# Java Smart Cards

## Models & Specification

| | A22CR Java Smart Card | A40CR Java Smart Card |
|---|---|---|
| |  |  |
| **Chip & Certifications** | | |
| Chip Make & Model | Infineon SLE78CLFX4000PM | Infineon SLE77CLFX2400PM |
| Chip Certification | CC EAL6+, EMVCo | CC EAL5+, EMVCo |
| FTJCOS Certification | FIPS 140-2 Level 3 | CC EAL 5+ |
| **Storage** | | |
| NVM Type | Flash (SOLID FLASH™) | Flash (SOLID FLASH™) |
| Total NVM Size | 400K | 240K |
| Total RAM Size | 8K | 6K |
| Code Area | Flash | Flash |
| User NVM Size | 138.5K | 72.8K |
| User RAM Size | 1.84K | 1.72K |
| **Algorithms** | | |
| RSA 2048 | ✔ | ✔ |
| AES | ✔ | ✔ |
| SHA-1 | ✔ | ✔ |
| SHA-256 | ✔ | ✔ |
| SHA-384 | ✔ | Optional |
| SHA-512 | ✔ | Optional |
| MD5 | ✔ | ✔ |
| 3DES (ECB, CBC) | ✔ | ✔ |

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|---|---|---|
| ECC | ✔ | Optional |
| **Standards Compliance** | | |
| Java Card™ 2.2.2 | ✔ | ✔ |
| Java Card™ 3.0.4 | ✔ | ✔ |
| Global Platform 2.1.1 | ✔ | ✔ |
| Global Platform 2.2.* | Optional | Optional |
| **Communication Protocols** | | |
| ISO 7816 T=0 | ✔ | ✔ |
| ISO 7816 T=1 | ✔ | Optional |
| ISO 14443 T=CL Type A | ✔ | ✔ |
| ISO 14443 T=CL Type B | ✔ | ✔ |
| Mifare | ✔ | ✔ |
| **JCRE Features** | | |
| APDU Buffer Size | 261 bytes | 261 bytes |
| Transaction Size | 512 bytes | 384 bytes |
| Extended APDU | ✔ | ✔ |
| RMI | ✔ | ✖ |
| Logical Channels | 20 | 1 |
| Garbage Collector | ✔ | ✔ |
| Applet Deletion | ✔ | ✔ |

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