

# Reliability Prediction Report

Part Number VTS4800(SINGLE)  
 Date 2003 11, 18  
 Environment GB  
 Ambient Temperature 40 degrees C

MIL-HDBK-217FN2 Part Stress  
 Failure Rate 23.834369  
 MTBF 41,956

Assembly Name	Part Number	Ref Des	Qty	Failure Rate	MTBF	Reliability
VTS4800(SINGLE)	VTS4800(SINGLE)	VTS4800(SINGLE)	1.00	23.834369	41,956	.9976

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
XPC855TZP80D4	CPU, PBGA357,Stepping D4	Integrated Circuit	C1: 0.060000 C2: 0.015045 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.051814	1.00	.05	19,299,735.29
CS-306	Crystal,32.768Khz, ±20ppm, SMD	Miscellaneous	Lambda B: 0.029007 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 1.000000 Model Failure Rate: 0.029007	1.00	.03	34,474,911.34
SX-6	Crystal,25.000Mhz, ±30ppm,SMD	Miscellaneous	Lambda B: 0.027256 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 1.000000 Model Failure Rate: 0.027256	1.00	.03	36,688,541.36
SCO-060	Oscillator,5.000Mhz, ±30ppm, DIP	Other	Model Failure Rate: 0.092600	1.00	.09	10,799,136.07

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
SCO-060	Oscillator,14.7456Mhz, ±30ppm, DIP	Other	Model Failure Rate: 0.092600	1.00	.09	10,799,136.07
K4S511632M-TC75	Dram Memory,SDRAM 64MB, TSOP54	Integrated Circuit	C1: 0.010000 C2: 0.010235 Lambda Cyc: 0.000000 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.016363	4.00	.07	15,278,118.58
1N4002	Diode,Rectifier Diode, 100V, 1A, AXIAL	Semiconductor	Lambda B: 0.025000 Pi C: 1.000000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi S: 0.420328 Pi T: 1.643920 Model Failure Rate: 0.041459	2.00	.08	12,060,067.51

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
AM29DL642G90MDI	Flash Memory,16MB, FBGA63	Integrated Circuit	C1: 0.010000 C2: 0.010235 Lambda Cyc: 0.000000 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.016363	2.00	.03	30,556,237.15
AT24C01A-10SC-2.7	EEprom Serial,1Kbit, SOIC8	Integrated Circuit	C1: 0.000850 C2: 0.002645 Lambda Cyc: 0.000000 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.003166	1.00	3.17e-003	315,823,558.64

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XC95288XL-10BG256C	IC-Cpld,3.3V CPLD, BGA256	Integrated Circuit	C1: 0.006800 C2: 0.015045 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.192167 Model Failure Rate: 0.017658	1.00	.02	56,631,084.64
LXT972ALC A4	IC-Custom,Ethernet Transceiver, LQFP64	Integrated Circuit	C1: 0.060000 C2: 0.024994 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.061763	1.00	.06	16,190,841.25
TL16C554APN	IC-Custom,QUAD UART, TQFP80	Integrated Circuit	C1: 0.060000 C2: 0.026685 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.306413 Model Failure Rate: 0.063455	12.00	.76	1,313,276.26

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MMDF3N02HD	IC-MOSFET,Dual N-Channel FET, SOIC8	Semiconductor	Lambda B: 0.012000 Pi A: 1.500000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi T: 3.793289 Model Failure Rate: 0.163870	2.00	.33	3,051,197.27
LM1085IS-3.3	IC-Regulator,Low Dropout Regulator 3A, TO-263	Integrated Circuit	C1: 0.010000 C2: 0.005593 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.991596 Model Failure Rate: 0.025424	1.00	.03	39,332,224.60
LTC1314CS	IC-Regulator,PCMCIA Switching Matrix, SOIC14	Integrated Circuit	C1: 0.010000 C2: 0.004841 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.336382 Model Failure Rate: 0.011569	1.00	.01	86,437,224.94

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
MAX704TCSA	IC-Reset,3.3V Voltage monitor,SOIC8	Integrated Circuit	C1: 0.010000 C2: 0.004841 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.357697 Model Failure Rate: 0.011995	1.00	.01	83,365,320.63
SP3243ECA	IC-RS232,RS-232, SSOP28	Integrated Circuit	C1: 0.010000 C2: 0.010235 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.336382 Model Failure Rate: 0.016963	49.00	.83	1,203,123.51
SM8578BV	IC-RTC,Real-time Clock, VSOP8	Integrated Circuit	C1: 0.010000 C2: 0.002645 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.336382 Model Failure Rate: 0.009373	1.00	9.37e-003	106,688,817.13

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74LCX541WM	IC-TTL,Octal Buffer, SOIC20	Integrated Circuit	C1: 0.002500 C2: 0.007117 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.211262 Model Failure Rate: 0.008173	7.00	.06	17,479,422.00
74LCX573WM	IC-TTL,Octal Latch, SOIC20	Integrated Circuit	C1: 0.002500 C2: 0.007117 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.211262 Model Failure Rate: 0.008173	4.00	.03	30,588,988.49
74LCX574WM	IC-TTL,Octal D-Type Flip-Flop, SOIC20	Integrated Circuit	C1: 0.002500 C2: 0.007117 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.211262 Model Failure Rate: 0.008173	6.00	.05	20,392,659.00

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
74LCX245WM	IC-TTL,Bidirectional Transceiver, SOIC20	Integrated Circuit	C1: 0.002500 C2: 0.007117 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.211262 Model Failure Rate: 0.008173	1.00	8.17e-003	122,355,953.97
SEC-0103	LED Diode,2X1 pin, Yellow, 3mm, Dip	Semiconductor	Lambda B: 0.000230 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi T: 1.566240 Model Failure Rate: 8.64565E-4	3.00	2.59e-003	385,550,481.37
SEC-0133	LED Diode,2X2 pin Array, Yellow, Yellow, 3mm, Dip	Semiconductor	Lambda B: 0.000230 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi T: 1.566240 Model Failure Rate: 8.64565E-4	2.00	1.73e-003	578,325,722.05

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SEO-0407	LED Diode,2X1 pin, Red, 5mm, Dip	Semiconductor	Lambda B: 0.000230 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi T: 1.566240 Model Failure Rate: 8.64565E-4	2.00	1.73e-003	578,325,722.05
HB2012	SMD Bead,2012, Bead, 600	Inductor	Lambda B: 0.000030 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 1.000000 Pi T: 1.227881 Model Failure Rate: 3.68364E-5	5.00	1.84e-004	5,429,408,751.85
1μF, 16V, 3216(A)	SMD Capacitor,Tantal	Capacitor	Lambda B: 0.000400 Pi C: 4.897788 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.323051 Pi V: 1.001015 Model Failure Rate: 0.007784	1.00	7.78e-003	128,469,947.55

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10µF, 6.3V, 3216(A)	SMD Capacitor,Tantal	Capacitor	Lambda B: 0.000400 Pi C: 4.897788 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.323051 Pi V: 1.001015 Model Failure Rate: 0.007784	10.- 00	.08	12,846,994.75
10µF, 10V, 3216(A)	SMD Capacitor,Tantal	Capacitor	Lambda B: 0.000400 Pi C: 4.897788 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.323051 Pi V: 1.001015 Model Failure Rate: 0.007784	4.00	.03	32,117,486.89

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22μF, 16V, 6032(C)	SMD Capacitor,Tantal	Capacitor	Lambda B: 0.000400 Pi C: 4.897788 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.323051 Pi V: 1.001015 Model Failure Rate: 0.007784	1.00	7.78e-003	128,469,947.55
47μF, 16V, 7343(D)	SMD Capacitor,Tantal	Capacitor	Lambda B: 0.000400 Pi C: 4.897788 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.323051 Pi V: 1.001015 Model Failure Rate: 0.007784	1.00	7.78e-003	128,469,947.55

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1608, 0.001 $\mu$ F, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	3.00	.05	20,953,264.23
1608, 0.01 $\mu$ F, 16V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	19.00	.30	3,308,410.14

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
1608, 0.1 $\mu$ F, 16V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	360.00	5.73	174,610.54
1608, 10pF, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	1.00	.02	62,859,792.68

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
1608, 15pF, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	2.00	.03	31,429,896.34
1608, 18pF, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	2.00	.03	31,429,896.34

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
1608, 33pF, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	343.00	5.46	183,264.70
1608, 270pF, 50V	SMD Capacitor	Capacitor	Lambda B: 0.002000 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.015908	2.00	.03	31,429,896.34

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1N4733	SMD Diode,Zener Diode, 5.1V, 1W, SMD	Semiconductor	Lambda B: 0.002000 Pi C: 1.000000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi S: 1.000000 Pi T: 4.468766 Model Failure Rate: 0.021450	1.00	.02	46,619,878.61
1N5819	SMD Diode,Schottky Diode, 40V, 1A, SMD	Semiconductor	Lambda B: 0.003000 Pi C: 1.000000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi S: 0.420328 Pi T: 1.643920 Model Failure Rate: 0.004975	2.00	9.95e-003	100,500,562.62
SL42	SMD Diode,Schottky Diode, 20V, 4A, SMD	Semiconductor	Lambda B: 0.003000 Pi C: 1.000000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi S: 0.420328 Pi T: 1.643920 Model Failure Rate: 0.004975	2.00	9.95e-003	100,500,562.62

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
SMDA15C-8	TVS Diode, Surge, ESD, EFT	Integrated Circuit	C1: 0.010000 C2: 0.002645 Pi E: 0.500000 Pi FY: 4.000000 Pi L: 1.000000 Pi Q: 2.000000 Pi T: 0.336382 Model Failure Rate: 0.009373	49.00	.46	2,177,322.80
0.001 $\mu$ F, 2KV, DIP 10MM	Capacitor Surge	Capacitor	Lambda B: 0.000990 Pi C: 1.064370 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 3.000000 Pi SR: 1.000000 Pi T: 1.921670 Pi V: 1.296296 Model Failure Rate: 0.007875	6.00	.05	21,164,913.36

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3216, 0 , 5%, 1/8W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	2.00	.02	41,313,076.50
1608, 0 , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	345.00	4.18	239,496.10
1608, 10kΩ, 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	98.00	1.19	843,124.01

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1608, 1k $\Omega$ , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	38.00	.46	2,174,372.45
1608, 1.2k $\Omega$ , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	1.00	.01	82,626,152.99
1608, 22.1k $\Omega$ , 1%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	1.00	.01	82,626,152.99

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1608, 22 , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	15.00	.18	5,508,410.20
1608, 220 , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	11.00	.13	7,511,468.45
1608, 2.7k $\Omega$ , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	4.00	.05	20,656,538.25

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1608, 330 , 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	2.00	.02	41,313,076.50
1608, 3.3kΩ, 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	16.00	.19	5,164,134.56
1608, 4.7kΩ, 5%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	12.00	.15	6,885,512.75

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1608, 49.9 , 1%, 1/16W	SMD Resistor	Resistor	Lambda B: 0.003700 Pi E: 1.000000 Pi FY: 4.000000 Pi P: 0.763130 Pi Q: 3.000000 Pi S: 1.230610 Pi T: 1.161023 Model Failure Rate: 0.012103	11.00	.13	7,511,468.45
HA-003A	SMD Transformer,1:1, 10/100 BASE-T, 16P	Inductor	Lambda B: 0.022000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 1.000000 Pi T: 1.227881 Model Failure Rate: 0.027013	1.00	.03	37,018,696.04
CR2032 SOCKET	Socket-Battery,1x2pin	Other	Model Failure Rate: 0.011600	1.00	.01	86,206,896.55
DIP 2.50MM	Socket-Jumper,1x3pin,Male,22-0- 4-1031	Other	Model Failure Rate: 0.009319	1.00	9.32e-003	107,302,000.00
DIP 2.50MM	Socket-Jack,1x4pin,Male,22-04-1- 041	Other	Model Failure Rate: 0.015300	2.00	.03	32,679,738.56

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Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
DIP 2.54MM	Socket-Jumper,2x5pin,Male	Other	Model Failure Rate: 0.009319	1.00	9.32e-003	107,302,000.00
DIP 2.54MM	Socket-Jumper,1x6pin,Male	Other	Model Failure Rate: 0.009319	1.00	9.32e-003	107,302,000.00
61126-050CAH	Socket-PCMCIA,3.3V PCMCIA Single Socket	Other	Model Failure Rate: 0.032000	1.00	.03	31,250,000.00
STP-1236A	Switch Push,Tact Switch, DIP, Right Angle	Other	Model Failure Rate: 0.003200	1.00	3.20e-003	312,500,000.00
XRJD-S-21-8-8-4	RJ-45 Conn,RJ45, 2X1 Array, shield, EMI Flip	Other	Model Failure Rate: 0.010000	1.00	.01	100,000,000.00
5808-57G122	RJ-45 Conn,RJ45, 2x8 Array, shield, EMI Flip	Other	Model Failure Rate: 0.010000	3.00	.03	33,333,333.33

# Reliability Prediction Report

Part Number VTS4800(SINGLE)  
 Date 2003 11, 18  
 Environment GB  
 Ambient Temperature 40 degrees C

MIL-HDBK-217FN2 Part Stress  
 Failure Rate 23.834369  
 MTBF 41,956

Part Number	Description	Category	Pi Factors	Qty	Failure Rate	MTBF
KRC101S	Transistor,NPN, SOT23	Semiconductor	Lambda B: 0.000740 Pi A: 1.500000 Pi E: 1.000000 Pi FY: 4.000000 Pi Q: 2.400000 Pi R: 0.773782 Pi S: 0.212016 Pi T: 1.466456 Model Failure Rate: 6.40901E-4	1.00	6.41e-004	1,560,302,749.94
VTS4800 REV. 0.2	PCB,8Layers, 389mm x 243mm	Other	Model Failure Rate: 0.658600	1.00	.66	1,518,372.30
SMPS	Single Power	Other		1.00	1.26	794,000.00

## Percentage Summary

<u>Part Type</u>	<u>Quantity</u>	<u>% Quantity</u>	<u>Failure Rate</u>	<u>% Failure Rate</u>
IC, Logic	18.00	1.20	0.147112	0.62
IC, PAL, PLA	1.00	0.07	0.017658	0.07
IC, Memory	7.00	0.47	0.101346	0.43
IC, Microproc	14.00	0.94	0.875032	3.67
IC, Linear	102.00	6.83	1.348811	5.66
Trans, Bipolar	1.00	0.07	0.000641	0.00
Trans, FET	2.00	0.13	0.327740	1.38
Diode	7.00	0.47	0.124269	0.52
Opto-elec	7.00	0.47	0.006052	0.03
Res, Fixed	556.00	37.22	6.729104	28.23
Cap, Fixed	755.00	50.54	11.824538	49.61
Ind, Transformer	1.00	0.07	0.027013	0.11
Ind, Coil	5.00	0.33	0.000184	0.00
Crystal	2.00	0.13	0.056263	0.24
User	1.00	0.07	1.259446	5.28
NPRD Part	15.00	1.00	0.989158	4.15

## First Year Dropout

<u>Month</u>	<u>Failure Rate</u>	<u>Expected # of Failures</u>	<u>Avg. Cumulative Failure Rate</u>
1	169.711591	0.000496	678.845642
2	100.911116	0.000589	403.643952
3	74.451005	0.000652	297.803602
4	60.002109	0.000701	240.008072
5	50.755604	0.000741	203.022093
6	44.268832	0.000776	177.075034
7	39.435557	0.000806	157.741953
8	35.677467	0.000833	142.709613
9	32.661011	0.000858	130.643803
10	30.179463	0.000881	120.717623
11	28.097455	0.000902	112.389604
12	26.322405	0.000922	105.289412