



Product Type	Integrated Communication Processor
Freescale Part #	MPC8272, MPC8248
Name	PowerQUICC 27E
Package	516 BGA
Crypto Hardware	SEC 1.0

Algorithms	Max Key Size (bits)
DES (ECB, CBC)	56
3DES (ECB, CBC)	168 (3-keys)
AES (ECB, CBC, CTR, CCM)	256
ARC-4	128
MD-5+ HMAC	(up to 512 bit keys)
SHA-1+ HMAC	(up to 512 bit keys)
SHA-256+ HMAC	(up to 512 bit keys)
RSA Digital Signature	2048-bit operands
RSA Digital Verify	2048-bit operands
ECC Digital Signature	512-bit field or modulus size
ECC Digital Verify	512-bit field or modulus size
RNG	On chip 32-bit

Target Applications:

DSLAMs, Broadband Gateways, mid-range routers, wireless access points, telecom equipment

Export Control Info:

Harmonized Tariff (US): 8542.31.0000
ENC Status: Restricted. US EAR part 740.17(b)(2)
ECCN: 5A002
CCAT: G026024

Overview:

The MPC8272 and MPC8248 are members of the PowerQUICC 2 family of integrated communications processor from Freescale. The PowerQUICC 2 is considered one of the most highly integrated and widely adopted communications processor in the world, and is capable of supporting most LAN and WAN networking standards. The MPC8272 and MPC8248 include an on-chip encryption acceleration unit which is derived from the MPC185, a Freescale Encryption Co-Processor already granted ENC status (CCAT: G026024). This on-chip encryption accelerator (also known as the SEC 1.0) is expected to achieve 200+ public key exchanges per second, and ~500Mbps 3DES throughput.