

Reliability Performance & Critique

Qualification Test of Replacement InGan Blue Die Source for Chipled (PCN : V14-001-48475413-0A)

Item	Test Type	Condition	SS	Test criteria	Test Result
1	Room Temperature Operating Life Test (RTOL)	25°C, 5mA (ET @ 20mA)	100	a) No catastrophic failure and no parametric failure b) I_v degradation < 50% c) V_f shift < 5%	Passed 500hrs
2	High Temperature Operating Life Test (HTOL)	85°C, 5mA (ET @ 20mA)	100		Passed 500hrs
3	High Humidity High Temperature Operating Life Test (WHTOL)	60°C, 90%RH, 10mA (ET @ 20mA)	100		Passed 500hrs
4	Low Temperature Operating Life Test (LTOL)	-40°C, 20mA (ET @ 20mA)	100		Passed 500hrs
5	Temperature cycle (TMCL)	-40/85°C, 15 5 15 (ET @ 20mA)	100		Passed 100 cycles
6	Temperature cycle (TMCL)	-40/85°C, 15 5 15 (Hot Light up test @ 100°C)	300	No open/short LEDs	Passed 100 cycles