

6/25/2020



**RELIABILITY MONITOR REPORT
FOR**

TJT E6

MAXIM INTEGRATED

**160 RIO ROBLES
SAN JOSE, CA 95134**

**This Report was prepared by
MAXIM INTEGRATED Reliability Engineering**

Summary:

The data in the tables that follow was generated as the result of an on-going Process Reliability Monitor. The specific products in this process monitor are:

87-17A48-D01	87-21348+T00	90-1554+07I	90-15540+07I	90-15560+07I
90-1747W+120	90-1904L#F50	90-1921G#F50	90-1922L#F52 /	90-1990A+F50
90-1995L+F50				

The calculated failure rate for devices using this process is:

FAILURE RATE: MTTF (YRS): 15503 QUANTITY: 80 FAILS: 0 FITS: 7.4

The parameters used to calculate this failure rate are as follows:

Cf: 60% Ea: 0.7 Tu: 25 °C

The reliability data follows and in this section is the detailed reliability data by stress. The reliability data section includes the latest data available. This report covers data between 1/1/2020 and 3/31/2020 .

Process Information:

Process Description: TJT E6

OPERATING LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
HIGH TEMP OP LIFE	1849	87-21348+T00	125°C	1000 HRS	33	0	FK802120AD
HIGH TEMP OP LIFE	1849	87-21348+T00	125°C	1000 HRS	33	0	FK802120AD
HIGH TEMP OP LIFE	1849	87-21348+T00	125°C	1000 HRS	14	0	FK802120AD
Total:						0	

STORAGE LIFE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
STORAGE LIFE		90-1990A+F50	150°C	1000 HRS	85	0	MK428540AAA-QAL
STORAGE LIFE	1849	87-21348+T00	150°C	1000 HRS	80	0	FK802120AD
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428516AAB-QAL
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428516AAB-QAL
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428638AAB-QAL
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428638AAB-QAL
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428639AAB-QAL
STORAGE LIFE	1907	90-1921G#F50	150°C	1000 HRS	80	0	MK428639AAB-QAL
STORAGE LIFE	1914	90-15540+07I	150°C	1000 HRS	80	0	MK429516AAA-QAL
STORAGE LIFE	1914	90-15540+07I	150°C	1000 HRS	80	0	MK429497AAA-QAL
STORAGE LIFE	1914	90-15560+07I	150°C	1000 HRS	80	0	MK429518AAA-QAL
STORAGE LIFE	1914	90-15560+07I	150°C	1000 HRS	80	0	MK429517AAA-QAL
STORAGE LIFE	1916	90-1990A+F50	150°C	1000 HRS	80	0	MK429316AAB-QAL

STORAGE LIFE	1916	90-1990A+F50	150°C	1000	HRS	80	0	MK429371AAB-QAL
STORAGE LIFE	1926	90-1904L#F50	150°C	1000	HRS	80	0	MK429966AAB-QAL
STORAGE LIFE	1926	90-1904L#F50	150°C	1000	HRS	80	0	MK429999AAB-QAL
STORAGE LIFE	1926	90-1995L+F50	150°C	1000	HRS	80	0	MK430014AAA-QAL
STORAGE LIFE	1927	90-1554+071	150°C	1000	HRS	80	0	MK430032AAA-QAL
STORAGE LIFE	1929	90-15540+071	150°C	500	HRS	80	0	MK430033AAA-QAL
STORAGE LIFE	1944	90-1922L#F52 / DS1922L-F5#C02	150°C	1000	HRS	80	0	MK431230AAB-QAL
STORAGE LIFE	1944	90-1922L#F52 / DS1922L-F5#C02	150°C	1000	HRS	80	0	MK431231AAB-QAL
STORAGE LIFE	1944	90-1922L#F52 / DS1922L-F5#C02	150°C	1000	HRS	80	0	MK431229AAB-QAL
STORAGE LIFE	1946	90-1922L#F52 / DS1922L-F5#C02	150°C	1000	HRS	80	0	MK431415AAB-QAL
STORAGE LIFE	1946	90-1922L#F52 / DS1922L-F5#C02	150°C	1000	HRS	80	0	MK431416AAB-QAL
Total:							0	

TEMPERATURE CYCLE

DESCRIPTION	DATE CODE	TEST VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1921G#F50	-65C TO +150C (Condition C)	1000	CYS	85	0 MK428114AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL		90-1747W+120	-65C TO +150C (Condition C)	1000	CYS	85	0 MK428115AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL		87-17A48-D01	-65C TO +150C (Condition C)	1000	CYS	85	0 MK428117AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1849	87-21348+T00	-65C TO +150C (Condition C)	1000	CYS	80	0 FK802120AD
TEMP CYCLE, 5' RAMP, 10' DWELL	1851	90-1921G#F50	-65C TO +150C (Condition C)	1000	CYS	85	0 MK428113AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000	CYS	80	0 MK428516AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000	CYS	80	0 MK428638AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1907	90-1921G#F50	-65C TO +150C (Condition C)	1000	CYS	80	0 MK428639AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90-15540+071	-65C TO +150C (Condition C)	1000	CYS	80	0 MK429516AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90-15540+071	-65C TO +150C (Condition C)	1000	CYS	80	0 MK429497AAA-QAL

TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90-15560+07I	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429518AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1914	90-15560+07I	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429517AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1916	90-1990A+F50	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429316AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1916	90-1990A+F50	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429371AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1926	90-1904L#F50	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429966AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1926	90-1904L#F50	-65C TO +150C (Condition C)	1000	CYS	80	0	MK429999AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1926	90-1995L+F50	-65C TO +150C (Condition C)	500	CYS	80	0	MK430013AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1926	90-1995L+F50	-65C TO +150C (Condition C)	1000	CYS	80	0	MK430014AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1927	90-1554+07I	-65C TO +150C (Condition C)	1000	CYS	80	0	MK430032AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1929	90-15540+07I	-65C TO +150C (Condition C)	1000	CYS	80	0	MK430033AAA-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1944	90-1922L#F52 / DS1922L-F5#C02	-65C TO +150C (Condition C)	1000	CYS	79	0	MK431231AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1944	90-1922L#F52 / DS1922L-F5#C02	-65C TO +150C (Condition C)	1000	CYS	80	0	MK431232AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1944	90-1922L#F52 / DS1922L-F5#C02	-65C TO +150C (Condition C)	1000	CYS	79	0	MK431229AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1946	90-1922L#F52 / DS1922L-F5#C02	-65C TO +150C (Condition C)	1000	CYS	80	0	MK431415AAB-QAL
TEMP CYCLE, 5' RAMP, 10' DWELL	1946	90-1922L#F52 / DS1922L-F5#C02	-65C TO +150C (Condition C)	1000	CYS	80	0	MK431416AAB-QAL
Total:							0	

TEMPERATURE HUMIDITY BIAS

DESCRIPTION	DATE	TEST CODE VEHICLE	CONDITION	READPOINT	QUANTITY	FAILS	LOT NO.
BIASED MOISTURE		90-1990A+F50	85 C/85% R.H.	1000 HRS	85	0	MK428547AAA-QAL
BIASED MOISTURE		90-1990A+F50	85 C/85% R.H.	1000 HRS	85	0	MK428540AAA-QAL
BIASED MOISTURE	1907	90-1921G#F50	85 C/85% R.H.	1000 HRS	80	0	MK428516AAB-QAL
BIASED MOISTURE	1907	90-1921G#F50	85 C/85% R.H.	1000 HRS	80	0	MK428638AAB-QAL
BIASED MOISTURE	1907	90-1921G#F50	85 C/85% R.H.	1000 HRS	80	0	MK428639AAB-QAL

BIASED MOISTURE	1916	90-1990A+F50	85 C/85% R.H.	1000	HRS	80	0	MK429316AAB-QAL
BIASED MOISTURE	1916	90-1990A+F50	85 C/85% R.H.	1000	HRS	80	0	MK429371AAB-QAL
BIASED MOISTURE	1926	90-1904L#F50	85 C/85% R.H.	500	HRS	80	0	MK429966AAB-QAL
BIASED MOISTURE	1926	90-1904L#F50	130C, 85% R.H.	96	HRS	80	0	MK429999AAB-QAL
BIASED MOISTURE	1926	90-1995L+F50	85 C/85% R.H.	1000	HRS	80	0	MK430013AAA-QAL
BIASED MOISTURE	1927	90-1554+071	130C, 85% R.H.	96	HRS	80	0	MK430032AAA-QAL
BIASED MOISTURE	1929	90-15540+071	85 C/85% R.H.	500	HRS	80	0	MK430033AAA-QAL
BIASED MOISTURE	1944	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431230AAB-QAL
BIASED MOISTURE	1944	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431231AAB-QAL
BIASED MOISTURE	1944	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431232AAB-QAL
BIASED MOISTURE	1944	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431229AAB-QAL
BIASED MOISTURE	1946	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431415AAB-QAL
BIASED MOISTURE	1946	90-1922L#F52 / DS1922L-F5#C02	85 C/85% R.H.	1000	HRS	80	0	MK431416AAB-QAL

Total: 0

FAILURE RATE: MTTF (YRS): 15503 QUANTITY: 80 FAILS: 0 FITS: 7.4