

ANTENNA SPECIFICATION		DATA	2005-09-21	REV.	IR
MODEL	WLL-800MHz(Dark Gray)	TYPE	SLEEVE DIPOLE ANT ³	PAGE	17/21

7.4 Reliability test data

7.4.1 Reliability test report(1/2)



Reliability Test Report (1/2)				Prepared by	Checked By	Reviewed By	Approved By																																													
				9/9	/	/	9/9																																													
Model	LSP-400R	Date	05.09.1~9.9	Measured by	S.W.JUNG																																															
Sample(n)	40			Product dept	ACE / Q.A																																															
<p>1. Test reason : new approval objection</p> <p>2. Test Result</p> <table border="1"> <thead> <tr> <th>NO.</th> <th>Test item</th> <th>spec</th> <th>results</th> <th>Sample(n)</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>Demision</td> <td>Drawing spec</td> <td>OK</td> <td>3</td> </tr> <tr> <td>2</td> <td>V.S.W.R</td> <td>824 ~ 894MHz, less than 2.5</td> <td>OK</td> <td>30</td> </tr> <tr> <td>3</td> <td>Visual inspection</td> <td>visual deterioration shall occur (black spot,alien, gap)</td> <td>OK</td> <td>30</td> </tr> <tr> <td>4</td> <td>torque test</td> <td>3kgf (After the test, no visual deterioration shall occur and the part of the cover and the frame shall remain mechanically bonded)</td> <td>OK</td> <td>3</td> </tr> <tr> <td>5</td> <td>traction test</td> <td>7kgf (After the test, no visual deterioration shall occur) Joint + connector= bonding strength</td> <td>OK</td> <td>3</td> </tr> <tr> <td>6</td> <td>Drop test</td> <td>SET(1200g) 1.5m, 1time After the test, the original shape shall be possible to restore</td> <td>OK</td> <td>3</td> </tr> <tr> <td>7</td> <td>Bending test</td> <td>Bending force: more than 1kgf vibrational rate of BENDING force must have less than 50%.</td> <td>OK</td> <td>3</td> </tr> <tr> <td>8</td> <td>Environmental Demands</td> <td>-Operation Temperature Test -Temperature Change Test -High Humidity Test -thermal shock test -Corrosion test</td> <td>OK</td> <td>3</td> </tr> </tbody> </table> <p>3. Conclusion : GOOD</p>								NO.	Test item	spec	results	Sample(n)	1	Demision	Drawing spec	OK	3	2	V.S.W.R	824 ~ 894MHz, less than 2.5	OK	30	3	Visual inspection	visual deterioration shall occur (black spot,alien, gap)	OK	30	4	torque test	3kgf (After the test, no visual deterioration shall occur and the part of the cover and the frame shall remain mechanically bonded)	OK	3	5	traction test	7kgf (After the test, no visual deterioration shall occur) Joint + connector= bonding strength	OK	3	6	Drop test	SET(1200g) 1.5m, 1time After the test, the original shape shall be possible to restore	OK	3	7	Bending test	Bending force: more than 1kgf vibrational rate of BENDING force must have less than 50%.	OK	3	8	Environmental Demands	-Operation Temperature Test -Temperature Change Test -High Humidity Test -thermal shock test -Corrosion test	OK	3
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7.4.1 Reliability test report(2/2)



Reliability Test Report (2/2)	담 당	검 토	확 인	승 인																																																
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7.4.2 DIMENSION CHECK DATA

	DIMENSION											Remark
	1	2	3	4	5	6	7	8	9	10	11	
	208.0±2.0	164.0±2.0	61.0±0.3	16.0±0.3	33.6±0.5	φ14.0±0.3	φ15.0±0.3	10.7±0.3	φ13.0±0.3	φ12.0±0.3	φ5.0±0.3	
1	206.65	162.63	60.82	15.87	33.40	13.95	14.95	10.75	12.78	11.79	5.02	
2	206.61	162.62	60.90	15.86	33.42	13.96	14.96	10.75	12.77	11.80	5.01	
3	206.60	162.63	60.90	15.88	33.42	13.96	14.95	10.74	12.77	11.81	5.01	



LSP-400R Antenna ass'y Dimension check data

Date:2005.09.09

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7.4.3 VSWR CHECK DATA(1/2)



LSP-400R Antenna ass'y V.S.W.R check data

Date:2005.09.09

	Visual inspection	Electrical (VSWR)		Remark
		0 DEG	90 DEG	
		824-894MHz	824-894MHz	
		LESS THAN 2.5	LESS THAN 2.1	
1	OK	1.74	1.52	
2	OK	1.69	1.49	
3	OK	1.80	1.60	
4	OK	1.82	1.53	
5	OK	1.69	1.55	
6	OK	1.74	1.51	
7	OK	1.77	1.42	
8	OK	1.80	1.60	
9	OK	1.62	1.62	
10	OK	1.65	1.49	
11	OK	1.82	1.51	
12	OK	1.71	1.50	
13	OK	1.70	1.42	
14	OK	1.69	1.49	
15	OK	1.82	1.61	
16	OK	1.80	1.41	
17	OK	1.65	1.48	
18	OK	1.66	1.58	
19	OK	1.69	1.55	
20	OK	1.71	1.60	
21	OK	1.80	1.42	
22	OK	1.74	1.49	
23	OK	1.69	1.58	
24	OK	1.65	1.52	
25	OK	1.74	1.56	
26	OK	1.79	1.51	
27	OK	1.72	1.47	
28	OK	1.63	1.46	
29	OK	1.80	1.61	
30	OK	1.66	1.55	
USL	-	2.5	2.0	
LSL	-			
Xbar	-	1.726	1.522	
Max	-	1.82	1.62	
Min	-	1.62	1.41	
R	-	0.20	0.21	
StDev	-	0.063	0.062	
Cpu	-	4.10	2.58	
Cpk	-	4.10	2.58	

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7.4.3 VSWR CHECK DATA(2/2)(After Environmental test)



LSP-400R Antenna ass'y V.S.W.R check data (Environmental)

Date:2005.09.09

	Visual inspection	Electrical (VSWR)				TEST ITEM
		Before		After		
		0 DEG	90 DEG	0 DEG	90 DEG	
		824-894MHz	824-894MHz	824-894MHz	824-894MHz	
		LESS THAN 2.5	LESS THAN 2.1	LESS THAN 2.5	LESS THAN 2.1	
1	OK	1.74	1.52	1.70	1.50	High Temperature Test
2	OK	1.69	1.49	1.66	1.51	
3	OK	1.80	1.60	1.72	1.58	
4	OK	1.82	1.53	1.77	1.51	Low Temperature Test
5	OK	1.69	1.55	1.60	1.50	
6	OK	1.74	1.51	1.71	1.46	
7	OK	1.77	1.42	1.70	1.49	High Humidity Test
8	OK	1.80	1.60	1.72	1.51	
9	OK	1.62	1.62	1.69	1.58	
10	OK	1.65	1.49	1.61	1.44	Corrosion Test
11	OK	1.82	1.51	1.80	1.43	
12	OK	1.71	1.50	1.79	1.41	
13	OK	1.70	1.42	1.63	1.49	Operation Temperature Test
14	OK	1.69	1.49	1.60	1.51	
15	OK	1.82	1.61	1.74	1.58	
16	OK	1.80	1.41	1.82	1.46	Thermal Shock Test
17	OK	1.65	1.48	1.62	1.49	
18	OK	1.66	1.58	1.64	1.55	

Quality Assurance Dept.