

low

|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|----------------------------------------------------------------|----------------------------|-----------------|------------|----------|--------------------|---------------------------|-----------|----------------|---------------|-----------------------------------|-------------------|----------------|---------------|----------|
|                                                                | FCC Measurement            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
| Compliance Certification Services, Morgan Hill Open Field Site |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
| Customer: TOM--Aperto                                          |                            |                 |            |          | 12/02/02           |                           |           |                |               |                                   |                   |                |               |          |
| Ant#3--SU/Integrated                                           |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                | Cable length               |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            | 12.0            |            | feet     |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                | Distance to Antenna        |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            | 3.3             |            | feet     |                    |                           |           |                |               |                                   |                   |                |               |          |
| Average Measurements:                                          |                            |                 |            |          | Peak Measurements: |                           |           |                |               |                                   |                   |                |               |          |
|                                                                | 1 MHz Resolution Bandwidth |                 |            |          |                    | 1MHz Resolution Bandwidth |           |                |               |                                   |                   |                |               |          |
|                                                                | 10Hz Video Bandwidth       |                 |            |          |                    | 1MHz Video Bandwidth      |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                | Low Channel:               |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                | 5728.00                    |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
| f<br>GHz                                                       | Peak R.<br>dBuV            | Avg. R.<br>dBuV | AF<br>dB/m | CL<br>dB | Amp<br>dB          | D Corr<br>dB              | HPF<br>dB | Peak<br>dBuV/m | Avg<br>dBuV/m | Pk Lim<br>dBuV/m                  | Avg Lim<br>dBuV/m | Peak Mar<br>dB | Avg Mar<br>dB | Notes    |
| 1.000                                                          | 40.5                       | 31.0            | 23.1       | 1.9      | 0.0                | -9.5                      | 0.0       | 56.0           | 46.5          | 74.0                              | 54.0              | -18.0          | -7.5          | V&H , NF |
| 5.000                                                          | 35.0                       | 24.0            | 32.9       | 4.7      | 0.0                | -9.5                      | 0.0       | 63.1           | 52.1          | 74.0                              | 54.0              | -10.9          | -1.9          | V&H, NF  |
| 10.000                                                         | 44.0                       | 32.0            | 37.9       | 7.0      | -36.0              | -9.5                      | 0.0       | 43.4           | 31.4          | 74.0                              | 54.0              | -30.6          | -22.6         | V&H NF   |
| 15.000                                                         | 45.7                       | 33.0            | 39.9       | 8.9      | -36.3              | -9.5                      | 0.0       | 48.7           | 36.0          | 74.0                              | 54.0              | -25.3          | -18.0         | V&H NF   |
| 18.000                                                         | 45.7                       | 33.0            | 43.9       | 10.3     | -37.0              | -9.5                      | 1.0       | 54.4           | 41.7          | 74.0                              | 54.0              | -19.6          | -12.3         | V&H NF   |
| 22.000                                                         | 46.0                       | 33.0            | 46.6       | 11.9     | -39.0              | -9.5                      | 1.0       | 57.0           | 44.0          | 74.0                              | 54.0              | -17.0          | -10.0         | V&H NF   |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
|                                                                |                            |                 |            |          |                    |                           |           |                |               |                                   |                   |                |               |          |
| f                                                              | Measurement Frequency      |                 |            |          |                    |                           |           | HPF            |               | High Pass filter                  |                   |                |               |          |
| Peak R.                                                        | Analyzer Peak Reading      |                 |            |          |                    |                           |           | Peak           |               | Calculated peak field Strength    |                   |                |               |          |
| Avg. R.                                                        | Analyzer Avg. Reading      |                 |            |          |                    |                           |           | Avg            |               | Calculated average field Strength |                   |                |               |          |
| AF                                                             | Antenna Factor             |                 |            |          |                    |                           |           | Pk Lim         |               | Peak Field Strength Limit         |                   |                |               |          |
| CL                                                             | Cable Loss                 |                 |            |          |                    |                           |           | Avg Lim        |               | Average Field Strength Limit      |                   |                |               |          |
| Amp                                                            | Pre amp gain               |                 |            |          |                    |                           |           | Pk Mar         |               | Margin vs. Peak Limit             |                   |                |               |          |
| D Corr                                                         | Discorrections to 3 meter  |                 |            |          |                    |                           |           | Avg Mar        |               | Margin vs. Average Limit          |                   |                |               |          |