

BFX-AT100 (T99X171.00) LED Issue Reliability Test Plan

No.	Item	Test Condition	Pass Criteria	Q'ty	Day	Test Location	Reference Standard
1	Continuation of temperature cycle	1. Operating in high and low temperature environment at 50/-5°C 2. 50°C with 1°C/min, Dwell 12 hrs ; -5°C with 1°C/min, Dwell 12 Hrs, total 5 cycles	1. LED color can't change to yellow & purple after the test. 2. No functional failures both during and after the test 3. No performance degradation during the functional test 4. No visual damage to the products after inspection, such as peeling, discoloration, etc.	3	6	HC	IEC 60068-2-30
2	High Temperature & Humidity Test (Op)	Power on, Operation, Ta = 50°C ,Humi.= 90%R.H. for 120 hours	1. LED color can't change to yellow & purple after the test. 2. No functional failures both during and after the test 3. No performance degradation during the functional test 4. No visual damage to the products after inspection, such as peeling, discoloration, etc.	3	6	HC	IEC 60068-2-78
3	Thermal Shock	Power off , non-OP, Ta= -20C (30min) ~ 70C (30min) 120 cycles, Transfer time : 5 min	1. LED color can't change to yellow & purple after the test. 2. No functional failures both during and after the test 3. No performance degradation during the functional test 4. No visual damage to the products after inspection, such as peeling, discoloration, etc.	3	6	HC	MIL-810
4	MTBF Demonstration	1. System temperature (Tn): 25°C 2. Test environment (Ta) Temp.: 50°C 3. Activation Energy(EA): 0.7 4. Number of units in test: 10 5. Confidence level: 90% 6. Test day: 21 days 7. MTBF: 17520 Hours (2 years)	1. LED color can't change to yellow & purple after the test. 2. No functional failures of the test 3. No performance degradation during the functional test 4. No visual damage to the products during inspection, such as shrinkage, peeling, or discoloration, etc.	10	21	HC	Mil-Std 781D