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MIL-STD-981

Standard Screening and Qualification Plan for
 Microelectronic Devices, Class B and S



Screening Requirements for Microelectronic Devices (100%)

Description	Test Method and Conditions	Class B & S
Subgroup 1 (100%)		
Visual Inspection	100%	X
Review Serialization		X
Electrcial Test	100% Read and Record @ 25°C	X
Thermal Shock	MIL-STD-202, Method 107, Condition B-1. 25 Cycles, -65°C to 125°C, 5 minutes at extremes	X
Burn In	96 hours @ 100°C. 23dBm RF input power	X
Electrical Test	100% Read and Record @ 25°C & 100°C	X
PDA	At 25°C calculate PDA<=5%	X
Induced Voltage	NA all terminals DC Short to ground	X
Dielectric Withstanding Voltage	MIL-STD-202, Method 301, Performed at STP	X
Insulation Resistance	MIL-STD-202 Method 302, 2 minutes. Measure instulation at 100Vdc. Insulation Resistance > 10,000 meg ohms or <10Na	X
PIND Test	MIL STD 883; Method 2020	X
Radiographic	MIL-STD-202 Method 209	X
QA Visual Inspection	100%	X
Final Review (lot Rejection criteria)		X
CSI Required?		X
Subgroup 2 (100%)		
Visual Inspection	100%	X
Dimensional Check	See Table V for Qty	X
Final Review (lot Rejection criteria)		X
CSI Required?		
Ship or Transfer to FGI		X

**Qualification Requirements for Microelectronic Devices – Class B
(Optional test if required by customer)**

Description	Test Method and Conditions
Group B Subgroup 1 (3 units from Group A)	
Electrical Test	100% Read and Record @ 25°C
Visual Inspection	100%
Resistance Soldering Heat	MIL-STD-202, Method 210
Dielectric Withstanding Voltage	MIL-STD-202, Method 301, Performed at STP
Vibration	MIL-STD-202, Method 204 Condition G
Shock	MIL-STD-202, Method 213 Condition H
Dielectric Withstanding Voltage	MIL-STD-202, Method 301, Performed at STP
Insulation Resistance	MIL-STD-202 Method 302, 2 minutes. Measure insulation at 100Vdc. Insulation Resistance > 10,000 meg ohms or <10Na
Electrical Test	100% Read and Record @ 25°C & 100°C
Steady State Life	MIL-STD-202, Method 108, Condition D. 1,000 hours @ 100°C
Dielectric Withstanding Voltage	MIL-STD-202, Method 301, Performed at STP
Insulation Resistance	MIL-STD-202 Method 302, 2 minutes. Measure insulation at 100Vdc. Insulation Resistance > 10,000 meg ohms or <10Na
Electrical Test	100% Read and Record @ 25°C & 100°C
Visual and Mechanical	External Examination 100%
Solderability	MIL-STD-202 Method 208
Group B Subgroup 2 (1 unit from Group A)	
DPA	

Qualification Requirements for Microelectronic Devices – Class S

Description	Test Method and Conditions
Group B Subgroup 1 (2 units from Group A)	
Electrical Test	100% Read and Record @ 25°C
Resistance Soldering Heat	MIL-STD-202, Method 210
Vibration	MIL-STD-202, Method 204 Condition G
Shock	MIL-STD-202, Method 213 Condition H
Moisture Resistance	MIL-STD-203, Method 106
Dielectric Withstanding Voltage	MIL-STD-202, Method 301 Performed at STP
Insulation Resistance	MIL-STD-202, Method 302, Apply 100V then DC Test to package
Electrical Test	100% Read and Record @ 25°C and 100°C
Group B Subgroup 2 (2 units from Group A)	
Solderability	MIL-STD-202 Method 208
Electrical Test and Mount Units	100% Read and Record @ 25°C and 100°C
Steady State Life	MIL-STD-202, Method 108, Condition D. 1,000 hours @100°C
Insulation Resistance	MIL-STD-202, Method 302, Apply 100V then DC Test to package
Dielectric Withstanding Voltage	MIL-STD-202, Method 301 Performed at STP
Visual and Mechanical Examination	External Examination 100%
Electrical Test	100% Read and Record 25°C and 100°C
Group B Subgroup 3 (1 unit from Group A)	
DPA	