QKD CRYPTOGRAPHIC INTRUSION & ANOMALY REPORT

CLASSIFIED AUDIT DOCUMENT // REF-HASH: 22AC43F8095820DE

REPORT GENERATED:	**2026-02-24 15:46:47 IST**	**PROTOCOL:**	**BB84 Decoy-State**
OPERATOR ID:	**Rahul Rajesh (2360445)**	**WAVELENGTH:**	**1550 nm (ITU-T G.652)**
SESSION EVENTS:	**813**	**THREATS LOGGED:**	**813**
SYSTEM VERDICT:	**ATTACK_TIMESHIFT**	**CRYPTO STATUS:**	**KEY MATERIAL FLUSHED**

1. DUAL-ENGINE MACHINE LEARNING THREAT RESOLUTION

Signature Engine (RF Classifier):	ATTACK_TIMESHIFT	Confidence: 91.19%
Anomaly Engine (OC-SVM Boundary)	**ANOMALY DETECTED (Out-of-Distribution)**	Boolean Trigger

2. QUANTUM HARDWARE TELEMETRY DEVIATION MATRIX

Metric	Observed Value	Nominal Baseline	Calculated Deviation Δ
Detector Bias Voltage	3.29 V	3.30 V	-0.01 V
Avalanche Timing Jitter	0.050 ns	1.200 ns	-1.150 ns
Quantum Bit Error Rate	2.05%	2.50%	-0.45%

3. FORENSIC NARRATIVE & DECISION LOGIC

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FORENSIC ANALYSIS: [ATTACK_TIMESHIFT]
SOPHISTICATED THREAT: TIMING ANOMALY
Reasoning: The AI detected an efficiency mismatch indicating timing offsets.
- Evidence A: Unnatural Precision (0.05 ns). Real thermal jitter should be >1.0 ns.
-> Conclusion: Eve is shifting pulses to exploit the detector's temporal efficiency curve.
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5. AUTOMATED TELEMETRY AUDIT (LAST 15 EVENTS)

Timestamp	Verdict	Signature	Conf.	QBER
2026-02-24 15:46:45	attack_timeshift	attack_timeshift	84.90%	4.38%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	5.14%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	4.72%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	5.14%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	5.58%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	5.53%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	6.02%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	5.53%
2026-02-24 15:46:46	attack_timeshift	attack_timeshift	84.90%	4.31%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	85.95%	3.57%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	86.20%	3.20%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	88.36%	2.80%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	88.42%	2.81%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	88.42%	2.46%
2026-02-24 15:46:47	attack_timeshift	attack_timeshift	91.19%	2.05%