GAGE LINEARITY STUDY

PART Name. :	BOBBIN WITH PIN	Instument Name:	micrometer	Appr :	มานะ	Date :	
PART NO. :	MK126EF447	Serial Number:	25648	CHECKED By.		APPROVED By.	
racteristic/Specification		Resulotion:	0.001				

TRIALS

PART	1	2	3	4	5
REFERENCE VALUE	2.00	4.00	6.00	8.00	10.00
1	2.70	5.10	5.80	7.60	9.10
2	2.50	3.90	5.70	7.70	9.30
3	2.40	4.20	5.90	7.80	9.50
4	2.50	5.00	5.90	7.70	9.30
5	2.70	3.80	6.00	7.80	9.40
6	2.30	3.90	6.10	7.80	9.50
7	2.50	3.90	6.00	7.80	9.50
8	2.50	3.90	6.10	7.70	9.50
9	2.40	3.90	6.40	7.80	9.60
10	2.40	4.00	6.30	7.50	9.20
11	2.60	4.10	6.00	7.60	9.30
12	2.40	3.80	6.10	7.70	9.40
PART Avg.	2.4917	4.1250	6.0250	7.7083	9.3833

BIAS

PART	1	2	3	4	5
REFERENCE VALUE	2.00	4.00	6.00	8.00	10.00
1	0.700	1.100	-0.200	-0.400	-0.900
2	0.500	-0.100	-0.300	-0.300	-0.700
3	0.400	0.200	-0.100	-0.200	-0.500
4	0.500	1.000	-0.100	-0.300	-0.700
5	0.700	-0.200	0.000	-0.200	-0.600
6	0.300	-0.100	0.100	-0.200	-0.500
7	0.500	-0.100	0.000	-0.200	-0.500
8	0.500	-0.100	0.100	-0.300	-0.500
9	0.400	-0.100	0.400	-0.200	-0.400
10	0.400	0.000	0.300	-0.500	-0.800
11	0.600	0.100	0.000	-0.400	-0.700
12	0.400	-0.200	0.100	-0.300	-0.600
BIAS Avg.	0.4917	0.1250	0.0250	-0.2917	-0.6167

Number of part, g : 5 alpha, α = 0.05

Number of trails, m 12 $t_{gm-2,1-\alpha/2}$ = 2.001717484

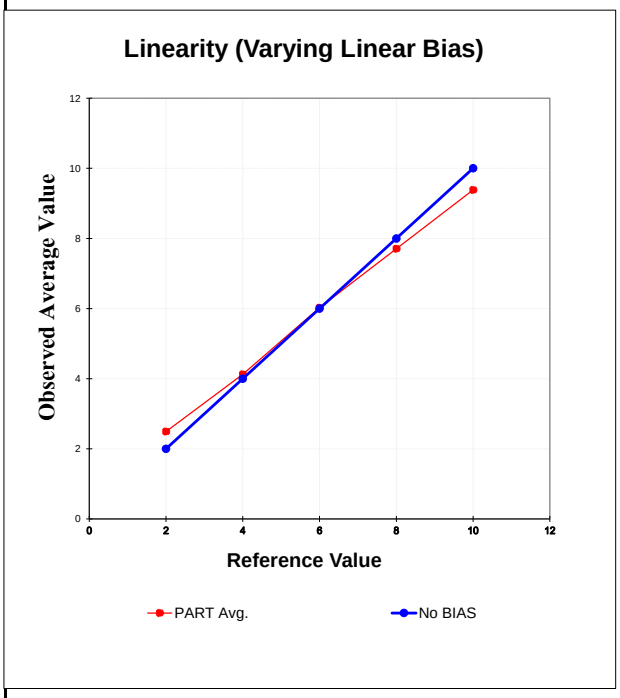
gm = 60

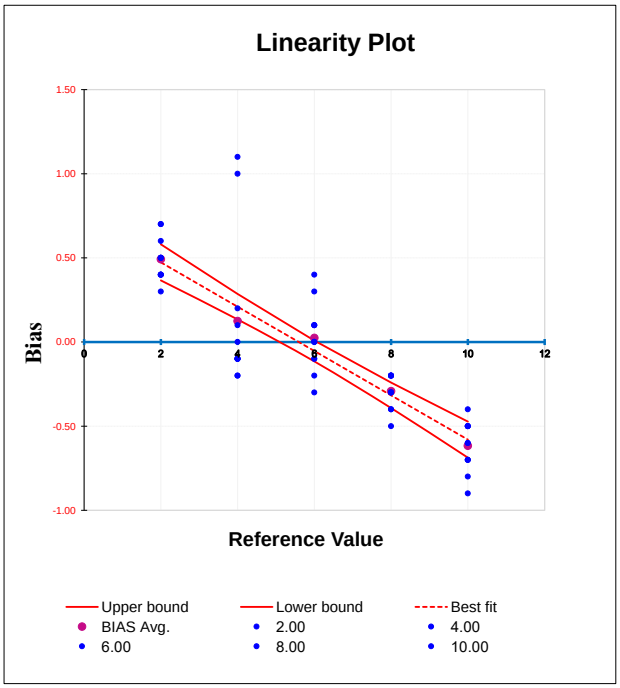
Slope, a = -0.1317 S = 0.23954

Intercept, b = 0.7367

Upper bound	0.5806	0.2858	0.0086	-0.2409	-0.4728
Best fit	0.4733	0.2100	-0.0533	-0.3167	-0.5800
Lower bound	0.3661	0.1342	-0.1152	-0.3925	-0.6872

Graph





Statistic Testing Result

H0: a = 0 H1: a ≠ 0	H0: b = 0 H1: b ≠ 0
t_a = -12.042559	t_b = 10.157519
[X] $t_a \le t_{gm-2,1-\alpha/2}$ Accept H0, Reject H1	[ ] $t_b \le t_{gm-2,1-\alpha/2}$ Accept H0, Reject H1
[ ] $t_a > t_{gm-2,1-\alpha/2}$ Reject H0, Aacept H1	[X] $t_b > t_{gm-2,1-\alpha/2}$ Reject H0, Aacept H1

Final conclusion	
	Acceptable
	Not acceptable

Approve	Report
Date:	Date: