

# AEROTECH KBA I550R

## CERTIFIED VALUES

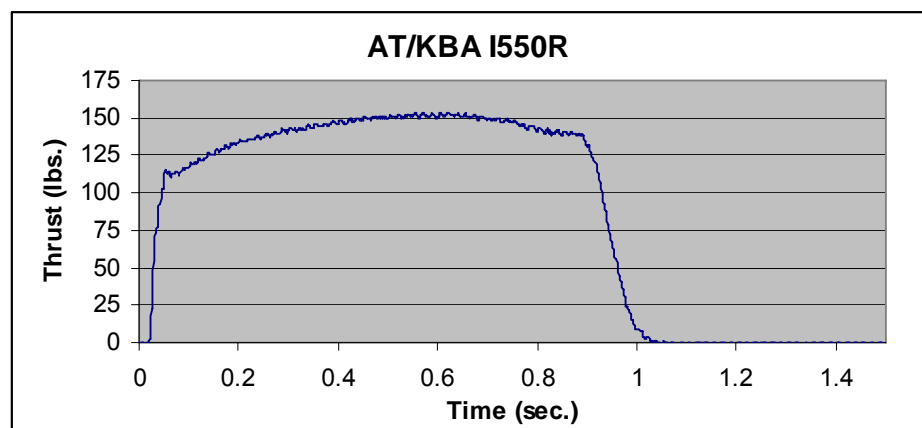
**Total Impulse:** 575 Newton-seconds  
**Delays:** 20  
**Propellant Type:** Redline  
**Propellant Mass:** 295  
**Casing Dimensions:** 38mm × 370mm  
**Certification Date:** July 11, 2007  
**Certification Type:** High Power Rocket Motor

## STATIC TEST DATA

**Date Tested:** June 16, 2007  
**Total Impulse:** 575 Newton-seconds ( $\sigma$  .14)  
**Peak Thrust:** 689 Newtons ( $\sigma$  15)  
**Burn Time:** 0.98 seconds ( $\sigma$  0.01)  
**Average Thrust:** 587 Newtons ( $\sigma$  7.7)  
**Mass After Firing:** 403 grams

<b>Delay Time(sec.)</b>	<b>20</b>		
<b>Average Measured Delay(sec.)</b>	20.9		
<b>Initial Mass (gm.)</b>	711.6		

## TYPICAL THRUST-TIME CURVE



## REMARKS

Certified for use in AMW 38-640 hardware only.  
No substitutions allowed



Data File		Total	Max	Average	Burn	Delay	Initial	Fired
#	Engine	Impulse	Thrust	Thrust	Time	Time	Weight	Weight
070616W03	I550R-20	575.3	677.5	581.1	0.99	21.57	711.3	401.3
070616W05	I550R-20	575.5	699.4	592.0	0.97	20.24	711.9	404.2
Average		575.4	688.5	586.6	0.98		711.6	402.8
Std Dev		0.141	15.486	7.707	0.014			
Std Dev %		0.0%	2.2%	1.3%	1.4%			
<b>Range</b>	<b>Indicated</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Actual</b>	<b>Average</b>	
17 to 23	20	21.57	20.24				20.91	

; @File: 070616w05.txt, @Pts-I: 573, @Pts-O: 31, @Sm: 5, @CO: 5%  
; @TI: 571.133, @TIA: 570.714, @TIE: 0.0%, @ThMax: 685.894, @ThAvg: 584.748, @Tb: 0.976  
; Exported using ThrustCurveTool, www.ThrustGear.com

I550R 38 370 20 0.295 0.7116 RCS/Aerotech

0.0040 10.04732  
0.0060 25.4934  
0.01 93.376  
0.018 246.087  
0.028 365.158  
0.032 403.241  
0.038 446.67  
0.046 463.95  
0.07 475.946  
0.19 583.865  
0.274 621.187  
0.424 669.879  
0.53 684.874  
0.568 678.609  
0.658 680.575  
0.74 662.234  
0.8 630.732  
0.832 629.127  
0.86 637.791  
0.874 631.954  
0.89 582.662  
0.898 547.171  
0.908 489.757  
0.934 290.466  
0.952 166.1998  
0.966 87.7477  
0.984 29.5776  
1.0 7.75048  
1.01 2.88272  
1.092 0.0