RADIO TELESCOPE DATA ANALYSIS REPORT

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Data File: radio_data_clean_20250704_095948.csv
Analysis Date: 2025-07-04 10:00:28

Observation Duration: 23.8 seconds (0.4 minutes)
Total Data Points: 240
Average Sample Rate: 10.1 Hz

SIGNAL STATISTICS:

	raw_adc	voltage	smoothed	baseline_diff	signal_strength
count	239.000000	239.000000	239.000000	239.000000	239.000000
mean	39.811715	0.195046	39.792887	2.202887	2.202887
std	0.422712	0.002081	0.291893	0.291893	0.291893
min	39.000000	0.191000	39.000000	1.410000	1.410000
25%	40.000000	0.196000	39.600000	2.010000	2.010000
50%	40.000000	0.196000	39.900000	2.310000	2.310000
75%	40.000000	0.196000	40.000000	2.410000	2.410000
max	41.000000	0.200000	40.200000	2.610000	2.610000

SIGNAL DETECTION (3-sigma threshold):
Detection Threshold: 3.08
Number of signal events: 0

RECOMMENDATIONS:
1. Point antenna at Sun during day for strong radio source
2. Try observations at different times of day
3. Look for periodic variations in signal strength
4. Compare signal levels when pointing at different sky regions
5. Record weather conditions and correlate with signal variations