

EPC SPACE Qual Flow Equivalent MIL-PRF-19500

Operation	Test	Test Methods Per Mil STD 750&883	Sample Size
Pre-Assembly	Probe Testing	EPC SPACE Internal	100%
	Visual inspection		100%
Post-Assembly	Die Shear		5
	X-Ray		5
SCREENING	SerIALIZATION		100%
	Electricals	3411,3413,3421,3404	100%
	Temp Cycling	TM1051	100%
	Constant Acceleration	TM2006	100%
	PIND	TM2052	100%
	Initial Electricals (Read and Record)	3411,3413,3421,3404	100%
	HTGB	TM1042 Condition B	100%
	Interim Electricals (Read and Record)	3411,3413,3421,3404	100%
	HTRB	TM1042 Condition A 240 Hours	100%
	Final Electricals (Read and Record)	3411,3413,3421,3404	100%
	Final Electricals (High and Low Temperatures)	3411,3413,3421,3404	100%
	Dynamic RDSO	EPC SPACE Internal	100%
	OOF	EPC SPACE Internal	100%
	X-RAY	TM2076	100%
	Tinning		100%
	Hermetic Seal, Fine & Gross Leak	TM1071	100%
Final Electricals	3411,3413,3421,3404	100%	
Group A Inspection (Conformance)	A-2 DC Static Tests at 25°C	3411,3413,3421,3404	116
	A-3 High & Low Temp DC Static Tests	3411,3413,3421,3404	116
	A-7 Gate Charges & Capacitance	TM3471 Condition B, TM3473	45
Group B Inspection (Conformance)	B-1 Physical Dimensions		22
	B-2 Solderability	TM2026	15
	B-2 Resistance to Solvents	TM1032	3
	B-3 Pre-Electricals	3411,3413,3421,3404	22
	Temperature cycling	TM1051 100 Cycles	
	Hermetic Seal, Fine Leak	TM1071	
	Electricals Measurements	3411,3413,3421,3404	
	Die Pull	TM2017	
	B-4 Pre-Electricals	3411,3413,3421,3404	22
	Intermittent Op Life, 2000 cycles	TM1036	
	Hermetic Seal, Fine & gross Leak	TM1071	
	Electricals Measurements	3411,3413,3421,3404	
	Die Pull	TM2017/2031	
	B-5 Pre-Electricals	3411,3413,3421,3405	22
	Accelerated Steady State Gate-Stress	TM1042 Condition B	
	Electricals Measurements	3411,3413,3421,3404	
	Accelerated Steady State Reverse Bias	TM1042 Condition A	
	Electricals Measurements	3411,3413,3421,3404	
Multiple Reflow	20 Sn/Pb reflow cycles	15	
Die Pull	2017/2031		

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Operation	Test	Test Methods Per Mil STD 750&883	Sample Size
Group C Inspection (Conformance)	C-1-Physical dimensions		15
	C-2 Pre-Electricals	3411,3413,3421,3404	22
	Temperature Shock	TM1051	
	Terminal Strength	TM2036	
	Hermetic Seal, Fine & gross Leak	TM1071	
	Moisture Resistance	TM1021	
	Electricals Measurements	3411,3413,3421,3404	
	C-3 Pre-Electricals	3411,3413,3421,3404	
	Shock	TM2016	
	Vibration, Variable Frequency	TM2046	
	Acceleration	TM2006	
	Electricals Measurements	3411,3413,3421,3404	6
	Die pull	TM2017	
	C-4 Salt Atmosphere (Corrosion)	TM1041	
	C-6 Intermittent Op Life, 4000 cycles (Cont B4)	TM1036	
	Hermetic Seal, Fine & gross Leak	TM1071	
	Die Pull	TM2017	
C-7 Internal Water Vapor	TM2018	5	
Group D Inspection (Conformance)	TID	TM1019	15
	SEE	TM1080	5
Group E Inspection (Qualification Inspection)	E-1 Pre-Electricals	3411,3413,3421,3404	45
	Temperature cycling - 500 Cycles	TM1051	
	Electricals Measurements	3411,3413,3421,3404	
	Die Pull	TM2017	6
	Cross Section		5
	E-2 Steady-State Life - 1000 hours	TM1042 Condition B	45
	E-2 Steady-State Life - 1000 hours	TM1042 Condition A	45
	Electricals Measurements	3411,3413,3421,3404	45
	E-5 Barometric Pressure	TM1001	3
	E-6 ESD	TM1020	11
	E-7 Resistance to soldering heat	TM2031 for FDA Solder Wave Sn/Pb reflow	3
	E8 Switching	Hard Switching in a buck converter	6