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| **Date:** | **3/18/2025** | |
| **Router Specifications** | **Data** | **Notes** |
| Internet Service Provider (ISP) | Cox |  |
| Device Name | TP-LINK AXE300 |  |
| DOCSIS Technology | N/A | Separate Modem |
| Latest Firmware Version: | 1.0.11 Build 20241115 |  |
| Known CVE’s | None |  |
| Wi-Fi Coverage | High Coverage |  |
| Maximum Throughput |  |  |
| Wi-Fi Standard | Wi-Fi 6E |  |
| Antenna Configuration | 8 high-performance antennas and beamforming technology |  |
| Processor & Ram | Quad-Core 2.0 GHz CPU, 2GB RAM |  |
| Supported WiFi Encryption | WPA3, WPA2-PSK, WPA/WPA2-Enterprise, Open Network |  |
| Supported TLS | TLS 1.3 & 1.2 |  |
| Firewall | Built in firewall, SPI, DoS, Access control, IP & Port Filtering, NAT, ALG, Parental controls and URL filtering, VPN passthrough & VPN server. |  |
| Cable/Modem combo? | No |  |
| Speed | Wifi speeds 2.4GHz 1148mbps 5GHz 4804 mbps 6GHz 4804 Mbps. Wired LAN 10G WAN/LAN port -10gbps. |  |
| Price | 375$ at Walmart, 197.99 at Amazon, $421.99 at best Buy |  |
| Lease or Purchase? | Purchase, compatible with Cox | Not provided by Cox |

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| **Security (40%)** | | | | | |
| Reference ID | Security Criteria | Measurement Criteria | Scoring Scale (0-10 or Yes/No) | Result | Notes |
| CL.OOB-006 | Default Credentials | Are default credentials required to be changed upon initial setup? | (Yes = 10, No = 0) |  |  |
| CL.SBOM-010 | Firmware Update Frequency | Number of security updates per year | (≥4 = 10, 2-3 = 5, ≤1 = 0) |  |  |
| NVD.NIST.GOV | Known Vulnerabilities (CVE Count) | Publicly disclosed vulnerabilities in past 2 years | (0 = 10, 1-2 = 7, 3-5 = 5, >5 = 0) |  |  |
| CL.NETA-002  IMDA.4.5.2.4.1 | Encryption Support | WPA3 Support | (WPA3 = 10, WPA2 = 5, No WPA3 = 0) |  |  |
| CL.OOB-008  CL.NETS-005 | Remote Access | Are the following remote features disabled by default (Telnet, SSH, UPnP, FTP)? | (Yes = 10, No = 0) |  |  |
| CL.NETS-001 | Admin Interface | Does the router enforce HTTPS for admin access? | (Yes = 10, No = 0) |  |  |
| IMDA.4.3.15.1 | Firewall | Is the firewall enabled by default? | (Yes = 10, No = 0) |  |  |
|  | Network Isolation | Can the guest network be isolated from the main network? | (Yes = 10, No = 0) |  |  |
| IMDA.4.3.g  IMDA.4.3.a | Automatic Security Updates | Does the router support automatic security updates? | (Yes = 10, No = 0) |  |  |
| **Total Security Score** |  | | | | |
| **Usability (20%)** | | | | | |
| IMDA.GEN.OPS.10 | Setup Time | Is the device self-installable by an end user in under 20 minutes assuming the default configuration and mode of operation? | (≤20 min = 10, >20 min = 0) |  |  |
| IMDA.GEN.OPS.4 | Lifespan | Is the life expectancy of the router at least 7 years? | (≤7 years = 0, >7 years = 10) |  |  |
| IMDA. GEN.OPS.11 | Drivers | Are additional drivers other than networking drivers required for full and proper use of the device? | (Yes = 0, No = 10) |  |  |
| IMDA. GEN.OPS.19 | Website Support | Is there a web site where firmware updates and documentation are available? | (Yes = 10, No = 0) |  |  |
| **Total Usability Score** |  | | | | |
| **Performance (30%)** | | | | | |
| PERF.1 | Wi-Fi Speed | Maximum download & upload speeds | Mbps (≥80% of ISP speed = 10, ≤40% = 0) |  | ISP claims 1 Gbps speed, but reviews show 700 Mbps actual - Score: 7/10 |
| PERF.2 | Signal Strength | Check user-reported Wi-Fi range & RSSI at distances | dBm (-30 = 10, -80 = 0) |  | Forum users report weak Wi-Fi beyond 20ft - Score: 5/10 |
| PERF.3 | Latency & Jitter | What are the ping times in ms? | ms (≤10ms = 10, ≥100ms = 0) |  |  |
| PERF.4 | Multi-Device Handling | Can it handle multiple devices without slowdown? | (Smooth = 10, Lag= 0) |  | Tech reviews show low latency & strong multi-device performance - Score: 9/10 |
| **Total Performance Score:** |  | | | | |
| **Cost & Value (10%)** | | | | | |
|  | Router Rental Fee | What is the monthly cost vs. purchase option? | (Free = 10, $15+/mo = 0) |  |  |
|  | Buyout Option | Can users purchase the router outright? | (Yes = 10, No = 0) |  |  |
|  | Hidden Fees | Are there additional costs? (e.g. services fees) | (Yes = 0, No = 10) |  |  |
| Total Cost Score |  | | | | |

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| **Final Score:** | Total Score=(Security Score×0.40)+(Usability Score×0.20)+(Performance Score×0.30)+(Cost Score×0.10) |
| **Additional Notes** |  |

References:

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| CL | CableLabs Gateway Device Security Best Common Practices |
| IMDA | IMDA Security Requirements for Residential Gateways |
| NVD.NIST.GOV | Nvd.nist.gov – CVE database |
|  | <https://www.smallnetbuilder.com/> |
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