

06/11/03 High Frequency Measurement
 Compliance Certification Services, Morgan Hill Open Field Site

Test Engr: Thanh Nguyen
 Project #: TBD
 Company: ALVARION
 EUT Descip.: 902-928 MHz DTS (FCC ID LKT-900-IF)
 EUT M/N: 900 IF
 Test Target: FCC Part 15.247
 Mode Oper: 8FSK Continuous.

Test Equipment:

| | | | |
|--------------------------|------------------------------|--------------------------|------------------------|
| EMCO Horn 1-18GHz | Pre-amplifier 1-26GHz | Spectrum Analyzer | Horn > 18GHz |
| 172; S/N: 6739 @3m | Miteq NSP2600-44 | 8593EM Analyzer | |

Hi Frequency Cables

| | | | |
|---------------------------------|--|-----------------------------------|---|
| <input type="checkbox"/> (2 ft) | <input checked="" type="checkbox"/> (2~3 ft) | <input type="checkbox"/> (4~6 ft) | <input checked="" type="checkbox"/> (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 | 9.8 | Fundamental | | | | | | | | | | | | | V |
| 1.808 | 9.8 | 43.2 | 31.2 | 27.3 | 1.5 | -36.4 | 0.0 | 1.0 | 36.6 | 24.6 | 74.0 | 54.0 | -37.4 | -29.4 | Noise Floor |
| 2.712 | 9.8 | 41.7 | 30.4 | 30.1 | 2.2 | -36.3 | 0.0 | 1.0 | 38.6 | 27.3 | 74.0 | 54.0 | -35.4 | -26.7 | Noise Floor |
| 3.616 | 9.8 | 40.6 | 29.6 | 31.9 | 2.7 | -36.2 | 0.0 | 1.0 | 40.0 | 29.0 | 74.0 | 54.0 | -34.0 | -25.0 | Noise Floor |
| 4.520 | 9.8 | 41.1 | 29.1 | 33.0 | 3.0 | -36.1 | 0.0 | 1.0 | 42.0 | 30.0 | 74.0 | 54.0 | -32.0 | -24.0 | Noise Floor |
| 5.420 | 9.8 | 40.4 | 29.2 | 33.9 | 3.4 | -36.1 | 0.0 | 1.0 | 42.4 | 31.2 | 74.0 | 54.0 | -31.6 | -22.8 | Noise Floor |
| 6.328 | 9.8 | 41.5 | 30.1 | 34.8 | 3.7 | -36.3 | 0.0 | 1.0 | 44.7 | 33.3 | 74.0 | 54.0 | -29.3 | -20.7 | Noise Floor |
| 7.232 | 9.8 | 42.9 | 31.4 | 35.7 | 4.1 | -36.3 | 0.0 | 1.0 | 47.4 | 35.8 | 74.0 | 54.0 | -26.6 | -18.2 | Noise Floor |
| 8.136 | 9.8 | 40.8 | 29.9 | 37.1 | 4.4 | -35.8 | 0.0 | 1.0 | 47.5 | 36.5 | 74.0 | 54.0 | -26.5 | -17.5 | Noise Floor |
| 1.808 | 9.8 | 42.4 | 31.0 | 27.3 | 1.5 | -36.4 | 0.0 | 1.0 | 35.8 | 24.3 | 74.0 | 54.0 | -38.2 | -29.7 | H/Noise Floor |
| No more Spurious Emissions was detected up to 10th Harmonics Horizontal Antenna | | | | | | | | | | | | | | | |
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| 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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 Mode Oper: 8FSK Continuous.

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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 |
|---|-----------|--------------|----------------|---------|-------|--------|-----------|-----|-------------|------------|---------------|----------------|-----------|------------|-------------|
| 0.915 | 9.8 | Fundamental | | | | | | | | | | | | | V |
| 1.830 | 9.8 | 42.3 | 30.9 | 27.4 | 1.6 | -36.4 | 0.0 | 1.0 | 35.8 | 24.4 | 74.0 | 54.0 | -38.2 | -29.6 | Noise Floor |
| No more Spurious Emissions was detected up to 10th Harmonics for both Vertical&Horizontal Antenna | | | | | | | | | | | | | | | |
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|------|-----------------------|--------|--------------------------------|---------|------------------------------|
| 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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(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 |
|--|-----------------------|--------------|----------------|---------|-------|--------|--------------------------------|-----|-------------|------------|---------------|----------------|------------------------------|------------|-------------|
| 0.924 | 9.8 | Fundamental | | | | | | | | | | | | | V |
| 1.852 | 9.8 | 42.5 | 31.3 | 27.5 | 1.6 | -36.4 | 0.0 | 1.0 | 36.1 | 24.9 | 74.0 | 54.0 | -37.9 | -29.1 | Noise Floor |
| 2.778 | 9.8 | 42.4 | 30.4 | 30.3 | 2.2 | -36.3 | 0.0 | 1.0 | 39.6 | 27.6 | 74.0 | 54.0 | -34.4 | -26.4 | Noise Floor |
| No Spurious Emissions was detected up to 10th Harmonics for both Vertical&Horizontal Antenna | | | | | | | | | | | | | | | |
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| 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 | | |
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| AF | Antenna Factor | | | | | Peak | Calculated Peak Field Strength | | | | | Pk Mar | Margin vs. Peak Limit | | |
| CL | Cable Loss | | | | | HPF | High Pass Filter | | | | | | | | |