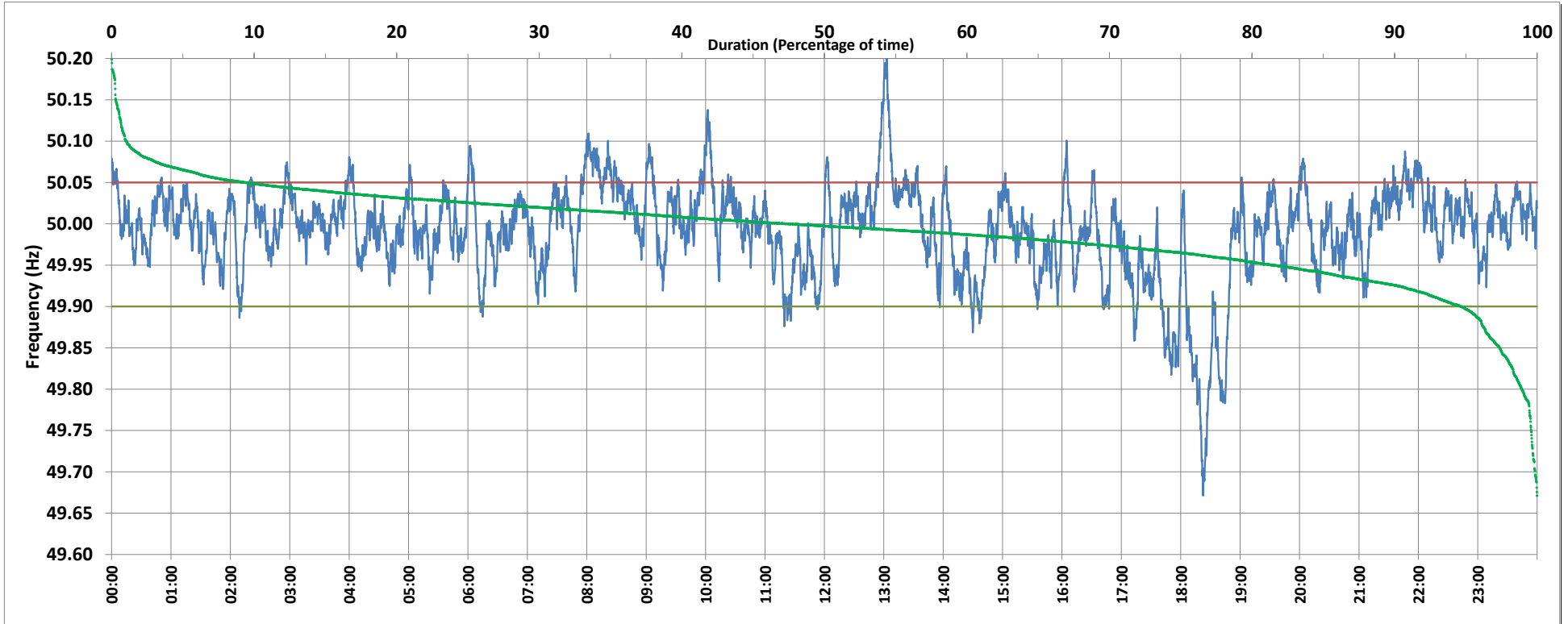


POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



Frequency profile for 22-Sep-2018 (Saturday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.1	5.3	27.9	0.9	4.2	47.0	46.6	1.0	85.3	99.8	50.7	8.4	47.5	21.4	9.4	0.0	18.5	72.1	13.2

Average Frequency : 49.991	Frequency Variation Index : 0.033	Standard Deviation : 0.056	Mileage: 46.2	FDI: 14.7
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Instantaneous Frequency		
Max	50.201	13:03:00
Min	49.671	18:22:30

15 minute Average Frequency		
Max	50.096	13:15:00
Min	49.761	18:30:00

No. of excursions	
above 50.03 Hz	169
below 49.97 Hz	141
above 50.00 Hz	214
below 50.00 Hz	214

Average time freq per excursion remains	
below 49.97	0:02:51
above 50.03	0:01:49

No. of hours freq outside 49.9-50.05 Hz	3:31:50
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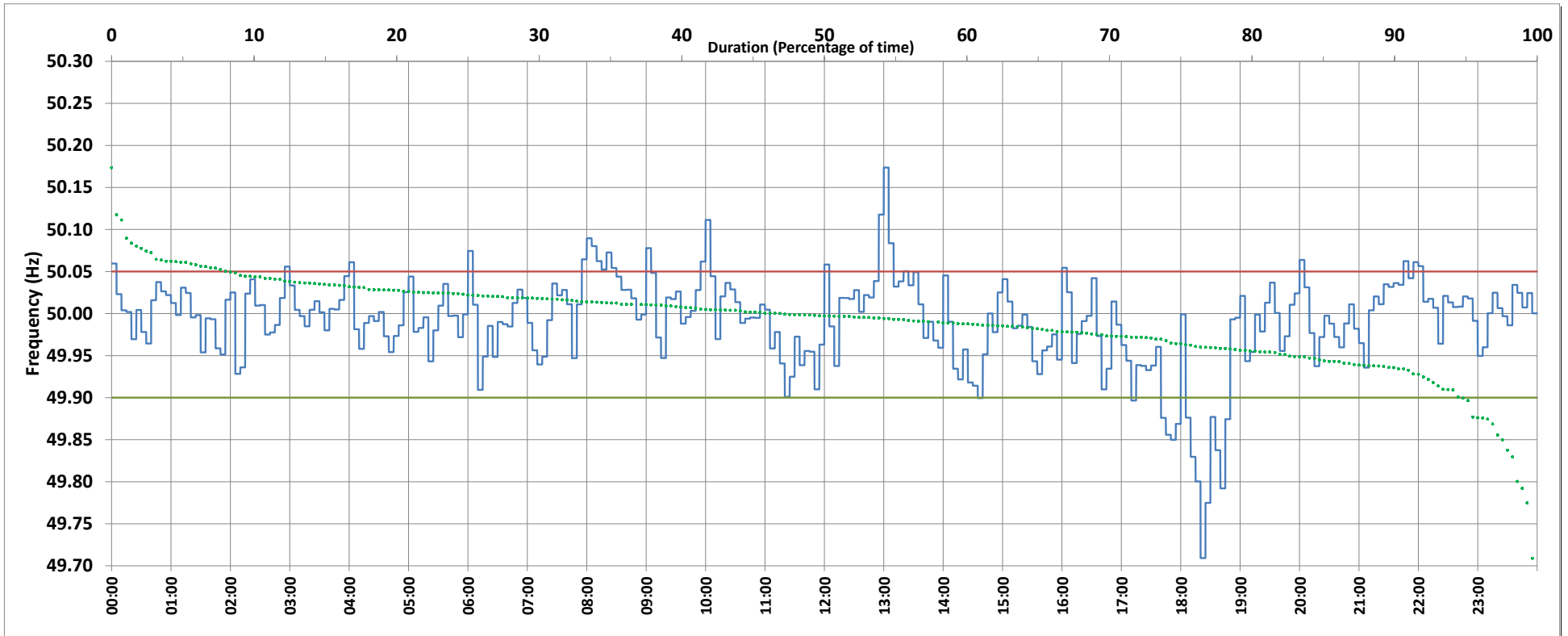
Source : NTPC-VINDHYACHAL:Frequency 10 Sec. (8640 samples)

POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



5 Min. Average Frequency profile for 22-Sep-2018 (Saturday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.00	5.21	26.74	1.04	4.17	47.57	46.18	1.04	86.46	100.00	55.21	7.29	47.22	18.06	8.33	0.00	17.4	74.3	12.2

Average Frequency : 49.991	Frequency Variation Index : 0.030	Standard Deviation : 0.054	Mileage: 8.6	FDI: 13.5
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Instantaneous Frequency		
Max	50.201	13:03:00
Min	49.671	18:22:30

5 minute Average Frequency		
Max	50.174	13:05:00
Min	49.709	18:30:00

No. of excursions	
above 50.03 Hz	24
below 49.97 Hz	33
above 50.00 Hz	37
below 50.00 Hz	36

Average time freq per excursion remains	
below 49.97	0:11:40
above 50.03	0:10:50

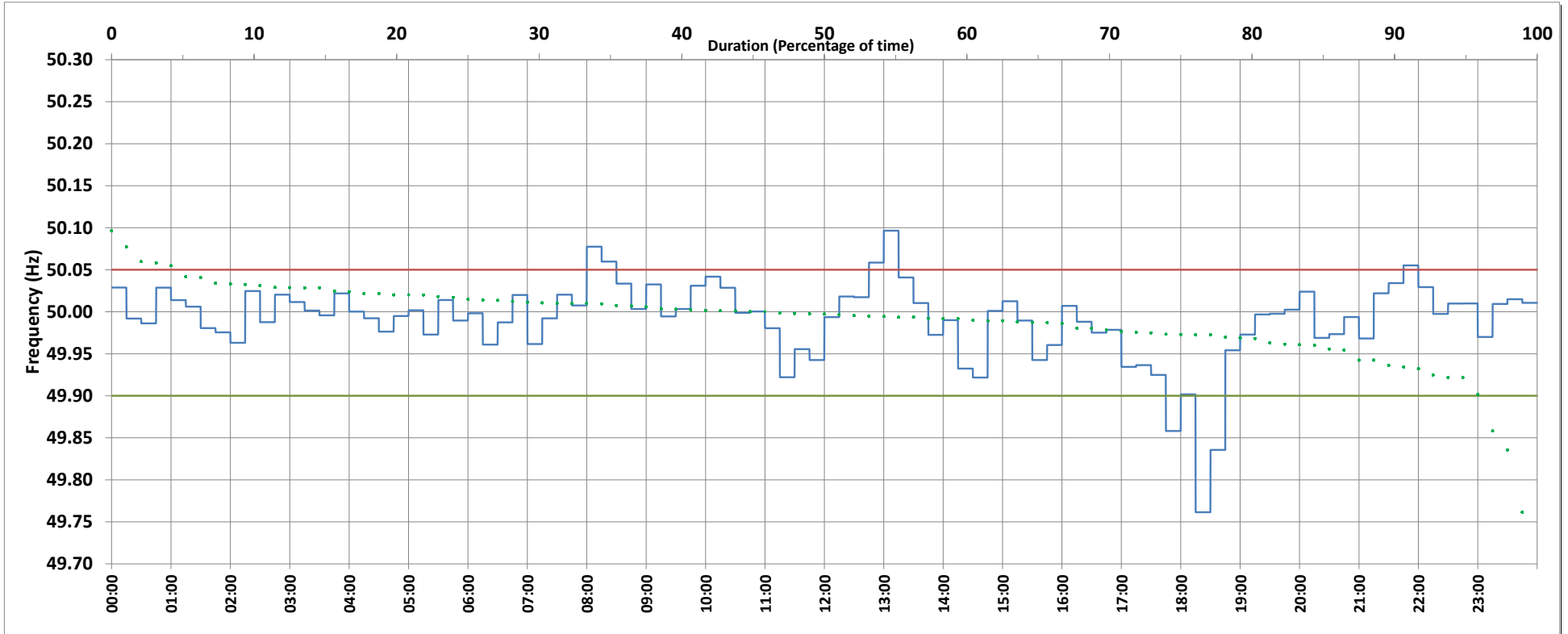
Source : NTPC-VINDHYACHAL:Frequency 5 Min. (288 samples)

POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



15 Min. Average Frequency profile for 22-Sep-2018 (Saturday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.00	3.13	21.88	1.04	2.08	50.00	46.88	0.00	91.67	100.00	66.67	5.21	46.88	11.46	5.21	0.00	12.5	82.3	9.4

Average Frequency : 49.991	Frequency Variation Index : 0.022	Standard Deviation : 0.046	Mileage: 2.7	FDI: 8.3
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Instantaneous Frequency		
Max	50.201	13:03:00
Min	49.671	18:22:30

15 minute Average Frequency		
Max	50.096	13:15:00
Min	49.761	18:30:00

No. of excursions	
above 50.03 Hz	5
below 49.97 Hz	10
above 50.00 Hz	18
below 50.00 Hz	17

Average time freq per excursion remains	
below 49.97	0:31:30
above 50.03	0:33:00

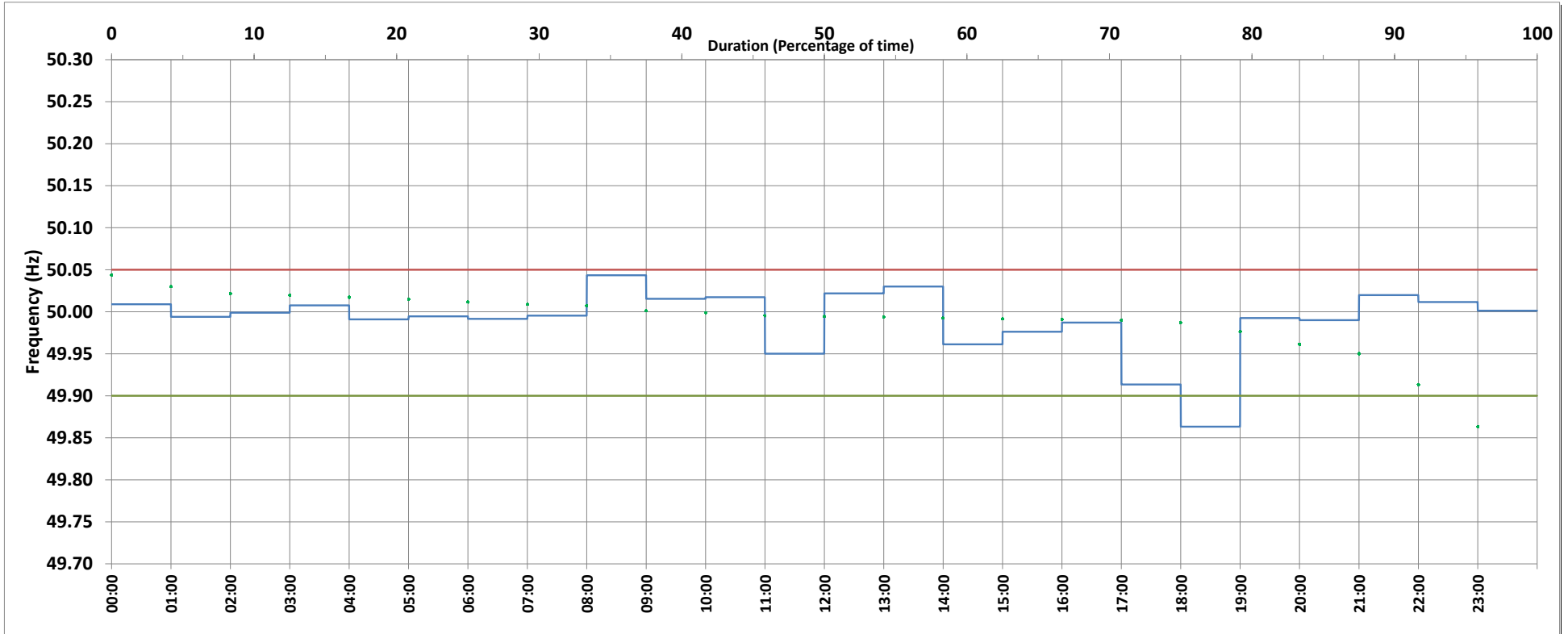
Source : NTPC-VINDHYACHAL:Frequency 15 Min. (96 samples)

POWER SYSTEM OPERATION CORPORATION LIMITED

NATIONAL LOAD DESPATCH CENTRE, NEW DELHI



Hourly Average Frequency profile for 22-Sep-2018 (Saturday)



<49.7	<49.90	<49.97	49.7-49.8	49.8-49.9	49.9-50.0	50.0-50.1	50.1-50.2	49.90-50.05	49.7-50.2	49.97-50.03	50.05-50.1	>50	>50.03	>50.05	>50.2	<49.95	49.95-50.05	49.90-49.95
0.00	4.17	16.67	0.00	4.17	54.17	41.67	0.00	95.83	100.00	75.00	0.00	41.67	8.33	0.00	0.00	8.3	91.7	4.2

Average Frequency : 49.991	Frequency Variation Index : 0.015	Standard Deviation : 0.037	Mileage: 0.7	FDI: 4.2
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Instantaneous Frequency		
Max	50.201	13:03:00
Min	49.671	18:22:30

An Hour Average Frequency		
Max	50.043	9:00:00
Min	49.863	19:00:00

No. of excursions	
above 50.03 Hz	2
below 49.97 Hz	3
above 50.00 Hz	5
below 50.00 Hz	4

Average time freq per excursion remains	
below 49.97	1:20:00
above 50.03	1:00:00

Source : NTPC-VINDHYACHAL:Frequency 60 Min. (24 samples)