



Product Type Integrated Communication Processor
Freescale Part # MPC8555E, MPC8541E
Name PowerQUICC 37L
Package 783 FC BGA
Crypto Hardware SEC 2.0

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 MPC8555E and MPC8541E are members of the PowerQUICC 3 family of integrated communications processor from Freescale Semiconductor. The PowerQUICC 3 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. MPC8555 and MPC8541 includes 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 2.0) is expected to achieve 200+ public key exchanges per second, and ~800 Mbps 3DES throughput.