Environmental Test

TEST UNIT AND EQUIPMENT:

GU140x16G-7806A 747980 was tested between 14-Feb and 15-Feb, 2008.

Weiss WKL 100 Environmental Chamber serial 2200299200 calibrated 14-Aug-2007. Shaffner NSG435 ESD simulator PA0138 uncalibrated. Agilent E4402B spectrum analyser PA0193 calibrated 9-Nov-2007.

OPERATING CONDITION:

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

TEMPERATURE RANGE:

The module was brought to temperature in the Weiss-Technik chamber in the sequence, and for the durations shown. Module was powered on in self-test mode, and visual quality of display observed.

Temp	Duration	Observation				
-40C	2 hours	Off, storage				
-10C	1 hour	Operating, OK				
+85C	17 hours	Off, storage				
+65C	1 hour	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	3kV	8kV		
Temporary spurious ON/OFF of pixels	None	None		
Module reset or lock-uo	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:

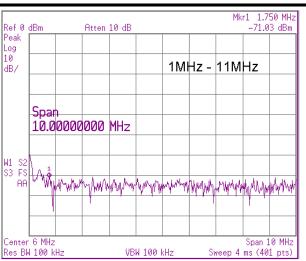
Start	Stop	Spectra	Significant UUT peaks			
50 kHz	2050 kHz	UUT	-35dBm @200kHz			
1 MHz	11 MHz	UUT	None			
8 MHz	88 MHz	UUT	-44dBm @32.2MHz			
80 MHz	280 MHz	UUT, background	None			
0.2 GHz	3 GHz	UUT	None			

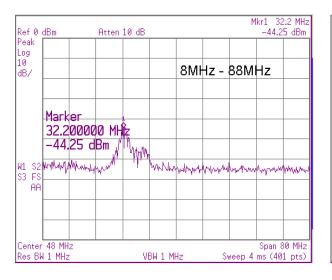
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NORITAKE ITRON VFD MODULES

Environmental Test

Mkr1 200 kHz Ref Ø dBm Atten 10 dB -35.1 dBm Peak Log 10 dB/ 50kHz - 2050kHz Marker 200.000 kHz -35.1 dBm W1 S2 S3 FS ÂĤ WWWW WIMMW WW Low Me WV. WW ΛŴ M Center 1.05 MHz Span 2 MHz Sweep 25.77 ms (401 pts) Res BW 10 kHz VBW 10 kHz





Ref Ø	dBm Atte		Atten	en 10 dB		Mkr1 1.229 GHz -58.42 dBm				
Peak Log 10										
dB/						0.2	GHz	- 30	θHz	
	Spar	<u>ا</u>								
	2.80	0000	000	GHz						
	hanner	wayhada	ndah kara	nond Ran	man	unnum	mappin	nproder	whether	nmhhinn
W1 S2 S3 FS										
ÂÂ										
Center Res Bk	1.6 GH 1 3 MHz			VI	3W 3 MF	łz	Sweep	4.667	Span 2 ms (40	

Ref 0 dBm Atten 10 dB Peak Log 10 80MHz - 280MHz dB/ W1 Sź S3 FS AA Center 180 MHz Span 200 MHz Res BW 1 MHz VBW 1 MHz Sweep 4 ms (401 pts)

CONTACT

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