

NXP JCOP Product Range

JCOP Version	JCOP 2.3.1				JCOP 2.3.2				JCOP 2.4.1 R2				JCOP 2.4.1 R3			
JCOP Type	4x	1x	2x	3x	J2A	J3A	J1A	J2A	J3A	J5A						
Communication																
ISO 7816, T=0, T=1 (communication speed, kbit/s)	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2	223.2			
ISO 14443 T=CL (communication speed, kbit/s)	424	-	-	424	-	848	-	-	848	-	848	-	848			
USB 2.0 LS	yes	-	-	-	-	-	-	-	-	-	-	-	-			
NFC	S2C	-	-	-	-	-	-	-	-	-	-	-	S2C / PN65			
Memory																
Available EEPROM Options KByte	72	10/18	10/18/36	12/36/72	40/80	40/80	20	20/40/80/ 95/128	20/40/80/ 95/128	80	80	80	80			
ROM (free for Applets, up to KBytes)	65	17	13	46	76	76	76	76	76	76	76	76	76			
APDU Buffer (RAM/Bytes)	261	261	261	261	1462	1462	1462	1462	1462	1462	1462	1462	1462			
JC&GP																
Java Card Version	2.2.1	2.2.1	2.2.1	2.2.1	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2	2.2.2			
Java Card STATIC Option (EEPROM versions)	-	10	10	12	-	-	-	-	-	-	-	-	-			
VGP CIR	2.0.1	2.1.1	2.1.1	2.1.1	-	-	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1			
Global Platform	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1	2.1.1			
SCP Secure Channel Protocol	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02	SCP01, SCP02			
Cryptography																
DES/TDES [bit]	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168	56/112/168			
AES [bit]	-	-	256*	-	256	256	256	256	256	256	256	256	256			
RSA [bit]	2432	-	2432	2432	2048	2048	-	2048	2048	2048	2048	2048	2048			
ECC GF(p) [bit]	-	-	-	-	320	320	-	320	320	320	320	320	320			
ECC GF(2n) [bit]	239	-	239	239	-	-	-	-	-	-	-	-	-			
SEED [bit]	128	-	128	128	128	128	-	128	128	128	128	128	128			
SHA	SHA-1	-	SHA-1	SHA-1	SHA-1 / 2	SHA-1 / 2	-	SHA-1 / 2	SHA-1 / 2	SHA-1 / 2	SHA-1 / 2	SHA-1 / 2	SHA-1 / 2			
MD5	yes	-	yes	yes	yes	yes	-	yes	yes	yes	yes	yes	yes			
Random Number Generation	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
RSA Key Generation	yes	-	yes	yes	yes	yes	-	yes	yes	yes	yes	yes	yes			
Additional Features																
Logical Channels	1	1	1	1	1	1	1	1	1	1	1	1	1			
RMI Remote Method Invocation	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
SSD Supplementary Security Domain support	yes	-	yes	yes	yes	yes	-	yes	yes	yes	yes	yes	yes			
Mifare™ API	yes	-	-	yes	-	-	-	-	-	yes	yes	yes	yes			
Extended Length APDU	-	-	-	-	yes	yes	-	yes	yes	yes	yes	yes	yes			
Random UID	yes	-	-	yes	yes	yes	-	yes	yes	yes	yes	yes	yes			
Custom ROM Masking	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
Technology	0.18 µm	0.18 µm	0.18 µm	0.18 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm	0.14 µm			
All Delivery Types Wafer and Module (as available for SmartMX Family)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
Gov + Banking Features																
BAC Support (ICAO9303)	yes	-	-	yes	yes	yes	-	yes	yes	yes	yes	yes	yes			
EAC Support (ICAO9303, BSI TR 03110 v1.1.1)	-	-	-	-	yes	yes	-	yes	yes	yes	yes	yes	yes			
BAC/EAC Accelerator API	-	-	-	-	yes	yes	-	yes	yes	yes	yes	yes	yes			
BAC Performance (20KByte Read)	7s	-	-	7s	-	1.2s	-	-	-	1.2s	1.2s	1.2s	1.2s			
EAC Performance (38KByte Read)	-	-	-	-	-	< 5s	-	-	-	< 4s	< 4s	< 4s	< 4s			
PACE Support (BSI TR 03110 v2.0.3)	-	-	-	-	-	-	-	-	-	yes	yes	yes	yes			
Gov + Banking Applets																
EAC / BAC Applet	-	-	-	-	EAC v1.0	EAC v1.0	-	EAC v1.2	EAC v1.2	-	-	-	-			
VISA VSDC	-	v2.7.1	v2.7.1	v2.7.1	-	-	2.7.1	2.7.1	2.7.1	-	-	-	-			
MCW M/Chip (Contact)	-	-	4 v1.1	-	-	-	4 v1.1	4 v1.1	4 v1.1	-	-	-	-			
MCW PayPass M/Chip (Dual Interface)	-	-	-	4 v1.3.1	-	-	-	-	-	4 v1.3.1	-	-	-			
MCW Lite & Select (SDA & DDA)	-	-	yes	yes	-	-	yes (SDA)	yes	yes	yes	yes	yes	yes			
MCP Paypass Magstripe transaction support	-	-	-	yes	-	-	-	-	-	yes	yes	yes	yes			
Certification & Approvals																
EMVCo (HW approval)	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes	yes			
VISA	-	yes	yes	yes	-	-	yes	yes	yes	yes	yes	yes	**			
MasterCard PIC•CAST	-	-	yes	yes	-	-	yes	yes	yes	yes	yes	yes	**			
Common Criteria (EAL)	-	-	-	-	5+	5+	-	5+	5+	5+	5+	5+	-			

* Available on 72 K version only ** EMV compliant