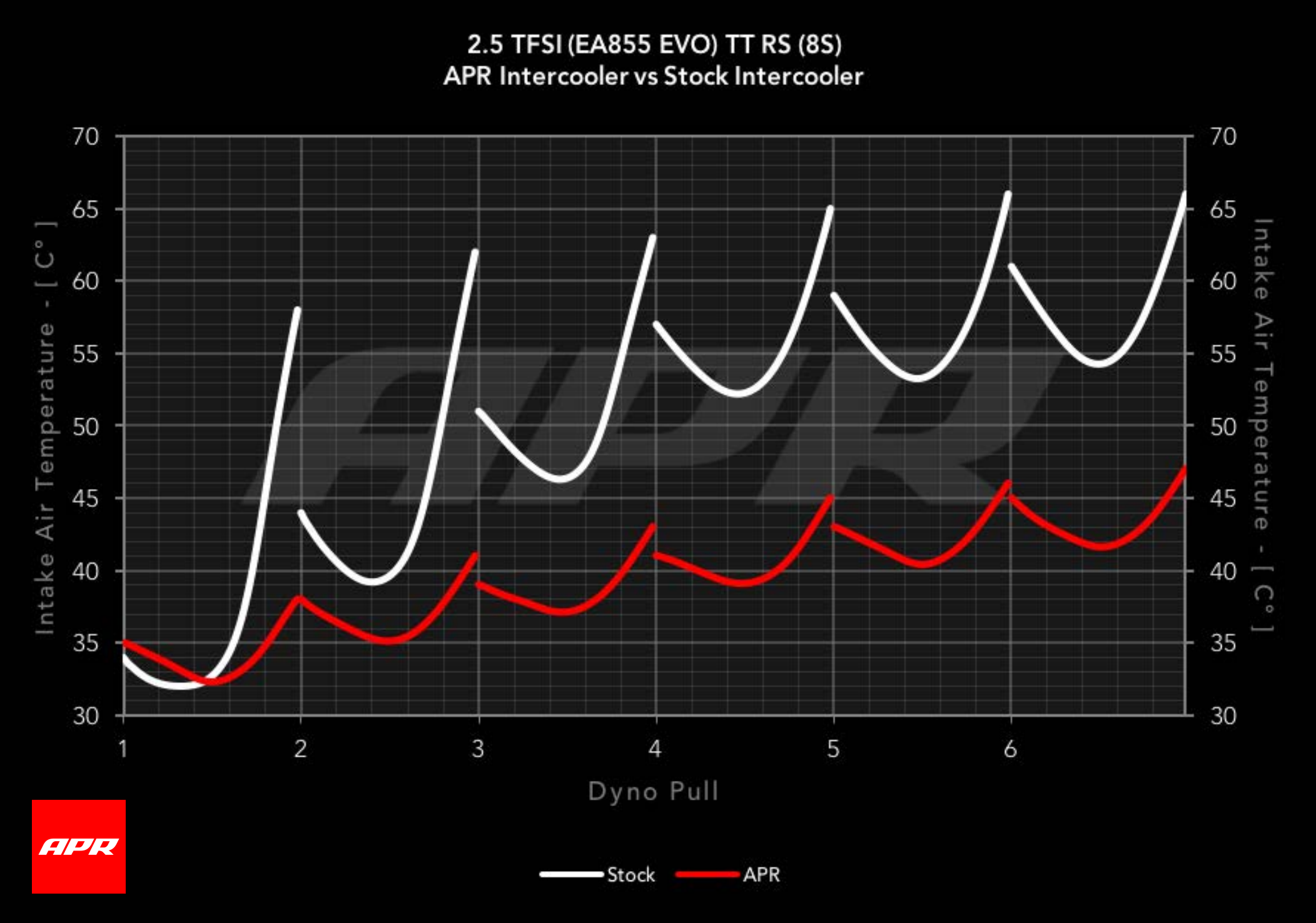
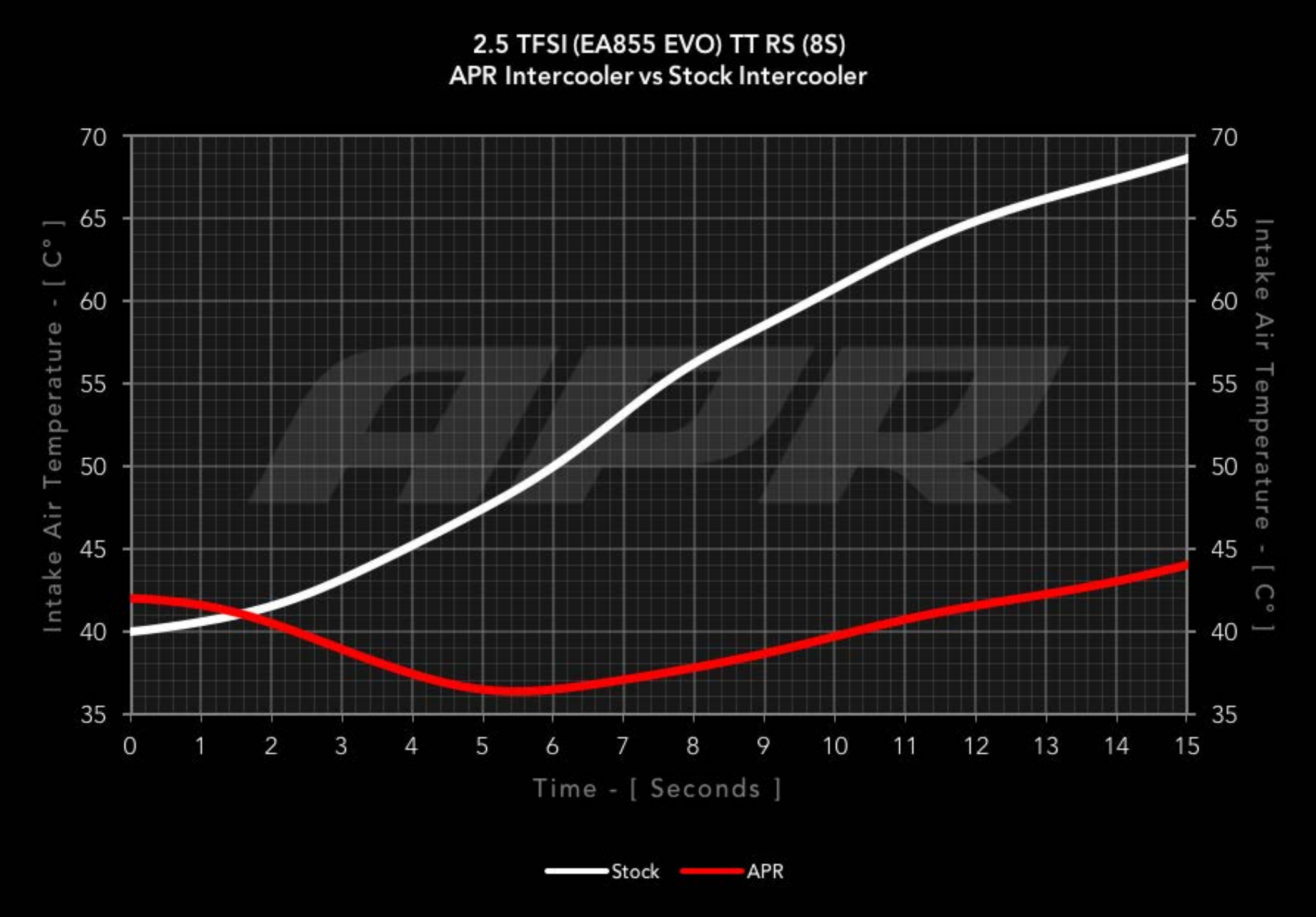
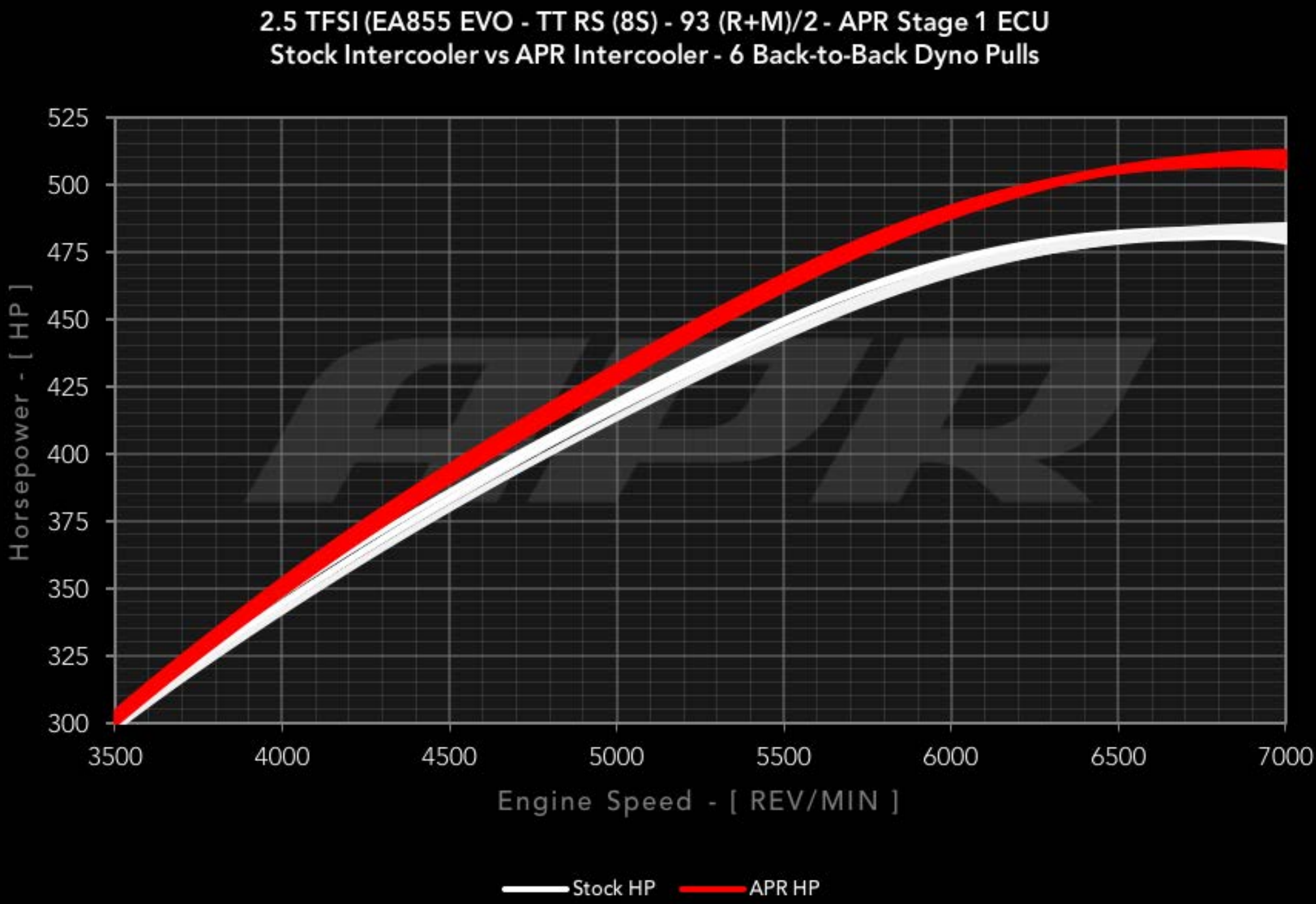
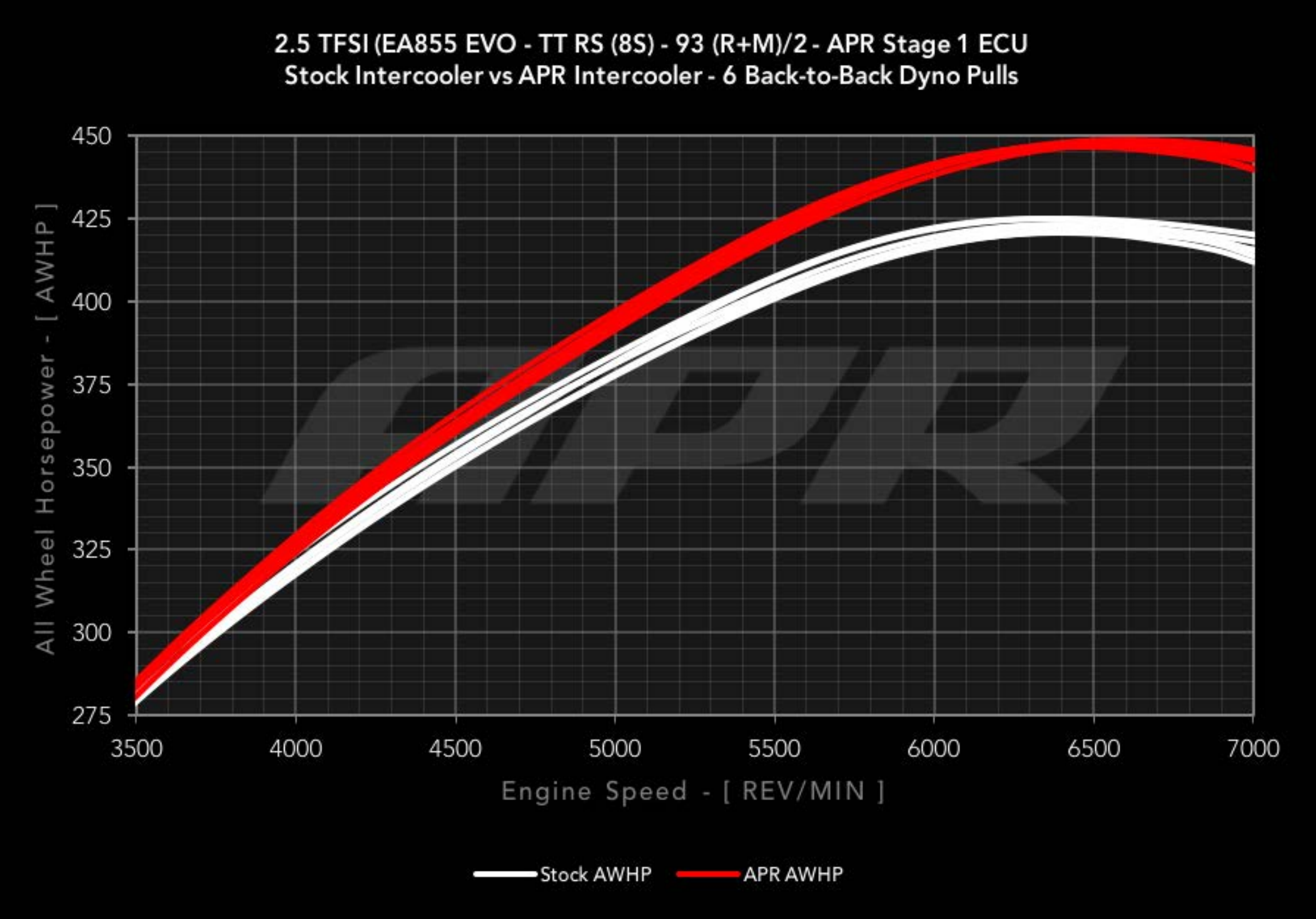
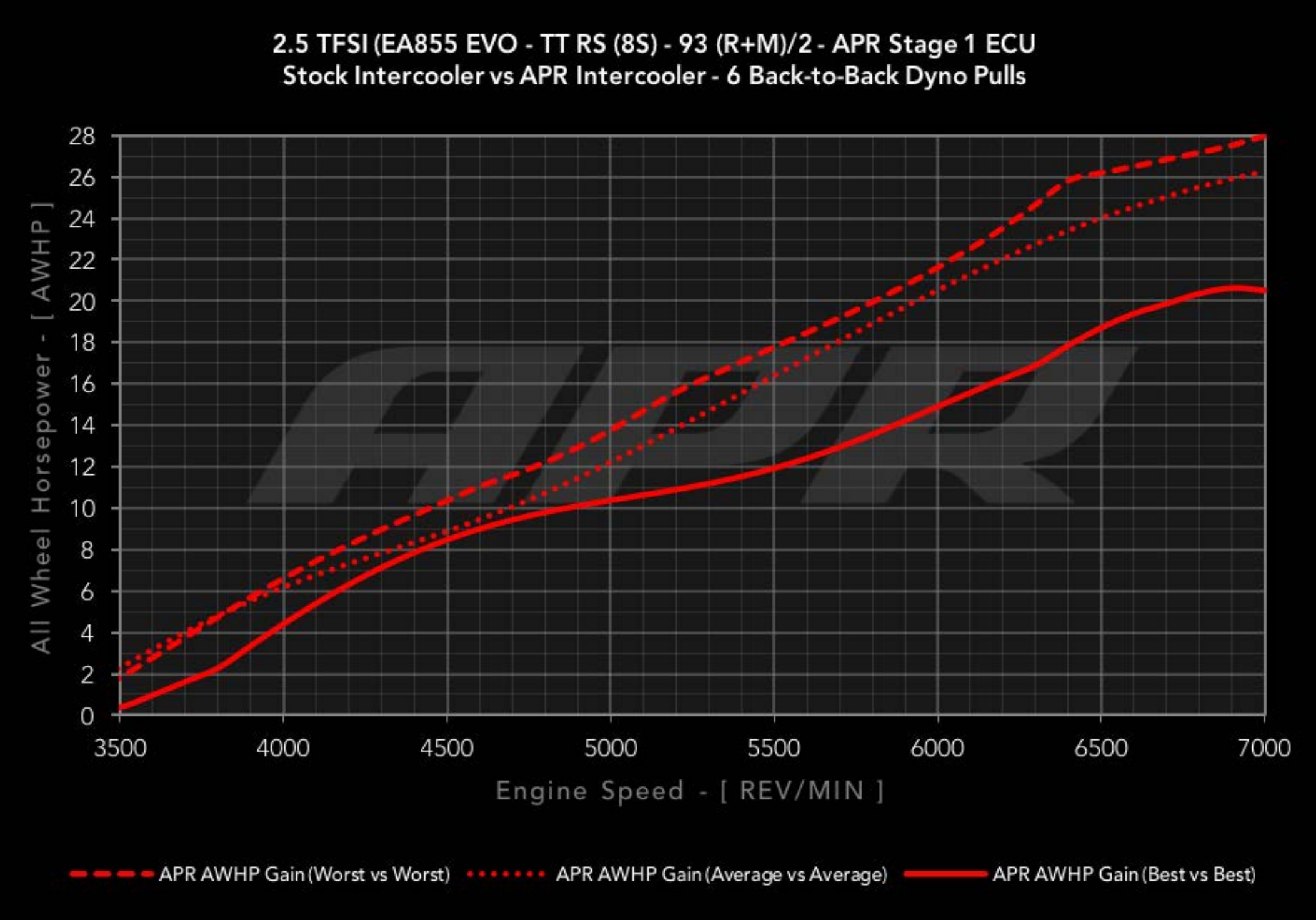

2.5 TFSI (EA855 EVO) TT RS (8S)
APR Intercooler vs Stock Intercooler
Intake Air Temperature - [C°]
70
65
60
55
50
45
40
35
30
1
2
3
4
5
6
Dyno Pull
Stock
APR


2.5 TFSI (EA855 EVO) TT RS (8S)
APR Intercooler vs Stock Intercooler
Intake Air Temperature - [C°]
70
65
60
55
50
45
40
35
0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
Time - [Seconds]
Stock
APR

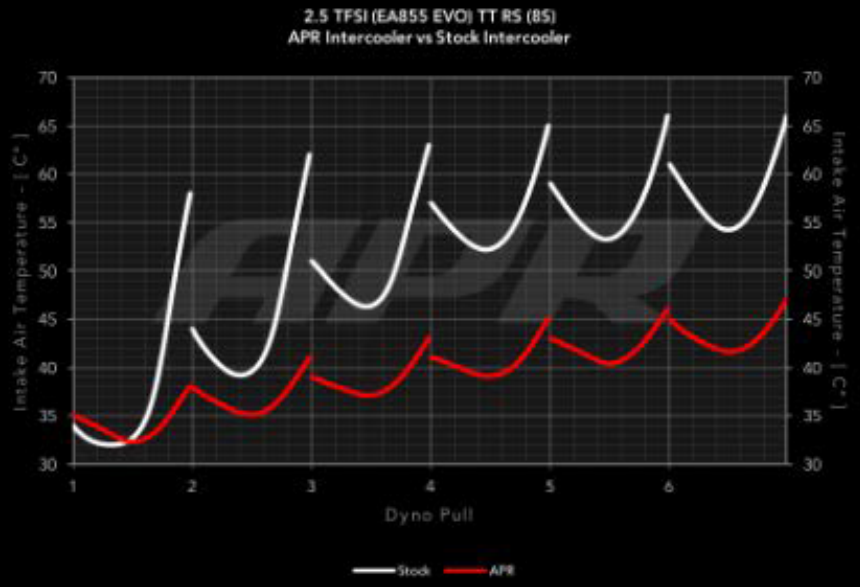

2.5 TFSI (EA855 EVO - TT RS (8S) - 93 (R+M)/2 - APR Stage 1 ECU
Stock Intercooler vs APR Intercooler - 6 Back-to-Back Dyno Pulls
Horsepower - [HP]
525
500
475
450
425
400
375
350
325
300
3500
4000
4500
5000
5500
6000
6500
7000
Engine Speed - [REV/MIN]
Stock HP
APR HP

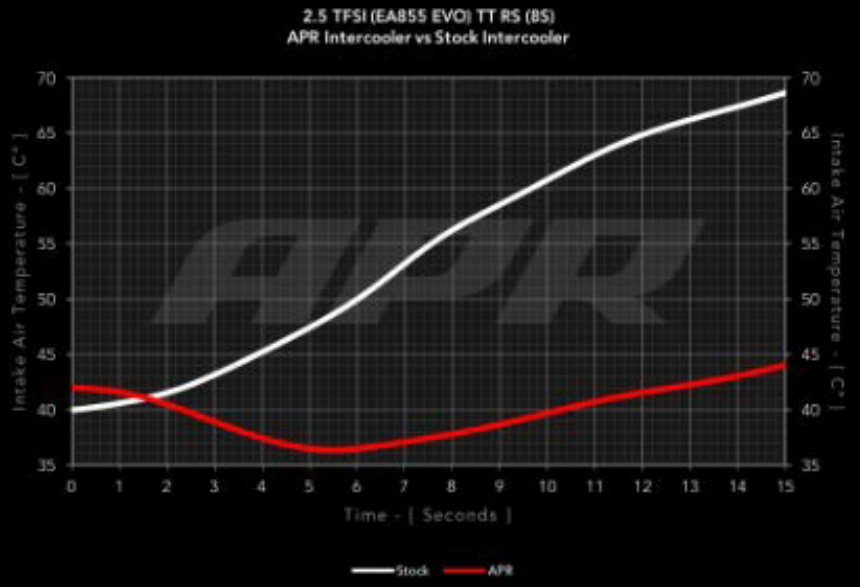

2.5 TFSI (EA855 EVO - TT RS (8S) - 93 (R+M)/2 - APR Stage 1 ECU
Stock Intercooler vs APR Intercooler - 6 Back-to-Back Dyno Pulls
All Wheel Horsepower - [AWHP]
450
425
400
375
350
325
300
275
3500
4000
4500
5000
5500
6000
6500
7000
Engine Speed - [REV/MIN]
Stock AWHP
APR AWHP


2.5 TFSI (EA855 EVO - TT RS (8S) - 93 (R+M)/2 - APR Stage 1 ECU
Stock Intercooler vs APR Intercooler - 6 Back-to-Back Dyno Pulls
All Wheel Horsepower - [AWHP]
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
3500
4000
4500
5000
5500
6000
6500
7000
Engine Speed - [REV/MIN]
APR AWHP Gain (Worst vs Worst)
APR AWHP Gain (Average vs Average)
APR AWHP Gain (Best vs Best)

Testing

APR's engineers tested each intercooler in a multitude of tests to show the impact the APR intercooler has on intake air temperature. The following tests were conducted with a 2018 TT RS using our APR Stage 1 ECU Upgrade, 93 octane fuel and no other modifications. Ambient conditions during the stock intercooler tests were 72°F and 97.9 kPa with 80% relative humidity. Conditions were similar later in the day during during the APR Intercooler testing with 74°F and 98.18 KPa with 78% relative humidity. This gave the APR Intercooler no added advantage over the stock system during the tests.





First, six back-to-back dyno pulls were conducted with each intercooler. Each run was conducted in 4th gear, from idle to redline, with a cool down between runs. The stock intercooler failed to combat rising IAT's and quickly exhibited power-robbing heat soak. IAT's started at 34°C and quickly rose to 58°C by the end of the first dyno pull. This trend continued with the final dyno pull reaching a staggering 66°C! In contrast, the APR Intercooler started at the same temperature and only reached 38°C by the end of the first dyno pull. It was then able to continue rejecting heat, only reaching 47°C by the end of the final dyno pull. The APR Intercooler performed better after 6 back-to-back dyno pulls than the factory intercooler did on it's very first dyno pull.

Next we tested a 15-second sprint through the gears. With the factory intercooler, IAT quickly rose from a starting temperature of 40°C to a blistering 69°C! However, as expected, the APR intercooler handled IAT's extremely well. With a starting temperature of 42°C, IAT dropped to as low as 36°C before slightly climbing above the starting temperature to 48°C by the end of the sprint. A difference of 25°C was exhibited between the two units after only a single 15 second sprint. This directly translates to faster acceleration, and better performance in all conditions.

The temperature difference between the stock and APR intercooler directly translates to more horsepower. Comparing best vs best, worst vs worse, and average vs average dynos from both systems, the APR Intercooler laid down 26 AWHP over stock when comparing the average results of each intercooler. **This is easily one of the best dollar-per-horsepower hardware modifications one can make on this platform and highly recommended for anyone at any stage!**