06/09/03 **High Frequency Measurement**
Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: VIEN TRAN
Project #: 03I1880-1
Company: Alvarion
EUT Descrip.: Alvarion 902-928MHz DTS Device
EUT M/N: TBD
Test Target: FCC15.247
Mode Oper: Constant Tx_Low ch

Test Equipment:

EMCO Horn 1-18GHz	Pre-amplifer 1-26GHz	Spectrum Analyzer	Horn > 18GHz
T60; S/N: 2238 @3m	Miteq NSP2600-44	8593EM Analyzer	

Hi Frequency Cables

☐ (2 ft) ☐ (2 ~ 3 ft) ☑ (4 ~ 6 ft) ☑ (12 ft)

Peak Measurements:
1 MHz Resolution Bandwidth
1MHz Video Bandwidth

Average Measurements:
1 MHz Resolution Bandwidth
10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
0.904				1.0	0.8	-1.5		1.0			#N/A	#N/A			V
1.808	9.8	52.5	41.1	27.9	1.5	-36.4	0.0	1.0	46.5	35.1	74.0	54.0	-27.5	-18.9	V, 2nd Har
2.712	9.8	44.7	31.0	30.1	2.3	-36.3	0.0	1.0	41.9	28.2	74.0	54.0	-32.1	-25.8	V
3.616	9.8	57.4	40.7	31.9	2.9	-36.2	0.0	1.0	56.9	40.2	74.0	54.0	-17.1	-13.8	V
4.520	9.8	44.6	30.5	32.9	3.3	-36.1	0.0	1.0	45.7	31.6	74.0	54.0	-28.3	-22.4	V
5.424	9.8	43.0	30.9	33.8	3.7	-36.1	0.0	1.0	45.3	33.2	74.0	54.0	-28.7	-20.8	V
6.328	9.8	44.7	32.0	34.9	4.1	-36.3	0.0	1.0	48.3	35.6	74.0	54.0	-25.7	-18.4	V
7.232	9.8	43.9	31.8	36.1	4.4	-36.3	0.0	1.0	49.1	37.0	74.0	54.0	-24.9	-17.0	V
8.136	9.8	42.6	30.0	37.3	4.7	-35.8	0.0	1.0	49.8	37.2	74.0	54.0	-24.2	-16.8	V
9.040	9.8	42.0	30.4	38.8	5.1	-35.3	0.0	1.0	51.5	40.0	74.0	54.0	-22.5	-14.0	V
1.808	9.8	49.0	39.5	27.9	1.5	-36.4	0.0	1.0	43.0	33.5	74.0	54.0	-31.0	-20.5	H, 2nd har.
2.712	9.8	44.5	41.4	30.1	2.3	-36.3	0.0	1.0	41.7	38.6	74.0	54.0	-32.3	-15.4	H
3.616	9.8	47.2	34.2	31.9	2.9	-36.2	0.0	1.0	46.7	33.7	74.0	54.0	-27.3	-20.3	H
4.520	9.8	43.4	30.2	32.9	3.3	-36.1	0.0	1.0	44.5	31.3	74.0	54.0	-29.5	-22.7	H
5.424	9.8	43.8	30.0	33.8	3.7	-36.1	0.0	1.0	46.1	32.3	74.0	54.0	-27.9	-21.7	H
6.328	9.8	43.4	31.4	34.9	4.1	-36.3	0.0	1.0	47.0	35.0	74.0	54.0	-27.0	-19.0	H
7.232	9.8	44.0	31.1	36.1	4.4	-36.3	0.0	1.0	49.2	36.3	74.0	54.0	-24.8	-17.7	H
8.136	9.8	41.5	29.8	37.3	4.7	-35.8	0.0	1.0	48.7	37.0	74.0	54.0	-25.3	-17.0	H
9.040	9.8	41.9	29.9	38.8	5.1	-35.3	0.0	1.0	51.4	39.4	74.0	54.0	-22.6	-14.6	H

f	Measurement Frequency	Amp	Preamp Gain	Avg Lim	Average Field Strength Limit
Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
AF	Antenna Factor	Peak	Calculated Peak Field Strength	Pk Mar	Margin vs. Peak Limit
CL	Cable Loss	HPF	High Pass Filter		

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Average Measurements:
1 MHz Resolution Bandwidth
10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
0.926				6.2	0.8	-9.5		1.0			#N/A	#N/A			V
1.852	9.8	66.7	49.4	28.2	1.6	-36.4	0.0	1.0	61.0	43.7	74.0	54.0	-13.0	-10.3	V, 2nd Har
2.778	9.8	46.5	32.6	30.2	2.4	-36.3	0.0	1.0	43.9	29.9	74.0	54.0	-30.1	-24.1	V
3.704	9.8	54.8	39.3	32.0	2.9	-36.2	0.0	1.0	54.6	39.1	74.0	54.0	-19.4	-14.9	V
4.630	9.8	45.1	31.9	33.0	3.3	-36.1	0.0	1.0	46.3	33.1	74.0	54.0	-27.7	-20.9	V
5.556	9.8	44.6	31.7	33.9	3.7	-36.2	0.0	1.0	47.1	34.2	74.0	54.0	-26.9	-19.8	V
6.482	9.8	44.2	32.2	35.1	4.1	-36.3	0.0	1.0	48.1	36.0	74.0	54.0	-25.9	-18.0	V
7.408	9.8	45.1	32.2	36.4	4.5	-36.2	0.0	1.0	50.7	37.7	74.0	54.0	-23.3	-16.3	V
8.344	9.8	43.4	30.7	37.7	4.8	-35.7	0.0	1.0	51.2	38.5	74.0	54.0	-22.8	-15.5	V
9.260	9.8	43.3	31.1	38.7	5.1	-35.3	0.0	1.0	52.8	40.6	74.0	54.0	-21.2	-13.4	V
1.852	9.8	51.8	41.4	28.2	1.6	-36.4	0.0	1.0	46.1	35.6	74.0	54.0	-27.9	-18.4	H, 2nd har.
2.778	9.8	45.6	32.3	30.2	2.4	-36.3	0.0	1.0	42.9	29.6	74.0	54.0	-31.1	-24.4	H
3.704	9.8	49.8	33.6	32.0	2.9	-36.2	0.0	1.0	49.6	33.3	74.0	54.0	-24.4	-20.7	H
4.630	9.8	44.8	31.6	33.0	3.3	-36.1	0.0	1.0	46.0	32.8	74.0	54.0	-28.0	-21.2	H
5.556	9.8	43.6	31.6	33.9	3.7	-36.2	0.0	1.0	46.1	34.1	74.0	54.0	-27.9	-19.9	H
6.482	9.8	44.4	32.1	35.1	4.1	-36.3	0.0	1.0	48.3	36.0	74.0	54.0	-25.7	-18.0	H
7.408	9.8	44.2	32.2	36.4	4.5	-36.2	0.0	1.0	49.8	37.8	74.0	54.0	-24.2	-16.2	H
8.344	9.8	43.4	30.7	37.7	4.8	-35.7	0.0	1.0	51.1	38.4	74.0	54.0	-22.9	-15.6	H
9.260	9.8	42.7	31.0	38.7	5.1	-35.3	0.0	1.0	52.1	40.5	74.0	54.0	-21.9	-13.5	H
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Dist	Distance to Antenna	D Corr	Distance Correct to 3 meters	Pk Lim	Peak Field Strength Limit
Read	Analyzer Reading	Avg	Average Field Strength @ 3 m	Avg Mar	Margin vs. Average Limit
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CL	Cable Loss	HPF	High Pass Filter		

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Average Measurements:
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10Hz Video Bandwidth

f GHz	Dist feet	Read Pk dBuV	Read Avg. dBuV	AF dB/m	CL dB	Amp dB	D Corr dB	HPF	Peak dBuV/m	Avg dBuV/m	Pk Lim dBuV/m	Avg Lim dBuV/m	Pk Mar dB	Avg Mar dB	Notes
0.915				3.6	0.8	-5.5		1.0			#N/A	#N/A			V
1.830	9.8	53.5	42.1	28.1	1.6	-36.4	0.0	1.0	47.7	36.2	74.0	54.0	-26.3	-17.8	V, 2nd Har
2.745	9.8	45.5	32.0	30.2	2.4	-36.3	0.0	1.0	42.8	29.2	74.0	54.0	-31.2	-24.8	V
3.660	9.8	58.1	41.6	31.9	2.9	-36.2	0.0	1.0	57.7	41.2	74.0	54.0	-16.3	-12.8	V
4.575	9.8	45.6	31.5	33.0	3.3	-36.1	0.0	1.0	46.7	32.7	74.0	54.0	-27.3	-21.3	V
5.490	9.8	43.8	31.7	33.8	3.7	-36.2	0.0	1.0	46.2	34.1	74.0	54.0	-27.8	-19.9	V
6.405	9.8	45.5	32.6	35.0	4.1	-36.3	0.0	1.0	49.2	36.3	74.0	54.0	-24.8	-17.7	V
7.320	9.8	44.8	32.5	36.2	4.4	-36.3	0.0	1.0	50.1	37.8	74.0	54.0	-23.9	-16.2	V
8.235	9.8	43.6	30.5	37.5	4.8	-35.7	0.0	1.0	51.1	38.0	74.0	54.0	-22.9	-16.0	V
9.150	9.8	42.0	30.4	38.8	5.1	-35.3	0.0	1.0	51.5	39.9	74.0	54.0	-22.5	-14.1	V
1.830	9.8	49.7	40.4	28.1	1.6	-36.4	0.0	1.0	43.9	34.6	74.0	54.0	-30.1	-19.4	H, 2nd har.
2.745	9.8	45.5	32.4	30.2	2.4	-36.3	0.0	1.0	42.7	29.6	74.0	54.0	-31.3	-24.4	H
3.660	9.8	48.0	35.0	31.9	2.9	-36.2	0.0	1.0	47.6	34.6	74.0	54.0	-26.4	-19.4	H
4.575	9.8	44.1	31.5	33.0	3.3	-36.1	0.0	1.0	45.3	32.6	74.0	54.0	-28.7	-21.4	H
5.490	9.8	44.9	31.7	33.8	3.7	-36.2	0.0	1.0	47.3	34.0	74.0	54.0	-26.7	-20.0	H
6.405	9.8	44.5	32.5	35.0	4.1	-36.3	0.0	1.0	48.3	36.3	74.0	54.0	-25.7	-17.7	H
7.320	9.8	45.0	32.3	36.2	4.4	-36.3	0.0	1.0	50.4	37.7	74.0	54.0	-23.6	-16.3	H
8.235	9.8	42.4	30.4	37.5	4.8	-35.7	0.0	1.0	49.9	37.9	74.0	54.0	-24.1	-16.1	H
9.150	9.8	42.8	30.3	38.8	5.1	-35.3	0.0	1.0	52.3	39.8	74.0	54.0	-21.7	-14.2	H
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CL	Cable Loss	HPF	High Pass Filter		