



# Fermilab

TS-SSC 90-074

10/16/90

**To:** John Carson  
**From:** Jim Strait  
**Subject:** DC0303 Collaring Shims

The Kapton collaring shims for DC0303 should be 17 mils in the inner coil and 13 mils in the outer coil. These thicknesses include the adhesive and represent the thickness that would be measured with a flat anvil micrometer. The thickness, with and without adhesive, of each of the layers used to make the shim packages should be measured and recorded in the traveller.

The choice of shim thicknesses is based on the prestress in DS0311 and DC0302[1], which are the two magnets in which the strain gage installation was the most accurate and therefore the data are considered to be the most reliable. The inner and outer prestresses immediately after collaring were 6.1 and 5.1 kpsi in DC0302 and 7.9 and 8.9 kpsi in DS0311. The inner and outer coils in DC0303 are both approximately 1.5 mils smaller than those in DC0302 and approximately 1 and 4.5 mils respectively smaller than those in DS0311. The inner and outer shims specified here for DC0303 are 4 and 3 mils larger than in DC0302 and 4 and 5 mils larger than in DS0311. The sum of the inner and outer coils plus shims in DC0303 are therefore approximately 2.5 and 1.5 mils larger than in DC0302 and approximately 3 and 0.5 mils larger than in DS0311.

Unfortunately, I cannot make quantitative sense of the relative preloads in DS0311 and DC0302. The sum of coil plus shim thickness is about 1 mil larger in the inner coil and 1 mil smaller in the outer coil, but the prestresses are lower in both the inner and outer coils in DC0302 than in DS0311. Depending on whether I use the results from DC0302 or DS0311 to predict the prestress in DC0303, I calculate the inner (outer) coil prestress to be between 9 and 13 (7 and 9) kpsi.

The sum of coil plus shim that I am requesting for DC0303 is comparable to the amount I originally requested for DC0302 (about +1 mil in the inner coil and -1 mil in the outer coil). With my original shims, the press did not close on DC0302, so we may expect the same behavior with these shims for DC0303. I see no alternative to using these thicker shims if we want adequate preload in the magnet. We may be forced to drive the tapered keys rather than placing them into the collars.

#### Reference

- [1] J. Strait, Analysis of DC0302 Collaring Data, TS-SSC 90-071, 10/11/90.

cc: Rodger Bossert  
Steve Delchamps  
Wayne Koska  
Gale Pewitt  
Ried Rihel  
Masayohsi Wake

Magnet	shims	collar error	friction fudge	Tcalc	Tmeas
DS0310	13/10	7/8.5 $\begin{bmatrix} 9/7 \\ 9/6.5 \end{bmatrix}$ $\begin{bmatrix} 7.8/5.2 \\ 7.0/4.3 \end{bmatrix}$	1/1 1.0/1.0 0.75/0.75 0.6/0.6	14.4/10.3 10.1/13.9 9.8/14.7 9.8/14.7 9.6/9.6	9.9/4.2
DS0311	13/8	10.8/8.4 11.7/8.6 10.4/6.8 9.5/5.6	1/1 1.0/1.0 0.75/0.75 0.6/0.6	10.0/8.4 7.9/8.5 7.9/8.5 7.9/8.0	7.9/8.9
DC0302	13/10	15.1/10.6 13.2/9.1 12.2/8.3	1/1 0.75/0.75 0.6/0.6	6.1/5.1 6.2/5.1 6.1/5.1	6.1/5.1
DC0303	15/12 15/12 18/14 18/13 18/13 17/13 17/13	12/9 15.1/10.6 15.1/10.6 15.1/10.6 15.1/10.6 11.7/8.6 15.0/10.6	1/1 1/1 1/1 1/1 1/1 1/1 1/1	10.1/7.1 6.4/6.4 9.8/7.6 10.2/6.4 14.2/7.3 12.7/7.3 8.8/6.8	

Magnid	Shims	cotton error	friction angle	Scale	$\sqrt{meas}$
DC0303	17/13	11.7/8.6 15.1/10.6	1.0/1.0	12.7/3.8 8.8/6.8	
		10.4/6.8 13.2/9.1	0.75/0.35	13.3/8.8 9.8/7.1	
		9.5/5.6 12.2/8.3	0.6/0.6	13.8/9.8 10.5/7.1	

	in ⑨		out ⑦		in ⑬		out ⑧	
	5.9	5.0	4.1	4.6				
DCO302								
DCO303	4.3	3.8	2.3	3.2				
$\Delta_{coil}$	-1.6	-1.2	-1.8	-1.4				
$\Delta_{shim}$	+4(3)	+3(0)	+4(3)	+3(0)				
$\Delta_{coil} + \Delta_{shim}$	+2.4(1.4)	+1.8(-1.2)	+2.2(1.2)	+1.6(-1.4)				

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	in ⑨		out ⑦		in ⑬		out ⑧	
	5.0	8.4	3.6	7.8				
DSO311								
DCO303	4.3	3.8	2.3	3.2				
$\Delta_{coil}$	-0.7	-4.6	-1.3	-4.6				
$\Delta_{shim}$	+4	+5	+4	+5				
$\Delta_{coil} + \Delta_{shim}$	+3.3	+0.4	+2.7	+0.4				

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DSO311	5.0	8.4	3.6	7.8
DCO302	5.9	5.0	4.1	4.6
$\Delta_{coil}$	+0.9	-3.4	+0.5	-3.2
$\Delta_{shim}$	0	+2	0	+2
$\Delta_{coil} + \Delta_{shim}$	+0.9	-1.4	+0.5	-1.2

Position	Quadrants				I - 4 - 0
	I - 1 - 0	I - 2 - 0	I - 3 - 0	I - 4 - 0	
1	.018	.014	.018	.015	.018 .015
2	.018	.015	.018	.015	.018 .014
3	.018	.015	.018	.015	.018 .015
4	.018	.015	.018	.015	.018 .015
5	.018	.015	.018	.015	.018 .015
6	.018	.015	.018	.014	.018 .014
7	.018	.014	.018	.015	.018 .015
8	.018	.015	.018	.015	.018 .015

\* INNER POLE Shimming .005 + ADH = .0065  
~~.005 + ADH = .0065~~

Total pole Shim + ADH = .013

.005 thick Z strip = .005

Total thickness = .018

\* Outer Pole Shimming .005 + ADH = .0065

.002 + ADH = .0035

Total pole shim + ADH = .010

.005 thick CRP <sup>long</sup> ~~short~~ = .005

Total thickness = .015

Jim.

Pole Shimminig as used  
on DC0302. measured with a  
1" mic, then after keying failed

Bob Jensen  
X 3173

----- Magnet Number DC0303 -----

Collar Parameters:  
Undef . Cavity oversize (nom.) = 2.00 mils  
 $d(\text{cavity\_in})/d(\text{stress\_in})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_out})/d(\text{stress\_out})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_out})/d(\text{stress\_in})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_out})/d(\text{stress\_out})$  = 0.28 mils/kpsi  
Collar cavity error (inner) = 15.10 mils  
Collar cavity error (outer) = 10.60 mils  
Friction fudge factor (inner) = 1.00  
Friction fudge factor (outer) = 1.00

Average Coil Parameters:  
Undef . Inner Coil Oversize = 8.91 mils  
Undef . Outer Coil Oversize = 8.23 mils  
 $d(\text{coil\_in})/(d\text{stress}_{\text{in}})$  = -0.51 mils/kpsi  
 $d(\text{coil\_out})/(d\text{stress}_{\text{out}})$  = -0.63 mils/kpsi

shim (mils)	inner	outer	inner	outer
13.0	12.0	3.5	7.3	
14.0	12.0	4.9	6.9	
15.0	12.0	6.4	6.4	
14.0	11.0	5.4	5.6	
14.0	13.0	4.5	8.1	
11.0	11.0	1.1	7.0	
15.0	13.0	5.9	7.7	
17.0	13.0	8.8	6.8	

----- Magnet Number DC0303 -----

Collar Parameters:

Underl. Cavity Oversize (nom.) = 2.00 mils  
d(cavity\_in)/d(stress\_in) = 0.28 mils/kps  
d(cavity\_in)/d(stress\_out) = 0.28 mils/kps  
d(cavity\_out)/d(stress\_in) = 0.28 mils/kps  
d(cavity\_out)/d(stress\_out) = 0.28 mils/kps  
Collar cavity error (inner) = 11.70 mils  
Collar cavity error (outer) = 8.60 mils  
Friction fudge factor (inner) = 1.00  
Friction fudge factor (outer) = 1.00

Average Coil Parameters:

Underl. Inner Coil Oversize = 8.91 mils  
Underl. Outer Coil Oversize = 8.23 mils  
d(coil\_in)/(stress\_in) = -0.51 mils/kps  
d(coil\_out)/(stress\_out) = -0.63 mils/kps

shim (mils)	prestress (kpsi)	inner	outer
13.0	12.0	7.5	8.3
14.0	12.0	8.9	7.9
15.0	12.0	10.3	7.4
14.0	11.0	9.3	6.6
14.0	13.0	8.5	9.1
11.0	11.0	5.1	7.9
15.0	13.0	9.9	8.7
17.0	13.0	12.7	7.8

----- Magnet Number DC0303 -----

Coil Parameters:

Undef.	Cavity	Oversize (nom.)	=	2.00 mils
d(cavity_in)/d(stress_in)	=	0.28 mils/kpsi		
d(cavity_in)/d(stress_out)	=	0.28 mils/kpsi		
d(cavity_out)/d(stress_in)	=	0.28 mils/kpsi		
d(cavity_out)/d(stress_out)	=	0.28 mils/kpsi		
Collar cavity "error" (inner)	=	10.40 mils		
Collar cavity "error" (outer)	=	6.80 mils		
Friction fudge factor (inner)	=	0.75		
Friction fudge factor (outer)	=	0.75		

Average Coil Parameters:

Undef.	Inner Coil	Oversize	=	8.91 mils
Undef.	Outer Coil	Oversize	=	8.23 mils
d(coil_in)/(dstress_in)	=	-0.51 mils/kpsi		
d(coil_out)/(dstress_out)	=	-0.63 mils/kpsi		
shim (mils)		prestress	(kpsi)	
inner	outer	inner	outer	
13.0	12.0	6.8	9.9	
14.0	12.0	8.6	9.3	
15.0	12.0	10.4	8.6	
14.0	11.0	9.3	7.7	
14.0	13.0	7.9	10.9	
11.0	11.0	3.9	9.7	
15.0	13.0	9.7	10.2	
17.0	13.0	13.3	8.8	

----- Magnet Number DC0303 -----

Collar Parameters:

Underfl. Cavity_Oversize (nom.)	=	2.00 mils
d(cavity_in)/d(stress_in)	=	0.28 mils/kps
d(cavity_out)/d(stress_out)	=	0.28 mils/kps
d(cavity_in)/d(stress_in)	=	0.28 mils/kps
d(cavity_out)/d(stress_out)	=	0.28 mils/kps
Collar cavity "error" (inner)	=	13.20 mils
Collar cavity "error" (outer)	=	9.10 mils
Friction fudge factor (inner)	=	0.75
Friction fudge factor (outer)	=	0.76

Average Coil Parameters:

Underfl. Inner Coil Ovsize	=	8.91 mils
Underfl. Outer Coil Ovsize	=	8.23 mils
d(coil_in)/(dstress_in)	=	-0.51 mils/kps
d(coil_out)/(dstress_out)	=	-0.63 mils/kps
shim (mils)	prestress (kps)	
inner	outer	inner outer
13.0	12.0	3.3 8.2
14.0	12.0	5.1 7.5
15.0	12.0	6.9 6.8
14.0	11.0	5.8 5.9
14.0	13.0	4.4 9.1
11.0	11.0	0.4 7.9
15.0	13.0	6.2 8.4
17.0	13.0	9.8 7.1

----- Magnet Number DC0303 -----

Collar Parameters:  
Undef . Cavity oversize (nom.) = 2.00 mils  
 $d(\text{cavity\_in})/d(\text{stress\_in})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_in})/d(\text{stress\_out})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_out})/d(\text{stress\_in})$  = 0.28 mils/kpsi  
 $d(\text{cavity\_out})/d(\text{stress\_out})$  = 0.28 mils/kpsi  
Collar cavity "error" (inner) = 9.50 mils  
Collar cavity "error" (outer) = 5.60 mils  
Friction fudge factor (inner) = 0.60  
Friction fudge factor (outer) = 0.60

Average Coil Parameters:  
Undef . Inner Coil Oversize = 8.91 mils  
Undef . Outer Coil Oversize = 8.23 mils  
 $d(\text{coil\_in})/(d\text{stress\_in})$  = -0.51 mils/kpsi  
 $d(\text{coil\_out})/(d\text{stress\_out})$  = -0.63 mils/kpsi

shim (mils)	inner	outer	inner	outer
13.0	12.0	6.2	11.6	
14.0	12.0	8.3	10.7	
15.0	12.0	10.5	9.8	
14.0	11.0	9.2	8.8	
14.0	13.0	7.4	12.6	
11.0	11.0	2.8	11.5	
15.0	13.0	9.5	11.7	
17.0	13.0	13.8	9.8	

Collar Parameters:  
Undefl. Cavity oversize (nom.) = 2.00 mils  
 $d(\text{cavity\_in})/d(\text{stress\_in}) = 0.28 \text{ mils/kpsi}$   
 $d(\text{cavity\_in})/d(\text{stress\_out}) = 0.28 \text{ mils/kpsi}$   
 $d(\text{cavity\_out})/d(\text{stress\_in}) = 0.28 \text{ mils/kpsi}$   
 $d(\text{cavity\_out})/d(\text{stress\_out}) = 0.28 \text{ mils/kpsi}$   
Collar cavity error (inner) = 12.20 mils  
Collar cavity error (outer) = 8.30 mils  
Friction fudge factor (inner) = 0.60  
Friction fudge factor (outer) = 0.60

Average Coil Parameters:

Undefl. Inner Coil Oversize	8.91 mils
Undefl. Outer Coil Oversize	= 8.23 mils
$d(\text{coil\_in})/(d\text{stress\_in})$	= -0.51 mils/kpsi
$d(\text{coil\_out})/(d\text{stress\_out})$	= -0.63 mils/kpsi

shim (mils)      prestress (kpsi)

inner	outer	inner	outer
13.0	12.0	2.8	8.9
14.0	12.0	5.0	8.0
15.0	12.0	7.1	7.1
14.0	11.0	5.9	6.1
14.0	13.0	4.1	9.9
11.0	11.0	-0.6	8.8
15.0	13.0	6.2	9.0
17.0	13.0	10.5	7.1

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----- Magnet Number DC0303 -----
Data file: ts_ssc_prj$root:[ts_ssc_prj.data;coil_size]ssc_inner_17m1010.dat
Coil # 17M-1010 Coil type: INNER Coil location: Lower Inner
COIL # 17M-1010 COIL TYPE: INNER DATE: MEAS. BY:

coil stress (kpsi)   8.0    8.0    10.0   12.0
----- ----- ----- ----- -----
average size (mils) 0.0054  0.0046  0.0035  0.0025
sigma           0.0014  0.0008  0.0008  0.0011
minimum         0.0005  0.0029  0.0020  -0.0005
maximum         0.0074  0.0062  0.0051  0.0124
range           0.0089  0.0033  0.0031  0.0129
#points          20      20      20      441

Fit avg = avg_θ + (dI/dsig) * stress
avg_θ = 8.4 dI/dsig = -0.48

----- Magnet Number DC0303 -----
Data file: ts_ssc_prj$root:[ts_ssc_prj.data;coil_size]ssc_inner_17m1012.dat
Coil # 17M-1012 Coil type: INNER Coil location: Upper Inner
COIL # 17M-1012 COIL TYPE: INNER DATE: 8/7/98 MEAS. BY: SANDERS

coil stress (kpsi)   8.0    8.0    10.0   12.0
----- ----- ----- ----- -----
average size (mils) 0.0063  0.0052  0.0040  0.0032
sigma           0.0010  0.0009  0.0009  0.0010
minimum         0.0047  0.0038  0.0028  0.0001
maximum         0.0084  0.0071  0.0061  0.0124
range           0.0037  0.0035  0.0033  0.0123
#points          20      20      20      444

Fit avg = avg_θ + (dI/dsig) * stress
avg_θ = 9.4 dI/dsig = -0.53

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----- Magnet Number DC0303 -----
Data file: ts_ssc_prj$root:[ts_ssc_prj.data;coil_size]ssc_outer_17m2012.dat
Coil # 17M-2012 Coil type: OUTER   Coil location: Lower Outer
COIL # 17M-2012 COIL TYPE:          OUTER DATE: 8/30/90 MEAS. BY: PHILLIPS

coil stress (kpsi)  6.0    8.0    10.0   12.0
----- -----
average size (mils) 0.00042 0.00027 0.00014 0.00004
sigma           0.00009 0.00010 0.00010 0.00009
minimum         0.00025 0.00008 -0.0002 -0.0047
maximum         0.00059 0.00044 0.00032 0.00034
range           0.00034 0.00036 0.00034 0.00081
#points        20      20      20      444

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Fit avg = avg\_θ + (dI/dsig) \* stress  
 $\text{avg}_\theta = 7.9 \frac{dI}{dsig} + 0.64$

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----- Magnet Number DC0303 -----
Data file: ts_ssc_prj$root:[ts_ssc_prj.data;coil_size]ssc_outer_17m2011.dat
Coil # 17M-2011 Coil type: OUTER   Coil location: Upper Outer
COIL # 17M-2011 COIL TYPE:          OUTER DATE: 8/17/90 MEAS. BY: SANDERS

coil stress (kpsi)  6.0    8.0    10.0   12.0
----- -----
average size (mils) 0.00048 0.00037 0.00023 0.00012
sigma           0.00009 0.00012 0.00008 0.00008
minimum         0.00035 0.00021 0.00009 -0.0017
maximum         0.00064 0.00075 0.00038 0.00030
range           0.00029 0.00054 0.00029 0.00047
#points        20      20      20      443

```

Fit avg = avg\_θ + (dI/dsig) \* stress  
 $\text{avg}_\theta = 8.5 \frac{dI}{dsig} + 0.61$



96		0.9994 0.9956	0.0028
97		1.0003 0.9966	0.0087
98		1.0002 0.9966	0.0036
99		0.9996 0.9966	0.0030
100 UP	1.0074 1.0000 1.0050 0.9989 1.0028 0.9978	1.0007 0.9966	0.0074 0.0061 0.0050 0.0041
100 DN	1.0042 0.9996 1.0028 0.9985 1.0016 0.9975	1.0007 0.9966	0.0046 0.0043 0.0041 0.0041
101		1.0006 0.9966	0.0040
102		1.0009 0.9966	0.0043
103		1.0002 0.9966	0.0036
104		0.9993 0.9966	0.0027
105		0.9989 0.9966	0.0023
106		0.9983 0.9966	0.0017
107		0.9979 0.9966	0.0013
108		0.9983 0.9966	0.0017
109		0.9988 0.9966	0.0020
110		0.9992 0.9966	0.0026
111		1.0003 0.9966	0.0037
112		1.0009 0.9966	0.0043
113		0.9994 0.9966	0.0028
114		0.9996 0.9966	0.0030
115		0.9996 0.9966	0.0030
116		0.9990 0.9966	0.0024
117		0.9990 0.9966	0.0024
118		0.9989 0.9966	0.0023
119		0.9989 0.9966	0.0023
120 UP	1.0052 1.0000 1.0036 0.9990 1.0013 0.9978	0.9992 0.9966	0.0052 0.0046 0.0035 0.0026
120 DN	1.0029 0.9995 1.0014 0.9985 1.0002 0.9975	0.9992 0.9966	0.0084 0.0029 0.0027 0.0026
121		0.9976 0.9966	0.0010
122		0.9974 0.9966	0.0008
123		0.9986 0.9966	0.0020
124		0.9993 0.9966	0.0027
125		0.9992 0.9966	0.0026
126		0.9995 0.9966	0.0029
127		0.9998 0.9966	0.0032
128		0.9999 0.9966	0.0033
129		0.9981 0.9966	0.0015
130		0.9986 0.9966	0.0020
131		0.9990 0.9966	0.0024
132		0.9993 0.9966	0.0027
133		0.9995 0.9966	0.0029
134		1.0002 0.9966	0.0036
135		1.0012 0.9966	0.0045
136		1.0012 0.9966	0.0046
137		1.0012 0.9966	0.0046
138		1.0003 0.9966	0.0037
139		0.9993 0.9966	0.0027
140 UP	1.0057 1.0000 1.0037 0.9988 1.0013 0.9978	0.9993 0.9966	0.0057 0.0049 0.0035 0.0027
140 DN	1.0028 0.9995 1.0014 0.9984 1.0002 0.9975	0.9993 0.9966	0.0033 0.0030 0.0027 0.0027
141		0.9995 0.9966	0.0029
142		0.9990 0.9966	0.0024
143		1.0001 0.9966	0.0035
144		0.9998 0.9966	0.0032
145		1.0070 0.9966	0.0104
146		1.0003 0.9966	0.0037
147		1.0006 0.9966	0.0040
148		0.9993 0.9966	0.0027
149		1.0006 0.9966	0.0040
150		1.0002 0.9966	0.0036
151		0.9995 0.9966	0.0030
152		0.9980 0.9966	0.0014
153		0.9985 0.9966	0.0019
154		0.9975 0.9966	0.0010
155		0.9999 0.9966	0.0038
156		1.0001 0.9966	0.0035
157		0.9996 0.9966	0.0030
158		0.9975 0.9966	0.0009
159		0.9978 0.9966	0.0012
160 UP	1.0050 1.0000 1.0029 0.9990 1.0007 0.9978	0.9986 0.9966	0.0050 0.0039 0.0029 0.0000
160 DN	1.0020 0.9995 1.0060 0.9985 0.9996 0.9975	0.9986 0.9966	0.0025 0.0075 0.0021 0.0019
161		0.9984 0.9966	0.0018
162		0.9974 0.9966	0.0008
163		0.9992 0.9966	0.0026
164		0.9991 0.9966	0.0025
165		0.9991 0.9966	0.0025
166		0.9997 0.9966	0.0031
167		1.0008 0.9966	0.0042
168		1.0002 0.9966	0.0036
169		1.0011 0.9966	0.0045
170		1.0012 0.9966	0.0046
171		0.9995 0.9966	0.0030
172		0.9993 0.9966	0.0027
173		0.9992 0.9966	0.0026
174		0.9995 0.9966	0.0029
175		0.9980 0.9966	0.0014
176		0.9975 0.9966	0.0010
177		0.9977 0.9966	0.0011
178		0.9983 0.9966	0.0017
179		0.9996 0.9966	0.0030
180 UP	1.0056 1.0000 1.0037 0.9991 1.0016 0.9979	0.9994 0.9966	0.0056 0.0046 0.0037 0.0028
180 DN	1.0030 0.9996 1.0016 0.9985 1.0004 0.9975	0.9994 0.9966	0.0084 0.0031 0.0029 0.0028
181		0.9985 0.9966	0.0019
182		0.9988 0.9966	0.0017
183		0.9985 0.9966	0.0019
184		1.0000 0.9966	0.0034
185		0.9992 0.9966	0.0026
186		0.9984 0.9966	0.0019
187		0.9989 0.9966	0.0023
188		0.9981 0.9966	0.0015
189		0.9993 0.9966	0.0027
190		0.9986 0.9966	0.0020
191		0.9992 0.9966	0.0026
192		0.9999 0.9966	0.0033
193		0.9996 0.9966	0.0030
194		0.9998 0.9966	0.0030
195		1.0005 0.9966	0.0039
196		1.0090 0.9966	0.0124
197		1.0001 0.9966	0.0035
198		0.9996 0.9966	0.0030
199		0.9989 0.9966	0.0023
200 UP	1.0040 1.0000 1.0019 0.9990 0.9999 0.9979	0.9977 0.9966	0.0040 0.0029 0.0020 0.0011
200 DN	1.0012 0.9995 0.9999 0.9986 0.9988 0.9976	0.9977 0.9966	0.0017 0.0013 0.0012 0.0011
201		0.9982 0.9966	0.0016
202		0.9992 0.9966	0.0026
203		0.9979 0.9966	0.0013
204		0.9996 0.9966	0.0030
205		0.9997 0.9966	0.0031
206		0.9993 0.9966	0.0027
207		0.9984 0.9966	0.0019
208		0.9996 0.9966	0.0030
209		0.9990 0.9966	0.0024

210		0.9994 0.9966	0.0028
211		0.9998 0.9966	0.0032
212		0.9997 0.9966	0.0031
213		0.9993 0.9966	0.0027
214		0.9995 0.9966	0.0029
215			
216		0.9994 0.9966	0.0028
217		0.9998 0.9966	0.0032
218		0.9988 0.9966	0.0022
219		0.9989 0.9966	0.0023
220		0.9988 0.9966	0.0022
221		0.9988 0.9966	0.0022
222		0.9982 0.9966	0.0016
223		0.9986 0.9966	0.0020
224		0.9987 0.9966	0.0021
225		0.9988 0.9966	0.0020
226		0.9999 0.9966	0.0032
227		0.9995 0.9966	0.0029
228		0.9994 0.9966	0.0028
229		1.0000 0.9966	0.0034
230		0.9988 0.9966	0.0022
231 UP	1.0050 1.0000 1.0028 0.9991 1.0007 0.9979 0.9986 0.9966	0.0050 0.0037 0.0028 0.0020	
231 DN	1.0021 0.9994 1.0007 0.9984 0.9996 0.9976 0.9988 0.9966	0.0027 0.0028 0.0020 0.0020	
232		0.9998 0.9966	0.0032
233		0.9997 0.9966	0.0031
234		0.9986 0.9966	0.0020
235		0.9994 0.9966	0.0028
236		0.9994 0.9966	0.0028
237		0.9996 0.9966	0.0030
238		0.9988 0.9966	0.0022
239		0.9989 0.9966	0.0023
240		0.9994 0.9966	0.0028
241		1.0001 0.9966	0.0035
242		1.0004 0.9966	0.0038
243		1.0002 0.9966	0.0036
244		0.9997 0.9966	0.0031
245		0.9993 0.9966	0.0027
246		0.9989 0.9966	0.0028
247		0.9980 0.9966	0.0014
248		0.9983 0.9966	0.0017
249		0.9980 0.9966	0.0014
250		0.9979 0.9966	0.0013
251 UP	1.0059 1.0000 1.0032 0.9990 1.0010 0.9978 0.9988 0.9966	0.0059 0.0042 0.0032 0.0022	
251 DN	1.0022 0.9993 1.0008 0.9983 0.9998 0.9976 0.9988 0.9966	0.0029 0.0025 0.0022 0.0022	
252		0.9993 0.9966	0.0027
253		0.9996 0.9966	0.0030
254		0.9995 0.9966	0.0029
255		0.9998 0.9966	0.0032
256		0.9999 0.9966	0.0033
257		0.9998 0.9966	0.0032
258		0.9984 0.9966	0.0018
259		0.9983 0.9966	0.0017
260		0.9993 0.9966	0.0027
261		0.9985 0.9966	0.0019
262		0.9988 0.9966	0.0022
263		0.9996 0.9966	0.0030
264		1.0000 0.9966	0.0034
265		0.9993 0.9966	0.0027
266		0.9984 0.9966	0.0019
267		0.9983 0.9966	0.0017
268		0.9988 0.9966	0.0017
269		0.9969 0.9966	0.0003
270		0.9982 0.9966	0.0016
271 UP	1.0052 1.0000 1.0031 0.9990 1.0011 0.9979 0.9987 0.9966	0.0052 0.0041 0.0032 0.0021	
271 DN	1.0022 0.9998 1.0008 0.9983 0.9992 0.9975 0.9987 0.9966	0.0029 0.0025 0.0017 0.0021	
272		0.9980 0.9966	0.0014
273		0.9980 0.9966	0.0014
274		0.9998 0.9966	0.0032
275		1.0002 0.9966	0.0036
276		1.0004 0.9966	0.0038
277		0.9999 0.9966	0.0033
278		0.9993 0.9966	0.0027
279		0.9994 0.9966	0.0028
280		0.9994 0.9966	0.0028
281		0.9997 0.9966	0.0031
282		0.9977 0.9966	0.0011
283		0.9988 0.9966	0.0022
284		0.9988 0.9966	0.0022
285		0.9982 0.9966	0.0016
286		0.9966 0.9966	0.0000
287		0.9978 0.9966	0.0012
288			
289		0.9978 0.9966	0.0012
290		0.9981 0.9966	0.0015
291 UP	1.0051 1.0000 1.0030 0.9990 1.0008 0.9978 0.9987 0.9966	0.0051 0.0040 0.0030 0.0021	
291 DN	1.0024 0.9993 1.0011 0.9983 1.0002 0.9975 0.9987 0.9966	0.0031 0.0028 0.0027 0.0021	
292		0.9978 0.9966	0.0012
293		0.9971 0.9966	0.0005
294		0.9980 0.9966	0.0014
295		0.9983 0.9966	0.0017
296		0.9993 0.9966	0.0027
297		0.9998 0.9966	0.0032
298		0.9989 0.9966	0.0028
299		0.9987 0.9966	0.0021
300		0.9988 0.9966	0.0022
301		0.9988 0.9966	0.0022
302		0.9984 0.9966	0.0018
303		0.9996 0.9966	0.0030
304		1.0005 0.9966	0.0039
305		1.0000 0.9966	0.0034
306		1.0005 0.9966	0.0039
307		1.0002 0.9966	0.0036
308		1.0002 0.9966	0.0036
309		0.9990 0.9966	0.0024
310		0.9988 0.9966	0.0022
311 UP	1.0061 1.0000 1.0041 0.9990 1.0017 0.9978 0.9996 0.9966	0.0061 0.0051 0.0039 0.0030	
311 DN	1.0033 0.9993 1.0018 0.9983 1.0006 0.9974 0.9996 0.9966	0.0040 0.0035 0.0032 0.0030	
312		0.9990 0.9966	0.0024
313		0.9986 0.9966	0.0020
314		0.9978 0.9966	0.0010
315		0.9978 0.9966	0.0012
316		0.9979 0.9966	0.0018
317		0.9978 0.9966	0.0012
318		0.9977 0.9966	0.0011
319		0.9986 0.9966	0.0020
320		0.9978 0.9966	0.0012
321		0.9969 0.9966	0.0008
322		0.9961 0.9966	-0.0005
323		0.9965 0.9966	-0.0001
324		0.9973 0.9966	0.0007

325		0.9978 0.9966	0.0012
326		0.9976 0.9966	0.0010
327		0.9980 0.9966	0.0014
328		0.9976 0.9966	0.0010
329		0.9986 0.9966	0.0020
330		0.9987 0.9966	0.0021
331 UP	1.0048 1.0000 1.0029 0.9990 1.0007 0.9987	0.9987 0.9966	0.0048 0.0039 0.0020 0.0021
331 DN	1.0020 0.9992 1.0006 0.9983 0.9996 0.9974	0.9987 0.9966	0.0028 0.0023 0.0022 0.0021
332		0.9990 0.9966	0.0024
333		1.0002 0.9966	0.0036
334		0.9997 0.9966	0.0031
335		0.9997 0.9966	0.0031
336		0.9992 0.9966	0.0026
337		0.9998 0.9966	0.0032
338		1.0009 0.9966	0.0043
339		1.0001 0.9966	0.0035
340		1.0002 0.9966	0.0036
341		0.9994 0.9966	0.0028
342		1.0001 0.9966	0.0035
343		0.9999 0.9966	0.0033
344		0.9992 0.9966	0.0026
345		0.9982 0.9966	0.0016
346		0.9985 0.9966	0.0019
347		1.0000 0.9966	0.0034
348		0.9996 0.9966	0.0030
349		0.9991 0.9966	0.0025
350		0.9991 0.9966	0.0025
351 UP	1.0059 1.0000 1.0038 0.9990 1.0017 0.9978	0.9996 0.9966	0.0059 0.0048 0.0039 0.0030
351 DN	1.0031 0.9992 1.0017 0.9982 1.0006 0.9975	0.9996 0.9966	0.0039 0.0035 0.0031 0.0030
352		0.9984 0.9966	0.0018
353		0.9992 0.9966	0.0026
354		0.9988 0.9966	0.0022
355		0.9992 0.9966	0.0026
356		0.9981 0.9966	0.0015
357		0.9975 0.9966	0.0009
358		0.9979 0.9966	0.0013
359		0.9984 0.9966	0.0018
360		0.9987 0.9966	0.0021
361		1.0000 0.9966	0.0034
362		1.0001 0.9966	0.0035
363		0.9999 0.9966	0.0033
364		0.9989 0.9966	0.0023
365		0.9986 0.9966	0.0020
366		0.9985 0.9966	0.0019
367		1.0003 0.9966	0.0037
368		1.0012 0.9966	0.0046
369		1.0007 0.9966	0.0041
370		0.9996 0.9966	0.0030
371 UP	1.0063 1.0000 1.0044 0.9990 1.0023 0.9978	1.0000 0.9966	0.0063 0.0054 0.0045 0.0035
371 DN	1.0041 0.9993 1.0029 0.9983 1.0018 0.9975	1.0001 0.9966	0.0048 0.0046 0.0043 0.0035
372		0.9997 0.9966	0.0031
373		0.9994 0.9966	0.0028
374		0.9976 0.9966	0.0010
375		0.9982 0.9966	0.0015
376		0.9984 0.9966	0.0018
377		0.9989 0.9966	0.0023
378		0.9997 0.9966	0.0031
379		1.0006 0.9966	0.0040
380		1.0008 0.9966	0.0042
381		0.9994 0.9966	0.0028
382		0.9988 0.9966	0.0022
383		0.9990 0.9966	0.0024
384		0.9991 0.9966	0.0025
385		0.9989 0.9966	0.0023
386		0.9985 0.9966	0.0019
387		0.9983 0.9966	0.0017
388		0.9994 0.9966	0.0028
389		0.9983 0.9966	0.0017
390		0.9999 0.9966	0.0033
391 UP	1.0060 1.0006 1.0039 0.9990 1.0015 0.9978	0.9995 0.9966	0.0054 0.0049 0.0037 0.0029
391 DN	1.0030 0.9993 1.0016 0.9983 1.0004 0.9975	0.9995 0.9966	0.0037 0.0033 0.0029 0.0029
392		1.0003 0.9966	0.0037
393		0.9996 0.9966	0.0030
394		0.9977 0.9966	0.0011
395		0.9987 0.9966	0.0021
396		0.9994 0.9966	0.0028
397		0.9989 0.9966	0.0023
398		0.9990 0.9966	0.0024
399		0.9988 0.9966	0.0022
400		0.9981 0.9966	0.0015
401		0.9990 0.9966	0.0024
402		0.9972 0.9966	0.0006
403		0.9982 0.9966	0.0016
404		0.9981 0.9966	0.0015
405		0.9995 0.9966	0.0029
406		0.9996 0.9966	0.0030
407		0.9984 0.9966	0.0018
408		0.9982 0.9966	0.0016
409		0.9978 0.9966	0.0012
410		0.9987 0.9966	0.0021
411 UP	1.0069 1.0000 1.0046 0.9990 1.0025 0.9978	1.0027 0.9966	0.0069 0.0056 0.0047 0.0061
411 DN	1.0039 0.9994 1.0024 0.9989 1.0012 0.9975	1.0027 0.9966	0.0045 0.0035 0.0036 0.0061
412		1.0005 0.9966	0.0040
413		1.0004 0.9966	0.0038
414		1.0004 0.9966	0.0038
415		0.9979 0.9966	0.0013
416		0.9980 0.9966	0.0014
417		0.9986 0.9966	0.0020
418		0.9987 0.9966	0.0021
419		0.9992 0.9966	0.0025
420		0.9994 0.9966	0.0028
421		0.9998 0.9966	0.0027
422		1.0001 0.9966	0.0035
423		1.0007 0.9966	0.0041
424		1.0000 0.9966	0.0034
425		0.9988 0.9966	0.0022
426		0.9987 0.9966	0.0021
427		0.9988 0.9966	0.0022
428			
429			
430			



96		0.9998 0.9966	0.0032
97		1.0010 0.9966	0.0044
98		1.0005 0.9966	0.0039
99		1.0007 0.9966	0.0041
100 UP	1.0077 1.0000 1.0053 0.9989 1.0032 0.9979	1.0010 0.9966 0.0077 0.0054 0.0058	0.0044
100 DN	1.0047 0.9994 1.0032 0.9984 1.0021 0.9975	1.0010 0.9966 0.0053 0.0048 0.0046	0.0044
101		1.0012 0.9966	0.0046
102		1.0007 0.9966	0.0041
103		1.0005 0.9966	0.0039
104		0.9991 0.9966	0.0025
105		0.9993 0.9966	0.0027
106		0.9992 0.9966	0.0026
107		0.9987 0.9966	0.0021
108		0.9983 0.9966	0.0017
109		0.9988 0.9966	0.0022
110		0.9993 0.9966	0.0027
111		1.0005 0.9966	0.0039
112		1.0010 0.9966	0.0044
113		1.0009 0.9966	0.0043
114		1.0004 0.9966	0.0038
115		0.9998 0.9966	0.0032
116		0.9996 0.9966	0.0030
117		0.9997 0.9966	0.0031
118		0.9993 0.9966	0.0027
119		0.9998 0.9966	0.0032
120 UP	1.0064 1.0000 1.0044 0.9990 1.0022 0.9979	1.0000 0.9966 0.0054 0.0054 0.0043	0.0034
120 DN	1.0038 0.9994 1.0022 0.9984 1.0010 0.9976	1.0000 0.9966 0.0044 0.0038 0.0034	0.0034
121		0.9998 0.9966	0.0032
122		0.9989 0.9966	0.0023
123		0.9990 0.9966	0.0024
124		1.0005 0.9966	0.0039
125		1.0007 0.9966	0.0041
126		1.0006 0.9966	0.0040
127		1.0010 0.9966	0.0044
128		0.9995 0.9966	0.0029
129		1.0003 0.9966	0.0037
130		0.9997 0.9966	0.0031
131		0.9982 0.9966	0.0016
132		0.9987 0.9966	0.0021
133		1.0001 0.9966	0.0035
134		0.9998 0.9966	0.0032
135		0.9990 0.9966	0.0024
136		0.9996 0.9966	0.0030
137		1.0007 0.9966	0.0041
138		1.0007 0.9966	0.0041
139		0.9984 0.9966	0.0018
140 UP	1.0053 1.0000 1.0031 0.9990 1.0011 0.9979	0.9987 0.9966 0.0053 0.0041 0.0032	0.0021
140 DN	1.0028 0.9994 1.0010 0.9985 0.9998 0.9976	0.9987 0.9966 0.0029 0.0025 0.0022	0.0021
141		0.9993 0.9966	0.0027
142		0.9993 0.9966	0.0027
143		1.0005 0.9966	0.0039
144		1.0008 0.9966	0.0042
145		1.0011 0.9966	0.0045
146		1.0006 0.9966	0.0040
147		1.0007 0.9966	0.0041
148		0.9994 0.9966	0.0028
149		1.0002 0.9966	0.0036
150		1.0005 0.9966	0.0039
151		1.0009 0.9966	0.0043
152		0.9991 0.9966	0.0025
153		0.9989 0.9966	0.0028
154		0.9991 0.9966	0.0025
155		1.0005 0.9966	0.0039
156		1.0005 0.9966	0.0039
157		1.0004 0.9966	0.0038
158		0.9993 0.9966	0.0027
159		0.9987 0.9966	0.0021
160 UP	1.0059 1.0000 1.0038 0.9990 1.0017 0.9979	0.9995 0.9966 0.0059 0.0048 0.0038	0.0029
160 DN	1.0031 0.9994 1.0017 0.9985 1.0006 0.9976	0.9995 0.9966 0.0037 0.0032 0.0030	0.0029
161		0.9995 0.9966	0.0029
162		0.9987 0.9966	0.0021
163		0.9986 0.9966	0.0020
164		0.9996 0.9966	0.0030
165		0.9999 0.9966	0.0033
166		0.9994 0.9966	0.0028
167		1.0005 0.9966	0.0039
168		1.0003 0.9966	0.0037
169		1.0002 0.9966	0.0036
170		1.0004 0.9966	0.0038
171		1.0009 0.9966	0.0043
172		0.9997 0.9966	0.0031
173		1.0009 0.9966	0.0043
174		0.9995 0.9966	0.0029
175		0.9986 0.9966	0.0020
176		0.9988 0.9966	0.0020
177		0.9980 0.9966	0.0014
178		0.9982 0.9966	0.0016
179		0.9984 0.9966	0.0018
180 UP	1.0058 1.0000 1.0038 0.9989 1.0016 0.9978	0.9976 0.9966 0.0058 0.0049 0.0038	0.0010
180 DN	1.0028 0.9994 1.0014 0.9984 1.0030 0.9975	0.9967 0.9966 0.0034 0.0030 0.0055	0.0001
181		0.9991 0.9966	0.0025
182		0.9996 0.9966	0.0030
183		1.0004 0.9966	0.0038
184		1.0001 0.9966	0.0035
185		1.0090 0.9966	0.0124
186		1.0000 0.9966	0.0034
187		1.0012 0.9966	0.0046
188		1.0007 0.9966	0.0041
189		1.0004 0.9966	0.0039
190		1.0000 0.9966	0.0034
191		1.0005 0.9966	0.0039
192		1.0004 0.9966	0.0038
193		1.0007 0.9966	0.0041
194		0.9999 0.9966	0.0033
195		1.0001 0.9966	0.0035
196		1.0009 0.9966	0.0043
197		1.0008 0.9966	0.0042
198		0.9990 0.9966	0.0024
199		0.9998 0.9966	0.0032
200 UP	1.0068 1.0000 1.0042 0.9988 1.0020 0.9978	0.9997 0.9966 0.0063 0.0054 0.0042	0.0031
200 DN	1.0031 0.9994 1.0019 0.9984 1.0008 0.9975	0.9997 0.9966 0.0037 0.0035 0.0038	0.0031
201		0.9990 0.9966	0.0024
202		0.9989 0.9966	0.0023
203		0.9998 0.9966	0.0032
204		0.9986 0.9966	0.0020
205		0.9995 0.9966	0.0029
206		1.0001 0.9966	0.0035
207		0.9993 0.9966	0.0027
208		1.0007 0.9966	0.0041
209		1.0000 0.9966	0.0034

210		0.9986 0.9966	0.0020
211		0.9980 0.9966	0.0014
212		0.9994 0.9966	0.0028
213		0.9990 0.9966	0.0024
214		1.0005 0.9966	0.0039
215			
216			
217		0.9998 0.9966	0.0032
218		1.0007 0.9966	0.0041
219		1.0007 0.9966	0.0041
220		0.9995 0.9966	0.0029
221		0.9992 0.9966	0.0026
222		0.9995 0.9966	0.0029
223		0.9980 0.9966	0.0014
224		0.9981 0.9966	0.0014
225		0.9990 0.9966	0.0024
226		0.9992 0.9966	0.0026
227		1.0003 0.9966	0.0037
228		1.0001 0.9966	0.0035
229		0.9992 0.9966	0.0026
230		1.0000 0.9966	0.0034
231 UP	1.0054 1.0000 1.0032 0.9990 1.0010 0.9979 0.9987 0.9966	0.0054 0.0042 0.0031 0.0021	
231 DN	1.0024 0.9994 1.0011 0.9984 1.0000 0.9976 0.9987 0.9966	0.0080 0.0027 0.0024 0.0021	
232		1.0003 0.9966	0.0037
233		1.0003 0.9966	0.0037
234		0.9990 0.9966	0.0024
235		0.9993 0.9966	0.0027
236		0.9999 0.9966	0.0033
237		0.9994 0.9966	0.0028
238		0.9992 0.9966	0.0026
239		0.9993 0.9966	0.0027
240		0.9993 0.9966	0.0027
241		1.0000 0.9966	0.0034
242		0.9996 0.9966	0.0030
243		0.9994 0.9966	0.0028
244		0.9993 0.9966	0.0027
245		0.9994 0.9966	0.0028
246		0.9997 0.9966	0.0031
247		0.9988 0.9966	0.0022
248		0.9988 0.9966	0.0022
249		0.9995 0.9966	0.0029
250		0.9990 0.9966	0.0024
251 UP	1.0063 1.0000 1.0045 0.9989 1.0020 0.9978 1.0000 0.9966	0.0063 0.0054 0.0042 0.0034	
251 DN	1.0033 0.9994 1.0019 0.9984 1.0009 0.9975 1.0000 0.9966	0.0089 0.0035 0.0034 0.0034	
252		0.9998 0.9966	0.0032
253		1.0002 0.9966	0.0036
254		1.0003 0.9966	0.0037
255		1.0006 0.9966	0.0040
256		1.0006 0.9966	0.0040
257		1.0007 0.9966	0.0041
258		1.0000 0.9966	0.0034
259		0.9989 0.9966	0.0023
260		0.9994 0.9966	0.0028
261		1.0000 0.9966	0.0037
262		0.9997 0.9966	0.0031
263		1.0003 0.9966	0.0037
264		0.9999 0.9966	0.0033
265		1.0000 0.9966	0.0034
266		0.9989 0.9966	0.0023
267		0.9994 0.9966	0.0028
268		0.9991 0.9966	0.0025
269		0.9983 0.9966	0.0017
270		0.9979 0.9966	0.0013
271 UP	1.0058 1.0000 1.0037 0.9990 1.0015 0.9979 0.9994 0.9966	0.0058 0.0047 0.0036 0.0028	
271 DN	1.0030 0.9995 1.0016 0.9985 1.0005 0.9976 0.9994 0.9966	0.0035 0.0031 0.0029 0.0028	
272		0.9981 0.9966	0.0015
273		0.9989 0.9966	0.0023
274		0.9986 0.9966	0.0020
275		1.0003 0.9966	0.0037
276		1.0004 0.9966	0.0038
277		1.0015 0.9966	0.0049
278		1.0013 0.9966	0.0047
279		1.0004 0.9966	0.0038
280		1.0001 0.9966	0.0035
281		1.0001 0.9966	0.0035
282		0.9992 0.9966	0.0026
283		0.9986 0.9966	0.0020
284		0.9998 0.9966	0.0032
285		1.0002 0.9966	0.0036
286		0.9993 0.9966	0.0027
287		0.9986 0.9966	0.0020
288			
289		0.9988 0.9966	0.0022
290		0.9990 0.9966	0.0024
291 UP	1.0064 1.0000 1.0042 0.9989 1.0019 0.9978 0.9999 0.9966	0.0064 0.0053 0.0041 0.0033	
291 DN	1.0035 0.9994 1.0020 0.9984 1.0010 0.9975 0.9999 0.9966	0.0041 0.0035 0.0035 0.0033	
292		1.0000 0.9966	0.0034
293		0.9998 0.9966	0.0032
294		0.9996 0.9966	0.0030
295		1.0008 0.9966	0.0037
296		1.0004 0.9966	0.0038
297		1.0004 0.9966	0.0038
298		1.0008 0.9966	0.0042
299		1.0009 0.9966	0.0043
300		0.9995 0.9966	0.0029
301		0.9991 0.9966	0.0025
302		1.0001 0.9966	0.0035
303		1.0002 0.9966	0.0036
304		1.0004 0.9966	0.0038
305		1.0014 0.9966	0.0048
306		1.0014 0.9966	0.0048
307		1.0010 0.9966	0.0044
308		1.0070 0.9966	0.0104
309		1.0006 0.9966	0.0040
310		1.0001 0.9966	0.0035
311 UP	1.0069 1.0000 1.0048 0.9989 1.0026 0.9998 1.0003 0.9966	0.0069 0.0059 0.0028 0.0037	
311 DN	1.0041 0.9995 1.0025 0.9985 1.0019 0.9978 1.0003 0.9966	0.0046 0.0040 0.0043 0.0037	
312		1.0001 0.9966	0.0035
313		1.0005 0.9966	0.0039
314		0.9999 0.9966	0.0033
315		0.9993 0.9966	0.0027
316		0.9994 0.9966	0.0028
317		0.9992 0.9966	0.0026
318		0.9991 0.9966	0.0025
319		0.9990 0.9966	0.0024
320		0.9992 0.9966	0.0026
321		0.9986 0.9966	0.0020
322		0.9982 0.9966	0.0016
323		0.9970 0.9966	0.0004
324		0.9968 0.9966	0.0002

325		0.9974 0.9966	0.0008
326		0.9978 0.9966	0.0012
327		0.9978 0.9966	0.0012
328		0.9989 0.9966	0.0023
329		0.9988 0.9966	0.0022
330		0.9993 0.9966	0.0027
331 UP	1.0062 1.0000 1.0041 0.9989 1.0019 0.9978	0.9997 0.9966	0.0062 0.0052 0.0041 0.0031
331 DN	1.0033 0.9994 1.0019 0.9984 1.0008 0.9975	0.9997 0.9966	0.0039 0.0035 0.0033 0.0031
332		0.9996 0.9966	0.0030
333		0.9994 0.9966	0.0029
334		1.0006 0.9966	0.0040
335		1.0005 0.9966	0.0039
336		1.0008 0.9966	0.0037
337		1.0002 0.9966	0.0036
338		1.001 0.9966	0.0035
339		1.0004 0.9966	0.0038
340		0.9997 0.9966	0.0031
341		0.9998 0.9966	0.0032
342		1.0011 0.9966	0.0045
343		1.0003 0.9966	0.0037
344		0.9994 0.9966	0.0028
345		0.9993 0.9966	0.0027
346		0.9989 0.9966	0.0023
347		0.9988 0.9966	0.0022
348		0.9989 0.9966	0.0023
349		0.9998 0.9966	0.0032
350		0.9985 0.9966	0.0019
351 UP	1.0047 1.0000 1.0026 0.9989 1.0006 0.9978	0.9982 0.9966	0.0047 0.0037 0.0028 0.0016
351 DN	1.0019 0.9994 1.0005 0.9984 0.9992 0.9975	0.9982 0.9966	0.0025 0.0021 0.0017 0.0016
352		0.9990 0.9966	0.0024
353		0.9994 0.9966	0.0028
354		0.9996 0.9966	0.0030
355		1.0004 0.9966	0.0038
356		0.9998 0.9966	0.0032
357		0.9996 0.9966	0.0030
358		1.0008 0.9966	0.0042
359		0.9997 0.9966	0.0031
360		1.0003 0.9966	0.0037
361		1.0005 0.9966	0.0039
362		1.0019 0.9966	0.0053
363		1.0021 0.9966	0.0055
364		1.0014 0.9966	0.0048
365		1.0003 0.9966	0.0037
366		1.0007 0.9966	0.0041
367		0.9996 0.9966	0.0030
368		1.0000 0.9966	0.0034
369		1.0000 0.9966	0.0034
370		0.9997 0.9966	0.0031
371 UP	1.0053 1.0000 1.0031 0.9988 1.0010 0.9978	0.9988 0.9966	0.0053 0.0043 0.0032 0.0022
371 DN	1.0024 0.9993 1.0011 0.9983 1.0000 0.9974	0.9988 0.9966	0.0031 0.0028 0.0026 0.0022
372		1.0000 0.9966	0.0034
373		1.0006 0.9966	0.0040
374		1.0000 0.9966	0.0034
375		0.9984 0.9966	0.0018
376		0.9988 0.9966	0.0022
377		0.9990 0.9966	0.0024
378		0.9996 0.9966	0.0030
379		0.9985 0.9966	0.0019
380		0.9997 0.9966	0.0031
381		0.9990 0.9966	0.0024
382		0.9991 0.9966	0.0025
383		0.9987 0.9966	0.0021
384		0.9984 0.9966	0.0018
385		0.9989 0.9966	0.0023
386		0.9984 0.9966	0.0018
387		0.9991 0.9966	0.0025
388		1.0001 0.9966	0.0035
389		0.9993 0.9966	0.0027
390		0.9999 0.9966	0.0033
391 UP	1.0068 1.0000 1.0044 0.9989 1.0021 0.9978	1.0001 0.9966	0.0068 0.0055 0.0043 0.0035
391 DN	1.0037 0.9999 1.0022 0.9984 1.0010 0.9975	1.0001 0.9966	0.0038 0.0038 0.0035 0.0035
392		0.9999 0.9966	0.0033
393		1.0005 0.9966	0.0039
394		1.0008 0.9966	0.0042
395		0.9999 0.9966	0.0033
396		0.9998 0.9966	0.0032
397		1.0005 0.9966	0.0039
398		1.0006 0.9966	0.0040
399		1.0003 0.9966	0.0037
400		1.0003 0.9966	0.0037
401		0.9987 0.9966	0.0021
402		0.9999 0.9966	0.0033
403		1.0003 0.9966	0.0037
404		1.0000 0.9966	0.0034
405		0.9993 0.9966	0.0027
406		0.9995 0.9966	0.0029
407		1.0001 0.9966	0.0035
408		1.0001 0.9966	0.0035
409		1.0001 0.9966	0.0035
410		0.9996 0.9966	0.0020
411 UP	1.0047 1.0000 1.0024 0.9988 1.0006 0.9978	0.9984 0.9966	0.0047 0.0035 0.0028 0.0018
411 DN	1.0020 0.9994 1.0007 0.9983 0.9996 0.9975	0.9984 0.9966	0.0026 0.0024 0.0021 0.0018
412		0.9996 0.9966	0.0030
413		1.0004 0.9966	0.0038
414		1.0006 0.9966	0.0040
415		1.0007 0.9966	0.0041
416		1.0000 0.9966	0.0034
417		0.9998 0.9966	0.0022
418		0.9990 0.9966	0.0024
419		0.9985 0.9966	0.0019
420		0.9986 0.9966	0.0020
421		0.9989 0.9966	0.0023
422		0.9990 0.9966	0.0024
423		1.0001 0.9966	0.0035
424		1.0006 0.9966	0.0040
425		0.9991 0.9966	0.0025
426		0.9985 0.9966	0.0019
427		0.9981 0.9966	0.0015
428		0.9979 0.9966	0.0018
429			
430			



96		0.9999	0.9975		0.0015
97		0.9989	0.9975		0.0014
98		0.9988	0.9975		0.0013
99		0.9986	0.9975		0.0011
100 UP	1.0045	1.0000	1.0021	0.9991	1.0001
100 DN	1.0021	0.9997	1.0002	0.9987	0.9990
101		0.9980	0.9975		0.0003
102		0.9973	0.9975		-.0002
103		0.9969	0.9975		-.0005
104		0.9977	0.9975		0.0014
105		0.9972	0.9975		0.0002
106		0.9969	0.9975		-.0003
107		0.9978	0.9975		-.0006
108		0.9973	0.9975		0.0003
109		0.9988	0.9975		-.0002
110		0.9987	0.9975		0.0012
111		0.9991	0.9975		0.0016
112		0.9987	0.9975		0.0012
113		0.9988	0.9975		0.0013
114		0.9986	0.9975		0.0011
115		0.9975	0.9975		0.0000
116		0.9982	0.9975		0.0007
117		0.9983	0.9975		0.0008
118		0.9975	0.9975		0.0000
119		0.9985	0.9975		0.0010
120 UP	1.0038	1.0000	1.0019	0.9992	0.9993
120 DN	1.0013	0.9997	0.9999	0.9989	0.9982
121		0.9971	0.9975	0.0038	0.0027
122		0.9972	0.9975	0.0016	0.0010
123		0.9976	0.9975		-.0003
124		0.9974	0.9975		0.0001
125		0.9971	0.9975		-.0004
126		0.9987	0.9975		0.0012
127		0.9981	0.9975		0.0006
128		0.9985	0.9975		0.0010
129		0.9987	0.9975		0.0012
130		0.9974	0.9975		-.0001
131		0.9973	0.9975		-.0002
132		0.9978	0.9975		0.0003
133		0.9992	0.9975		0.0007
134		0.9985	0.9975		0.0010
135		0.9991	0.9975		0.0016
136		0.9998	0.9975		0.0023
137		0.9986	0.9975		0.0011
138		0.9983	0.9975		0.0008
139		0.9992	0.9975		0.0017
140 UP	1.0050	1.0000	1.0028	0.9991	1.0006
140 DN	1.0025	0.9996	1.0009	0.9984	0.9995
141		0.9984	0.9975	0.0050	0.0037
142		0.9984	0.9975	0.0029	0.0025
143		0.9988	0.9975		0.0005
144		0.9988	0.9975		0.0008
145		0.9988	0.9975		0.0013
146		0.9982	0.9975		0.0013
147		0.9982	0.9975		0.0007
148		0.9969	0.9975		-.0006
149		0.9978	0.9975		0.0003
150		0.9987	0.9975		0.0012
151		0.9985	0.9975		0.0010
152		0.9986	0.9975		0.0011
153		0.9982	0.9975		0.0007
154		0.9985	0.9975		0.0010
155		0.9982	0.9975		0.0007
156		0.9990	0.9975		0.0015
157		0.9979	0.9975		0.0004
158		0.9972	0.9975		-.0003
159		0.9964	0.9975		-.0011
160 UP	1.0025	1.0000	1.0000	0.9992	0.9981
160 DN	0.9998	0.9998	0.9982	0.9989	0.9968
161		0.9959	0.9975	0.0025	0.0008
162		0.9954	0.9975	0.0000	-.0016
163		0.9957	0.9975		-.0021
164		0.9982	0.9975		0.0007
165		0.9978	0.9975		-.0002
166		0.9970	0.9975		-.0005
167		0.9986	0.9975		0.0011
168		0.9991	0.9975		0.0016
169		0.9986	0.9975		0.0011
170		0.9989	0.9975		0.0014
171		0.9988	0.9975		0.0013
172		0.9964	0.9975		0.0009
173		0.9971	0.9975		-.0004
174		0.9971	0.9975		-.0004
175		0.9978	0.9975		-.0002
176		0.9976	0.9975		0.0001
177		0.9961	0.9975		-.0014
178		0.9964	0.9975		-.0011
179		0.9972	0.9975		-.0003
180 UP	1.0046	1.0000	1.0023	0.9991	1.0000
180 DN	1.0022	0.9997	1.0004	0.9988	0.9990
181		0.9978	0.9975	0.0046	0.0032
182		0.9972	0.9975	0.0025	0.0017
183		0.9971	0.9975	0.0003	0.0003
184		0.9983	0.9975		-.0004
185		0.9980	0.9975		0.0005
186		0.9977	0.9975		0.0005
187		0.9974	0.9975		-.0001
188		0.9968	0.9975		-.0007
189		0.9969	0.9975		-.0006
190		0.9965	0.9975		-.0009
191		0.9969	0.9975		-.0008
192		0.9966	0.9975		-.0009
193		0.9962	0.9975		-.0018
194		0.9974	0.9975		-.0001
195		0.9982	0.9975		0.0007
196		0.9988	0.9975		0.0013
197		0.9990	0.9975		0.0015
198		0.9982	0.9975		0.0007
199		0.9967	0.9975		-.0008
200 UP	1.0054	1.0000	1.0081	0.9990	1.0009
200 DN	1.0030	0.9996	1.0011	0.9987	1.0000
201		0.9987	0.9975	0.0054	0.0041
202		0.9990	0.9975	0.0034	0.0024
203		0.9982	0.9975	0.0020	0.0012
204		0.9971	0.9975		0.0007
205		0.9977	0.9975		0.0002
206		0.9985	0.9975		0.0010
207		0.9990	0.9975		0.0015
208		0.9978	0.9975		0.0003
209		0.9973	0.9975		-.0002

210		0.9976 0.9975	0.0001
211		0.9982 0.9975	0.0007
212		0.9959 0.9975	-0.0006
213		0.9982 0.9975	0.0007
214		0.9975 0.9975	0.0000
215		0.9963 0.9975	-0.0012
216		0.9963 0.9975	-0.0012
217		0.9978 0.9975	0.0003
218		0.9983 0.9975	0.0008
219		0.9976 0.9975	0.0001
220		0.9975 0.9975	0.0000
221		0.9967 0.9975	-0.0008
222		0.9971 0.9975	-0.0004
223		0.9970 0.9975	-0.0005
224		0.9986 0.9975	0.0011
225 UP	1.0037 1.0000 1.0014 0.9992 0.9998 0.9983	0.9971 0.9975	0.0037 0.0022 0.0010 -0.0004
225 DN	1.0012 0.9997 0.9998 0.9989 0.9983 0.9981	0.9971 0.9975	0.0015 0.0004 0.0002 -0.0004
226		0.9978 0.9975	-0.0002
227		0.9976 0.9975	0.0001
228		0.9993 0.9975	0.0018
229		0.9980 0.9975	0.0005
230		0.9981 0.9975	0.0006
231		0.9984 0.9975	0.0009
232		0.9977 0.9975	0.0002
233		0.9970 0.9975	-0.0005
234		0.9973 0.9975	-0.0002
235		0.9978 0.9975	0.0003
236		0.9994 0.9975	0.0019
237		0.9974 0.9975	-0.0001
238		0.9963 0.9975	-0.0012
239		0.9958 0.9975	-0.0017
240		0.9980 0.9975	0.0005
241		0.9980 0.9975	0.0005
242		0.9986 0.9975	0.0011
243		0.9987 0.9975	0.0012
244		0.9996 0.9975	0.0021
245 UP	1.0050 1.0000 1.0027 0.9992 1.0006 0.9984	0.9988 0.9975	0.0050 0.0035 0.0022 0.0008
245 DN	1.0025 0.9998 1.0008 0.9989 0.9994 0.9979	0.9983 0.9975	0.0027 0.0019 0.0015 0.0008
246		0.9978 0.9975	0.0003
247		0.9972 0.9975	-0.0003
248		0.9969 0.9975	-0.0006
249		0.9969 0.9975	-0.0006
250		0.9976 0.9975	0.0001
251		0.9979 0.9975	0.0004
252		0.9972 0.9975	-0.0003
253		0.9971 0.9975	-0.0004
254		0.9971 0.9975	-0.0004
255		0.9981 0.9975	0.0006
256		0.9975 0.9975	0.0000
257		0.9984 0.9975	0.0009
258		0.9988 0.9975	0.0013
259		0.9972 0.9975	-0.0003
260		0.9989 0.9975	0.0014
261		0.9983 0.9975	0.0008
262		0.9984 0.9975	0.0009
263		0.9974 0.9975	-0.0001
264		0.9962 0.9975	-0.0013
265 UP	1.0030 1.0000 1.0006 0.9992 0.9985 0.9984	0.9969 0.9975	0.0030 0.0014 0.0001 -0.0006
265 DN	1.0003 0.9997 0.9987 0.9988 0.9975 0.9981	0.9969 0.9975	0.0006 -0.0001 -0.0006 -0.0006
266		0.9954 0.9975	-0.0021
267		0.9955 0.9975	-0.0020
268		0.9978 0.9975	0.0003
269		0.9977 0.9975	0.0002
270		0.9976 0.9975	0.0001
271		0.9975 0.9975	0.0000
272		0.9967 0.9975	-0.0008
273		0.9979 0.9975	0.0004
274		0.9980 0.9975	0.0005
275		0.9975 0.9975	0.0000
276		0.9982 0.9975	0.0007
277		0.9987 0.9975	0.0012
278		0.9984 0.9975	0.0009
279		0.9975 0.9975	0.0000
280		0.9988 0.9975	0.0018
281		0.9990 0.9975	0.0015
282		0.9992 0.9975	0.0017
283		0.9988 0.9975	0.0013
284		0.9982 0.9975	0.0007
285 UP	1.0039 1.0000 1.0015 0.9992 0.9998 0.9984	0.9972 0.9975	0.0039 0.0023 0.0009 -0.0003
285 DN	1.0014 0.9997 0.9996 0.9989 0.9984 0.9981	0.9972 0.9975	0.0017 0.0007 0.0003 -0.0003
286		0.9974 0.9975	-0.0001
287		0.9976 0.9975	0.0001
288		0.9969 0.9975	-0.0006
289		0.9977 0.9975	0.0002
290		0.9988 0.9975	0.0013
291		0.9991 0.9975	0.0015
292		0.9978 0.9975	0.0003
293		0.9988 0.9975	0.0005
294		0.9986 0.9975	0.0011
295		0.9989 0.9975	0.0114
296		0.9986 0.9975	0.0011
297		0.9975 0.9975	0.0000
298		0.9981 0.9975	0.0006
299		0.9983 0.9975	0.0008
300		0.9982 0.9975	0.0007
301		0.9979 0.9975	0.0004
302		0.9980 0.9975	0.0005
303		0.9976 0.9975	0.0001
304		0.9983 0.9975	0.0008
305 UP	1.0042 1.0000 1.0018 0.9991 0.9998 0.9983	0.9975 0.9975	0.0042 0.0027 0.0015 0.0000
305 DN	1.0021 0.9996 1.0000 0.9988 0.9997 0.9980	0.9975 0.9975	0.0025 0.0012 0.0017 0.0000
306		0.9977 0.9975	0.0002
307		0.9971 0.9975	-0.0004
308		0.9964 0.9975	-0.0011
309		0.9978 0.9975	0.0003
310		0.9986 0.9975	0.0011
311		0.9981 0.9975	0.0006
312		0.9978 0.9975	0.0003
313		0.9967 0.9975	-0.0008
314		0.9978 0.9975	-0.0002
315		0.9977 0.9975	0.0002
316		0.9978 0.9975	-0.0002
317		0.9977 0.9975	0.0002
318		0.9981 0.9975	0.0006
319		0.9969 0.9975	-0.0006
320		0.9970 0.9975	-0.0005
321		0.9968 0.9975	-0.0007
322		0.9973 0.9975	-0.0002
323		0.9971 0.9975	-0.0004
324		0.9963 0.9975	-0.0012





96		0.9997 0.9975	0.0022
97		0.9999 0.9975	0.0024
98		1.0000 0.9975	0.0025
99		0.9998 0.9975	0.0023
100 UP	1.0056 1.0000 1.0033 0.9992 1.0015 0.9985	0.9998 0.9975	0.0056 0.0041 0.0030 0.0021
100 DN	1.0033 0.9997 1.0017 0.9985 1.0005 0.9983	0.9996 0.9975	0.0036 0.0032 0.0022 0.0021
101		0.9990 0.9975	0.0015
102		0.9991 0.9975	0.0016
103		0.9988 0.9975	0.0011
104		0.9996 0.9975	0.0021
105		0.9986 0.9975	0.0011
106		0.9987 0.9975	0.0012
107		0.9982 0.9975	0.0007
108		0.9991 0.9975	0.0016
109		0.9988 0.9975	0.0013
110		0.9987 0.9975	0.0012
111		0.9992 0.9975	0.0017
112		0.9985 0.9975	0.0010
113		0.9983 0.9975	0.0008
114		0.9985 0.9975	0.0010
115		0.9992 0.9975	0.0017
116		0.9989 0.9975	0.0014
117		0.9992 0.9975	0.0017
118		0.9988 0.9975	0.0013
119		0.9987 0.9975	0.0012
120 UP	1.0054 1.0000 1.0038 0.9992 1.0015 0.9985	0.9995 0.9975	0.0054 0.0041 0.0030 0.0020
120 DN	1.0081 0.9996 1.0014 0.9989 1.0001 0.9983	0.9995 0.9975	0.0035 0.0025 0.0018 0.0020
121		0.9978 0.9975	0.0003
122		0.9981 0.9975	0.0006
123		0.9977 0.9975	0.0002
124		0.9984 0.9975	0.0009
125		0.9989 0.9975	0.0014
126		0.9994 0.9975	0.0019
127		0.9988 0.9975	0.0013
128		0.9989 0.9975	0.0014
129		0.9999 0.9975	0.0024
130		0.9989 0.9975	0.0014
131		0.9992 0.9975	0.0017
132		0.9986 0.9975	0.0011
133		0.9989 0.9975	0.0014
134		0.9999 0.9975	0.0024
135		0.9997 0.9975	0.0022
136		1.0003 0.9975	0.0028
137		0.9993 0.9975	0.0018
138		0.9993 0.9975	0.0018
139		0.9975 0.9975	0.0000
140 UP	1.0064 1.0000 1.0039 0.9992 1.0021 0.9985	1.0001 0.9975	0.0064 0.0047 0.0036 0.0026
140 DN	1.0038 0.9996 1.0022 0.9988 1.0009 0.9982	1.0001 0.9975	0.0042 0.0034 0.0027 0.0026
141		0.9996 0.9975	0.0021
142		0.9988 0.9975	0.0013
143		0.9985 0.9975	0.0010
144		0.9987 0.9975	0.0012
145		0.9991 0.9975	0.0016
146		0.9992 0.9975	0.0017
147		0.9987 0.9975	0.0012
148		0.9997 0.9975	0.0022
149		0.9989 0.9975	0.0014
150		0.9991 0.9975	0.0016
151		0.9990 0.9975	0.0015
152		0.9992 0.9975	0.0017
153		0.9993 0.9975	0.0019
154		0.9996 0.9975	0.0021
155		0.9992 0.9975	0.0017
156		0.9998 0.9975	0.0023
157		0.9984 0.9975	0.0009
158		0.9975 0.9975	0.0000
159		0.9972 0.9975	-0.0003
160 UP	1.0043 1.0000 1.0029 0.9992 1.0005 0.9985	0.9987 0.9975	0.0043 0.0037 0.0020 0.0012
160 DN	1.0022 0.9997 1.0006 0.9989 0.9995 0.9983	0.9987 0.9975	0.0025 0.0017 0.0012 0.0012
161		0.9985 0.9975	-0.010
162		0.9964 0.9975	-0.001
163		0.9970 0.9975	-0.005
164		0.9994 0.9975	0.0019
165		0.9982 0.9975	0.0007
166		0.9980 0.9975	0.0005
167		0.9987 0.9975	0.0012
168		0.9999 0.9975	0.0024
169		0.9995 0.9975	0.0020
170		0.9993 0.9975	0.0018
171		0.9986 0.9975	0.0011
172		0.9983 0.9975	0.0008
173		0.9982 0.9975	0.0007
174		0.9983 0.9975	0.0008
175		0.9992 0.9975	0.0007
176		0.9980 0.9975	0.0005
177		0.9982 0.9975	0.0007
178		0.9983 0.9975	0.0008
179		0.9974 0.9975	-0.0001
180 UP	1.0042 1.0000 1.0019 0.9991 1.0001 0.9985	0.9983 0.9975	0.0042 0.0028 0.0016 0.0008
180 DN	1.0018 0.9997 1.0001 0.9989 0.9992 0.9982	0.9983 0.9975	0.0021 0.0012 0.0010 0.0008
181		0.9989 0.9975	0.0014
182		0.9988 0.9975	0.0013
183		0.9986 0.9975	0.0011
184		0.9978 0.9975	0.0008
185		0.9987 0.9975	0.0012
186		0.9989 0.9975	0.0014
187		0.9985 0.9975	0.0010
188		0.9983 0.9975	0.0008
189		0.9980 0.9975	0.0005
190		0.9982 0.9975	0.0007
191		0.9982 0.9975	0.0007
192		0.9986 0.9975	0.0011
193		0.9981 0.9975	0.0006
194		0.9979 0.9975	0.0004
195		0.9982 0.9975	0.0007
196		0.9995 0.9975	0.0020
197		0.9991 0.9975	0.0016
198		0.9998 0.9975	0.0023
199		0.9992 0.9975	0.0017
200 UP	1.0043 1.0000 1.0021 0.9992 1.0003 0.9985	0.9986 0.9975	0.0043 0.0029 0.0018 0.0011
200 DN	1.0020 0.9997 1.0004 0.9990 0.9994 0.9982	0.9986 0.9975	0.0028 0.0014 0.0012 0.0011
201		0.9989 0.9975	0.0014
202		0.9999 0.9975	0.0024
203		0.9997 0.9975	0.0022
204		0.9976 0.9975	0.0001
205		0.9985 0.9975	0.0010
206		0.9983 0.9975	0.0008
207		0.9978 0.9975	0.0003
208		0.9993 0.9975	0.0018
209		0.9991 0.9975	0.0016

210		0.9985 0.9975	0.0010
211		0.9983 0.9975	0.0008
212		0.9990 0.9975	0.0015
213		0.9983 0.9975	0.0008
214		0.9989 0.9975	0.0014
215		0.9990 0.9975	0.0015
216		0.9982 0.9975	0.0007
217		0.9980 0.9975	0.0005
218		0.9971 0.9975	-.0004
219		0.9981 0.9975	0.0006
220		0.9994 0.9975	0.0015
221		0.9986 0.9975	0.0011
222		0.9986 0.9975	0.0011
223		0.9980 0.9975	0.0005
224		0.9984 0.9975	0.0009
225 UP	1.0043 1.0000 1.0028 0.9992 1.0004 0.9985	0.9987 0.9975	0.0043 0.0031 0.0019 0.0012
225 DN	1.0022 0.9997 1.0005 0.9988 0.9995 0.9988	0.9987 0.9975	0.0025 0.0017 0.0012 0.0012
226		0.9981 0.9975	0.0014
227		0.9991 0.9975	0.0016
228		0.9976 0.9975	0.0001
229		0.9981 0.9975	0.0006
230		0.9992 0.9975	0.0017
231		0.9991 0.9975	0.0016
232		0.9987 0.9975	0.0012
233		0.9988 0.9975	0.0013
234		0.9991 0.9975	0.0016
235		0.9987 0.9975	0.0012
236		0.9986 0.9975	0.0005
237		0.9983 0.9975	0.0011
238		0.9998 0.9975	0.0018
239		0.9998 0.9975	0.0023
240		0.9975 0.9975	0.0000
241		0.9976 0.9975	0.0001
242		0.9986 0.9975	0.0011
243		0.9990 0.9975	0.0015
244		0.9985 0.9975	0.0010
245 UP	1.0056 1.0000 1.0032 0.9992 1.0014 0.9985	0.9993 0.9975	0.0056 0.0040 0.0029 0.0018
245 DN	1.0029 0.9997 1.0014 0.9989 1.0002 0.9983	0.9993 0.9975	0.0032 0.0025 0.0019 0.0018
246		0.9993 0.9975	0.0018
247		0.9989 0.9975	0.0014
248		0.9986 0.9975	0.0011
249		0.9982 0.9975	0.0007
250		0.9972 0.9975	-.0003
251		0.9968 0.9975	-.0007
252		0.9979 0.9975	0.0004
253		0.9983 0.9975	0.0008
254		0.9984 0.9975	0.0009
255		0.9983 0.9975	0.0008
256		0.9982 0.9975	0.0007
257		0.9990 0.9975	0.0015
258		0.9992 0.9975	0.0017
259		0.9998 0.9975	0.0023
260		0.9945 0.9975	0.0020
261		0.9996 0.9975	0.0021
262		0.9990 0.9975	0.0015
263		0.9988 0.9975	0.0013
264		0.9996 0.9975	0.0021
265 UP	1.0048 1.0000 1.0025 0.9992 1.0008 0.9985	0.9988 0.9975	0.0048 0.0033 0.0018 0.0018
265 DN	1.0025 0.9998 1.0005 0.9990 0.9997 0.9982	0.9988 0.9975	0.0027 0.0015 0.0015 0.0013
266		0.9973 0.9975	-.0002
267		0.9971 0.9975	-.0004
268		0.9967 0.9975	-.0008
269		0.9964 0.9975	-.0011
270		0.9975 0.9975	0.0000
271		0.9981 0.9975	0.0005
272		0.9982 0.9975	0.0007
273		0.9984 0.9975	0.0009
274		0.9972 0.9975	-.0003
275		0.9978 0.9975	0.0003
276		0.9982 0.9975	0.0007
277		0.9987 0.9975	0.0012
278		0.9983 0.9975	0.0008
279		0.9996 0.9975	0.0021
280		0.9989 0.9975	0.0014
281		0.9988 0.9975	0.0008
282		0.9997 0.9975	0.0022
283		0.9997 0.9975	0.0022
284		0.9996 0.9975	0.0021
285 UP	1.0059 1.0000 1.0037 0.9992 1.0020 0.9983	0.9999 0.9975	0.0059 0.0045 0.0037 0.0024
285 DN	1.0035 0.9996 1.0020 0.9989 1.0007 0.9982	0.9999 0.9975	0.0039 0.0031 0.0025 0.0024
286		0.9991 0.9975	0.0016
287		0.9988 0.9975	0.0013
288		0.9986 0.9975	0.0011
289		0.9981 0.9975	0.0006
290		0.9992 0.9975	0.0017
291		0.9996 0.9975	0.0021
292		0.9997 0.9975	0.0022
293		0.9986 0.9975	0.0011
294		0.9999 0.9975	0.0014
295		1.0000 0.9975	0.0025
296		0.9997 0.9975	0.0022
297		1.0002 0.9975	0.0027
298		0.9989 0.9975	0.0014
299		0.9991 0.9975	0.0016
300		0.9994 0.9975	0.0019
301		0.9986 0.9975	0.0011
302		0.9990 0.9975	0.0011
303		0.9999 0.9975	0.0015
304		0.9992 0.9975	0.0022
305 UP	1.0049 1.0000 1.0029 0.9992 1.0012 0.9985	0.9992 0.9975	0.0049 0.0037 0.0027 0.0017
305 DN	1.0029 0.9996 1.0012 0.9989 1.0000 0.9982	0.9992 0.9975	0.0038 0.0028 0.0018 0.0017
306		0.9997 0.9975	0.0022
307		0.9991 0.9975	0.0016
308		0.9988 0.9975	0.0011
309		0.9984 0.9975	0.0005
310		0.9973 0.9975	-.0002
311		0.9985 0.9975	0.0010
312		0.9995 0.9975	0.0020
313		0.9993 0.9975	0.0018
314		0.9990 0.9975	0.0015
315		0.9997 0.9975	0.0022
316		0.9996 0.9975	0.0021
317		0.9993 0.9975	0.0018
318		0.9992 0.9975	0.0017
319		0.9987 0.9975	0.0012
320		0.9990 0.9975	0.0015
321		0.9976 0.9975	0.0001
322		0.9976 0.9975	0.0001
323		0.9979 0.9975	0.0004
324		0.9980 0.9975	0.0005

