercooler core available today. With the intercooler in its final production form, tests were conducted against the factory intercooler to measure the effectiveness of each system.

Testing conducted on the dyno provided a semi controlled environment for back-to-back stress testing the two systems. Utilizing a B9 A4 2.0T at APR Stage I power levels with 100 octanes in the tank to prevent timing pull associated with higher intake air temperature seen with the stock intercooler, six back-to-back dyno pulls were conducted with minimal cooldown time between runs. APR's ECU Explorer high resolution datalogging system was used for raw sensor data collection.

The APR intercooler saw a beginning IAT of 33.90°C that rose slightly to 38.20°C by the end of the first dyno pull. IAT remained consistent during the six back-to-back pulls, resulting in a final IAT of only 44.00°C! The system effectively rejected heat soak and produced consistent horsepower results stacking evenly on top of each previous run.

The OEM intercooler did not fare so well. With a starting IAT of 33.40°C, IAT skyrocketed during the first pull, settling at a blazing 72.45°C, or 34.25°C higher than the APR Intercooler. IAT continued to climb during the six back-to-back pulls, resulting in a final IAT of 77.8°C. **With each new pull, horsepower dropped considerably, ultimately resulting in horsepower figures as low as 45 AWHP less than those captured with the APR intercooler!**

Testing Data Report

	Start	Run 1	Run 2	Run 3	Run 4	Run 5	Run 6
OEM	35.40 °C	72.45 °C	74.90 °C	75.85 °C	76.40 °C	77.74 °C	77.8 °C
APR	33.90 °C	38.20 °C	39.80 °C	41.00 °C	41.80 °C	43.10 °C	44.00 °C
Delta	-1.50 °C	-34.25 °C	-35.10 °C	-34.85 °C	-34.60 °C	-34.30 °C	-33.80 °C

