



Semiconductor Products Sector
Inter-Office Correspondence

Date: August 25, 1999
To: Mike Winkler

From: Leo Loc
Phone: 895-3121 **Mail Drop:** OE318

XC Qualification of 860SART (K20A)

The 860SART device, mask set K20A, has met XC qualification requirements and may be shipped for revenue. This product is a Fast Ethernet derivative of the 860+, mask set H99G. The 349 x 335 mil die is manufactured in MOS11 on the 0.32µm CDR2 process, and is assembled in the 357-pin PBGA (ZP) in KLM. These technologies are fully qualified. Package stresses were also performed to qualify the 1-mil bond wire for CDR2 devices.

Qualification results are summarized below.

Stress	Results (#fails/#devices)
Lifetest (4.5V, 125°C)	
E91714 (H99G)	0/77 @ 1008 hours
E94025 (0K20A)	0/80 @ 504 hours
E96514 (2K20A)	0/80 @ 168 hours
ESD Human Body Model (2KV)	
E91714 (H99G)	0/3
E94025 (0K20A)	0/3
E96514 (2K20A)	0/3
ESD Machine Model (200V)	
E91714 (H99G)	0/3
E94025 (0K20A)	0/3
E96514 (2K20A)	0/3
Latchup (200mA)	
E91714 (H99G)	0/3
E94025 (0K20A)	0/3
E96514 (2K20A)	0/3
Autoclave (121°C, 15 PSIG)	
E91714 (H99G)	0/88 @ 48 hours
E91980 (H99G)	0/32 @ 48 hours
E94025 (2K20A)	0/32 @ 48 hours
Temp Cycle (-65°C/+150°C)	
E91714 (H99G)	0/59 @ 100 cycles
E91980 (H99G)	0/60 @ 100 cycles
E94025 (0K20A)	0/60 @ 100 cycles
THB (85°C, 85%RH)	
E94025 (0K20A)	0/76 @ 1008 hours
Moisture Characterization (MSL3)	
E91714 (H99G)	0/5



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Congratulations on a successful qualification!

Regards,

Leo Loc
PCSD/NSD Reliability & Quality Assurance