Environmental Test

TEST UNIT AND EQUIPMENT:

GU128x64D-K610A8 serial number 619082 was tested between 6-Mar and 8-Mar, 2007.

Weiss WKL 100 Environmental Chamber serial 2200499200 calibrated 11-May-2006. Shaffner NSG435 ESD simulator PA0138 uncalibrated. Agilent E4402B spectrum analyser PA0193 calibrated 7-Nov-2006.

OPERATING CONDITION:

VCC = 5V, GND = 0V Module powered in Self Test mode

TEMPERATURE RANGE:

The module was operated at low and high temperature in the Weiss-Technik chamber after stabilising for specified time at each temperature. Visual quality of display was inspected with power supply of 4.75V and 5.25V.

Temp	Duration	Observation			
-40C	2 hours	Off, storage			
-40C	1 hour	Operating, OK			
+90C	15hrs	Off, storage			
+90C	1hr	Operating, OK			

ELECTRO-STATIC DISCHARGE (Method IEC 6100-4-2):

The module was powered up in self-test mode on the test table. There it was exposed to contact and air discharges applied to the ribbon cable across the module face, the horizontal conductive plane under the module, and the vertical conductive plane.

Observation	Contact Discharge	Air Discharge		
Lowest voltage discharged	5kV	8kV		
Temporary spurious ON/OFF of pixels	7kV	None		
Module reset or lock-up	None	None		
Permanent damage	None	None		
Highest voltage discharged	9kV	16kV		

CONDUCTED RF EMISSION TEST:

The 50-ohm input of the Agilent E4402B spectrum analyser was AC-coupled to the 5V supply of the module. While the module performed self-test, the spectra shown overleaf were taken:

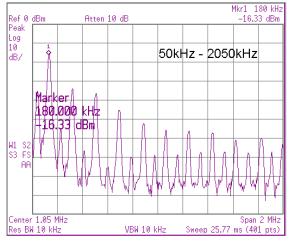
Start	Stop	Spectra	Significant UUT peaks			
50 kHz	2050 kHz	UUT	-16dBm @180kHz			
1 MHz	10 MHz	UUT	-52dBm @4.67MHz			
8 MHz	88 MHz	UUT	-37dBm @48MHz			
80 MHz	280 MHz	UUT, background	-50dBm @161MHz			
0.2 GHz	3 GHz	UUT	None			

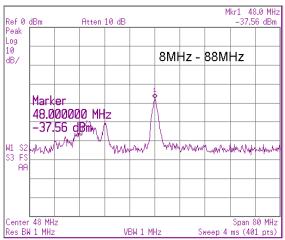
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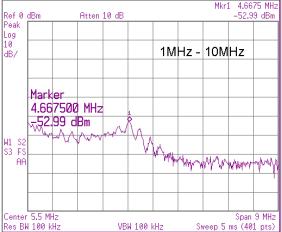
Environmental Test

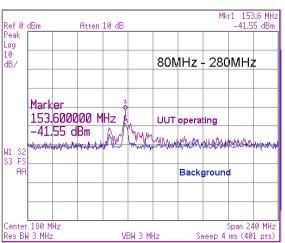
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Ref 0	dBm Atten 1			Mkr1 2.923 10 dB -53.65 d						
Peak Log 10 dB/						0.2	GHz	- 30	€Hz	
W1 S2	-52	3000	Rm		nyfrass	Aynmat	white	sham M	hund	 1
S3 FS AA										
Center Res Bk	1.6 GH			VI	BW 3 MI		Sweep		Span 2 ms (40	





Most peaks above 140MHz are local interference (ship-to-shore). The Unit-under-test may be responsible for the -50dBm peak at 161MHz

CONTACT

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