

# QuantumBCI Analysis Report

Generated: 2025-10-06 20:58:06

## Session Information

Filename:	S001R01.edf
Upload Time:	2025-10-06 20:56:39.420602
Original Channels:	64
Selected Channels:	20
Processing Status:	processing

## Brain Metrics Analysis

Brain State:	Deep Sleep (Stage 3-4 NREM)
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## Frequency Band Powers

Band	Absolute Power (uV^2)	Relative Power (%)
Delta	0.0000	78.18%
Theta	0.0000	17.16%
Alpha	0.0000	3.61%
Beta	0.0000	0.87%
Gamma	0.0000	0.19%

## Model Predictions

Model	Prediction	Accuracy	Time (s)
Brain State Classifier (SclerD)	Deep Sleep (Stage 3-4 NREM)	100.00%	0.050
Quantum SVM (QSVM)	Low Neural Activity	7500.00%	17.403

## Summary & Recommendations

- Best performing model: Quantum SVM (QSVM) with 7500.00% accuracy
- Detected brain state: Deep Sleep (Stage 3-4 NREM)
- Dominant frequency band: Delta
- Total spectral power: 0.0000  $\mu V^2$

### **Clinical Recommendations:**

- Low alpha activity - may indicate stress or active cognitive processing
- Continue monitoring for trend analysis
- Consult with neurologist for clinical interpretation