

# QKD CRYPTOGRAPHIC INTRUSION & ANOMALY REPORT

CLASSIFIED AUDIT DOCUMENT // REF-HASH: 47DE2E757E75A3B6

REPORT GENERATED:	2026-02-26 07:38:53 IST	PROTOCOL:	BB84 Decoy-State
OPERATOR ID:	Rahul Rajesh (2360445)	WAVELENGTH:	1550 nm (ITU-T G.652)
SESSION EVENTS:	1117	THREATS LOGGED:	1117
SYSTEM VERDICT:	ATTACK_TIMESHIFT	CRYPTO STATUS:	KEY MATERIAL FLUSHED

## 1. DUAL-ENGINE MACHINE LEARNING THREAT RESOLUTION

Signature Engine (RF Classifier):	ATTACK_TIMESHIFT	Confidence: 99.68%
Anomaly Engine (OC-SVM Boundary)	ANOMALY DETECTED (Out-of-Distribution)	Boolean Trigger

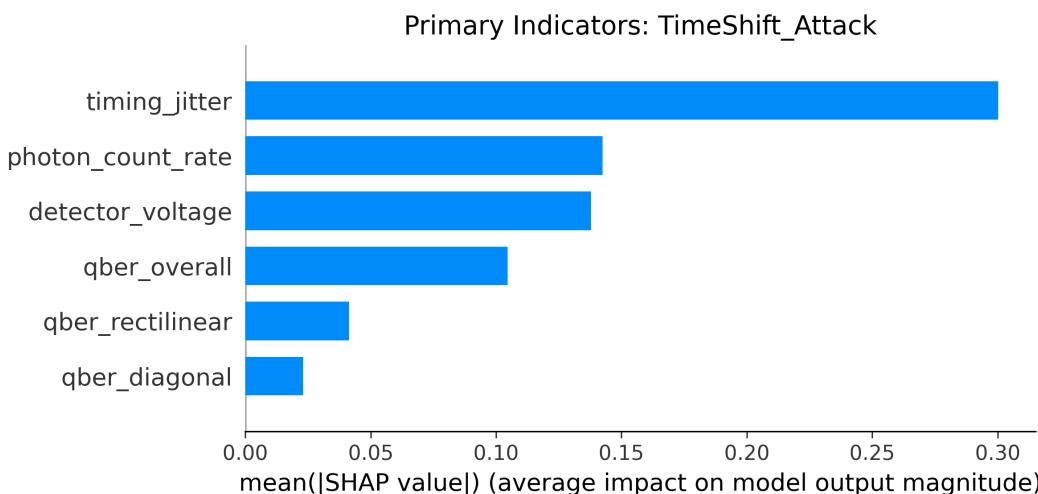
## 2. QUANTUM HARDWARE TELEMETRY DEVIATION MATRIX

Metric	Observed Value	Nominal Baseline	Calculated Deviation Δ
Detector Bias Voltage	3.31 V	3.30 V	+0.01 V
Avalanche Timing Jitter	0.050 ns	1.200 ns	-1.150 ns
Quantum Bit Error Rate	1.22%	2.50%	-1.28%

## 3. FORENSIC NARRATIVE & DECISION LOGIC

**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.

## 4. SHAP EXPLAINABLE AI VISUAL EVIDENCE



## 5. AUTOMATED TELEMETRY AUDIT (LAST 15 EVENTS)

Timestamp	Verdict	Signature	Conf.	QBER
2026-02-26 07:38:49	POTENTIAL ZERO-DAY - ESCALATE TO OPERATOR	Unclassified_Anomaly	100.00% (SVM Override)	2.73%
2026-02-26 07:38:50	attack_timeshift	attack_timeshift	85.77%	2.26%

2026-02-26 07:38:50	attack_timeshift	attack_timeshift	84.77%	2.38%
2026-02-26 07:38:50	attack_timeshift	attack_timeshift	84.77%	2.35%
2026-02-26 07:38:51	attack_timeshift	attack_timeshift	83.73%	2.76%
2026-02-26 07:38:51	attack_timeshift	attack_timeshift	85.18%	3.19%
2026-02-26 07:38:51	attack_timeshift	attack_timeshift	85.18%	3.24%
2026-02-26 07:38:51	attack_timeshift	attack_timeshift	85.18%	2.97%
2026-02-26 07:38:52	attack_timeshift	attack_timeshift	87.34%	2.13%
2026-02-26 07:38:52	attack_timeshift	attack_timeshift	86.63%	2.11%
2026-02-26 07:38:52	attack_timeshift	attack_timeshift	100.00%	1.26%
2026-02-26 07:38:52	attack_timeshift	attack_timeshift	96.08%	1.67%
2026-02-26 07:38:53	attack_timeshift	attack_timeshift	96.20%	1.63%
2026-02-26 07:38:53	attack_timeshift	attack_timeshift	95.91%	1.64%
2026-02-26 07:38:53	attack_timeshift	attack_timeshift	99.68%	1.22%