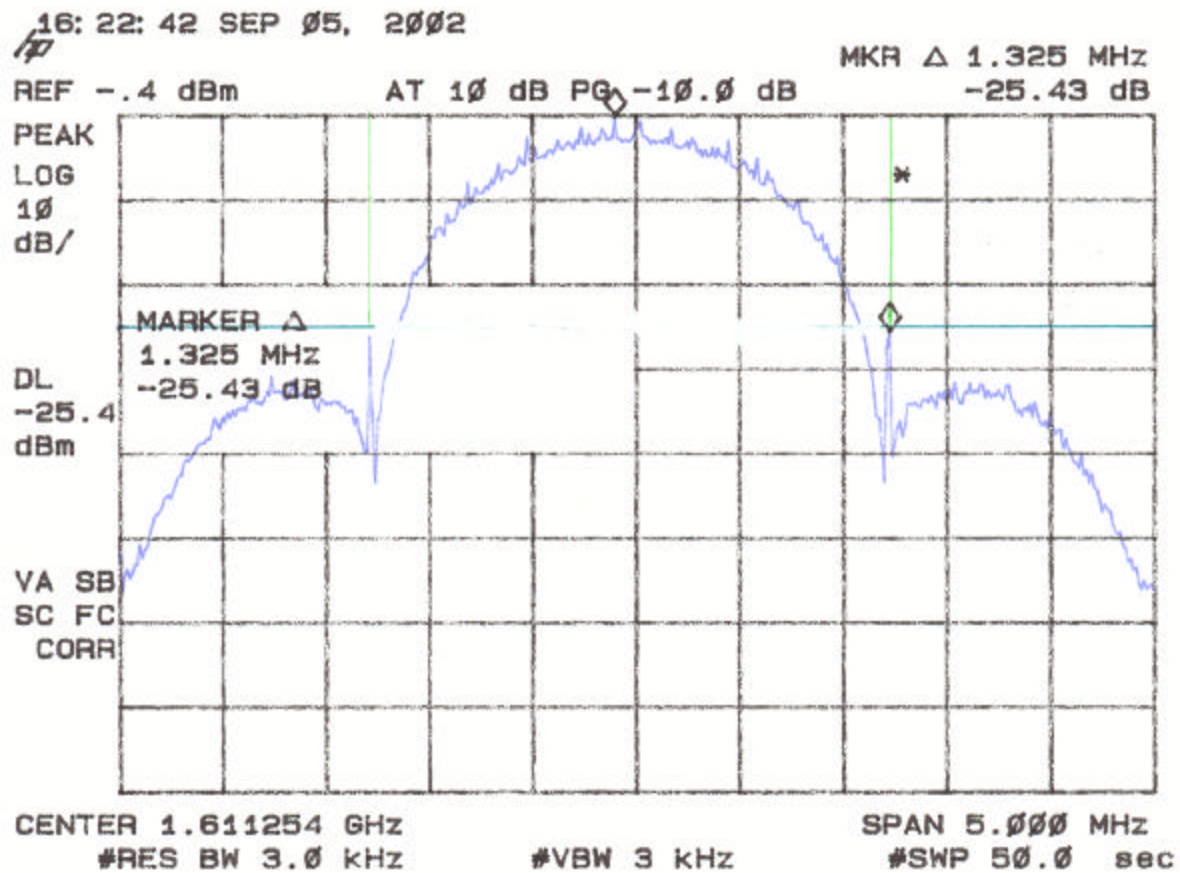


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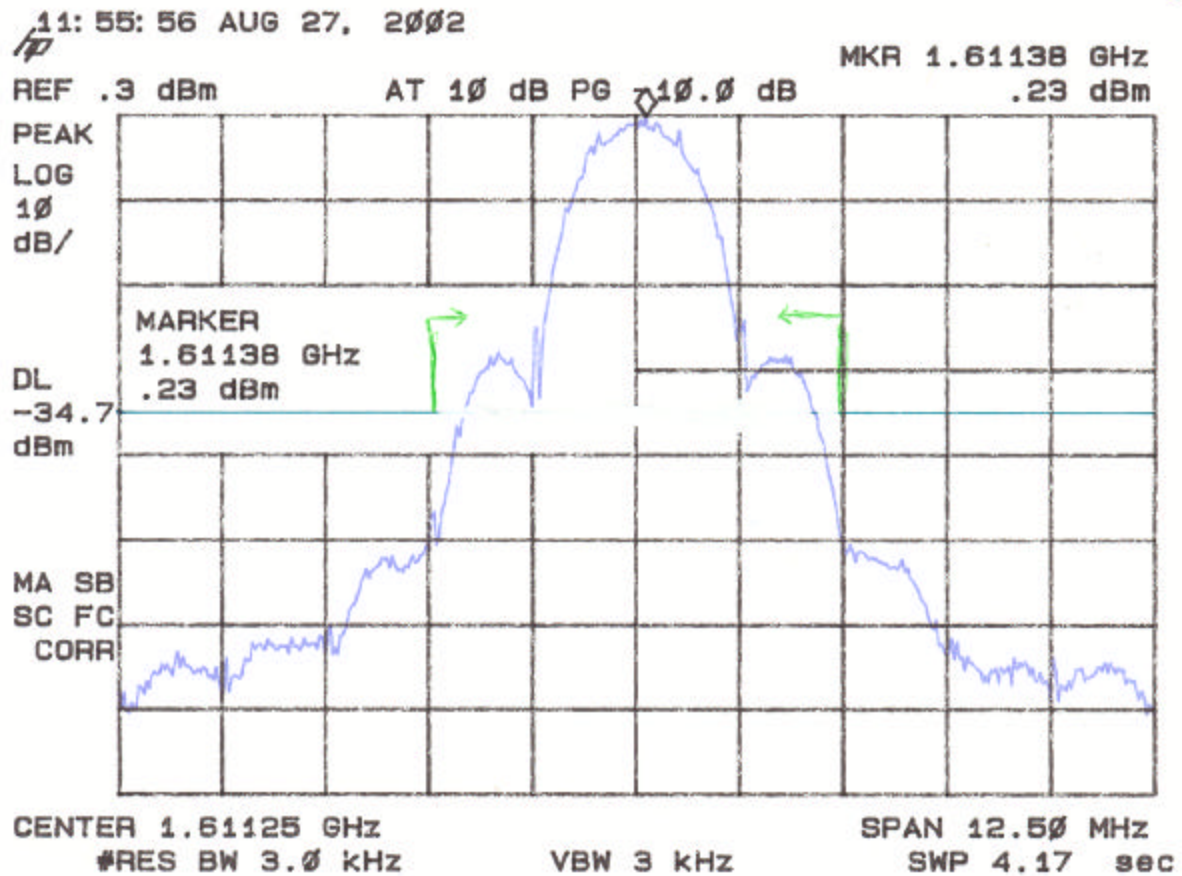
Figure 5a.
Occupied Bandwidth 50 - 100% From Edge of Authorized Bandwidth - Low



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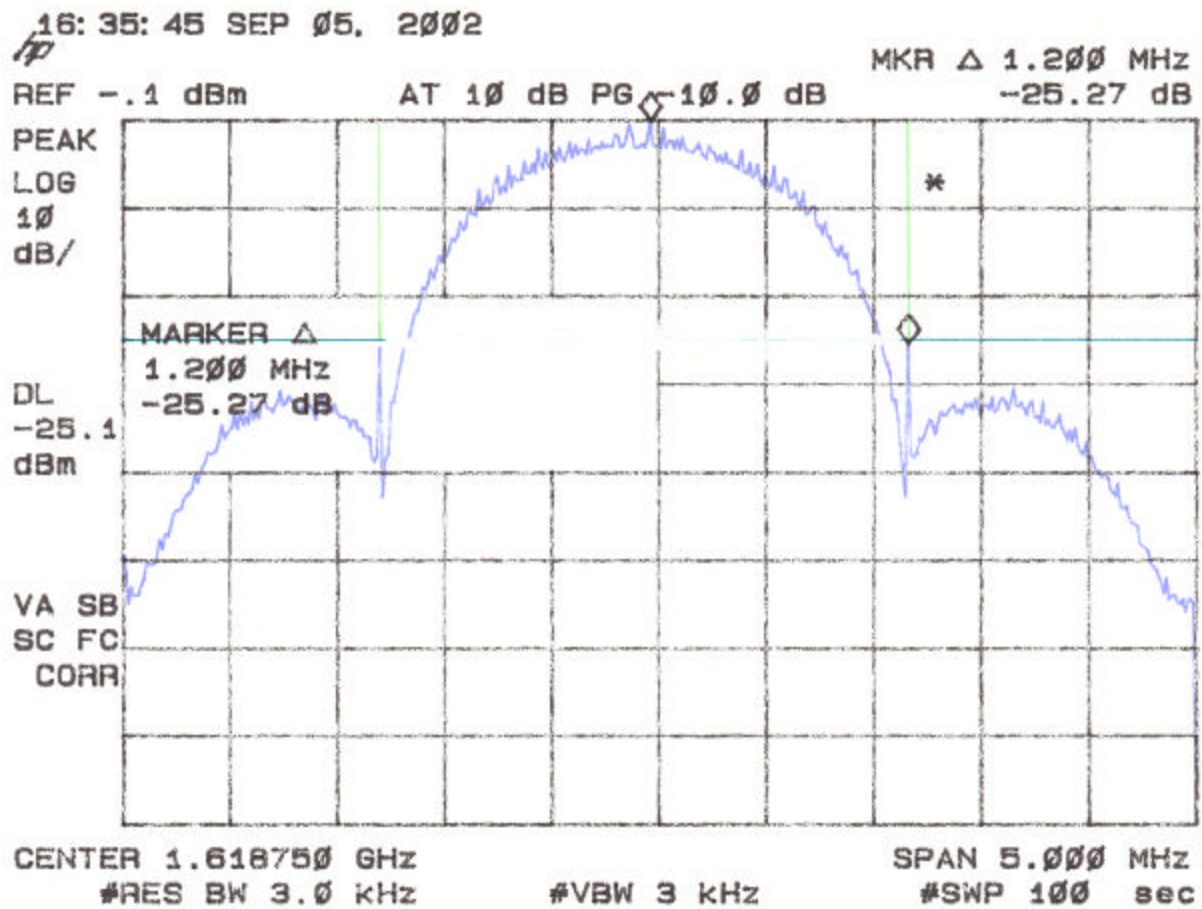
Figure 5b.
Occupied Bandwidth > 100% From Edge of Authorized Bandwidth - Low



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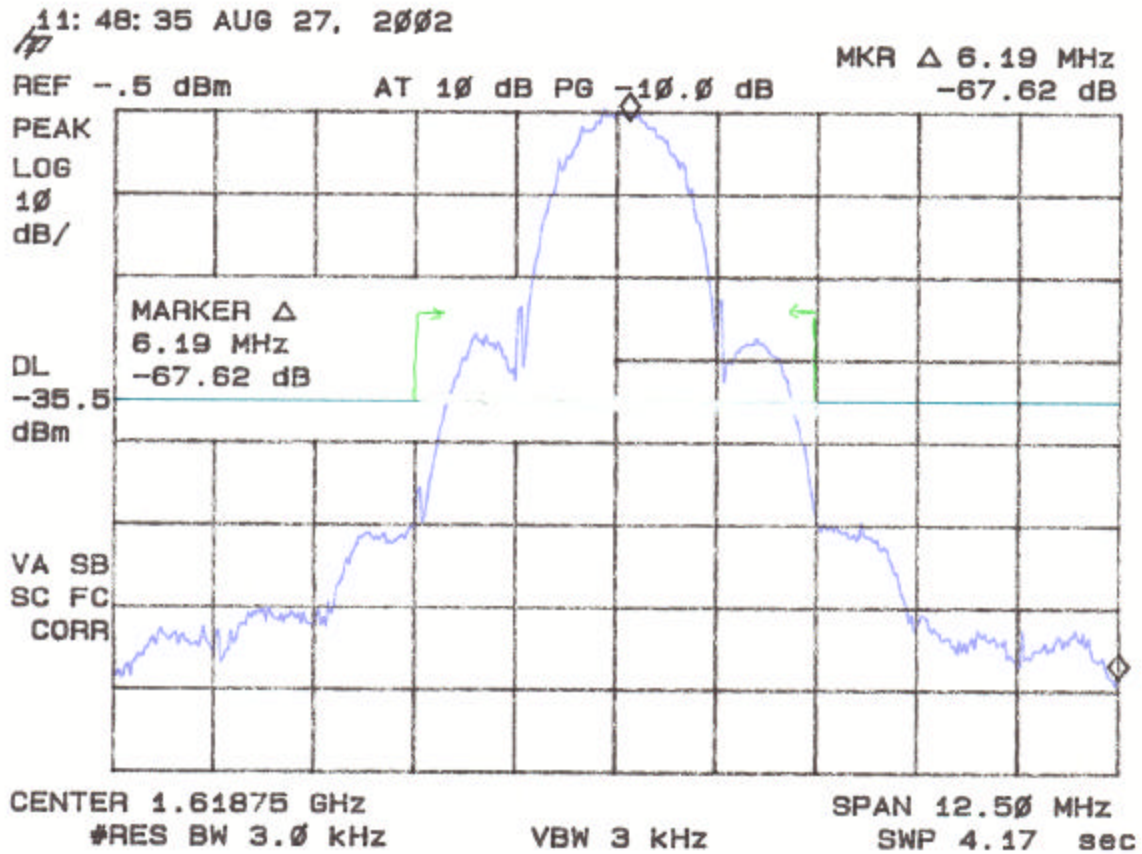
Figure 5c.
Occupied Bandwidth 50 - 100% From Edge of Authorized Bandwidth - High



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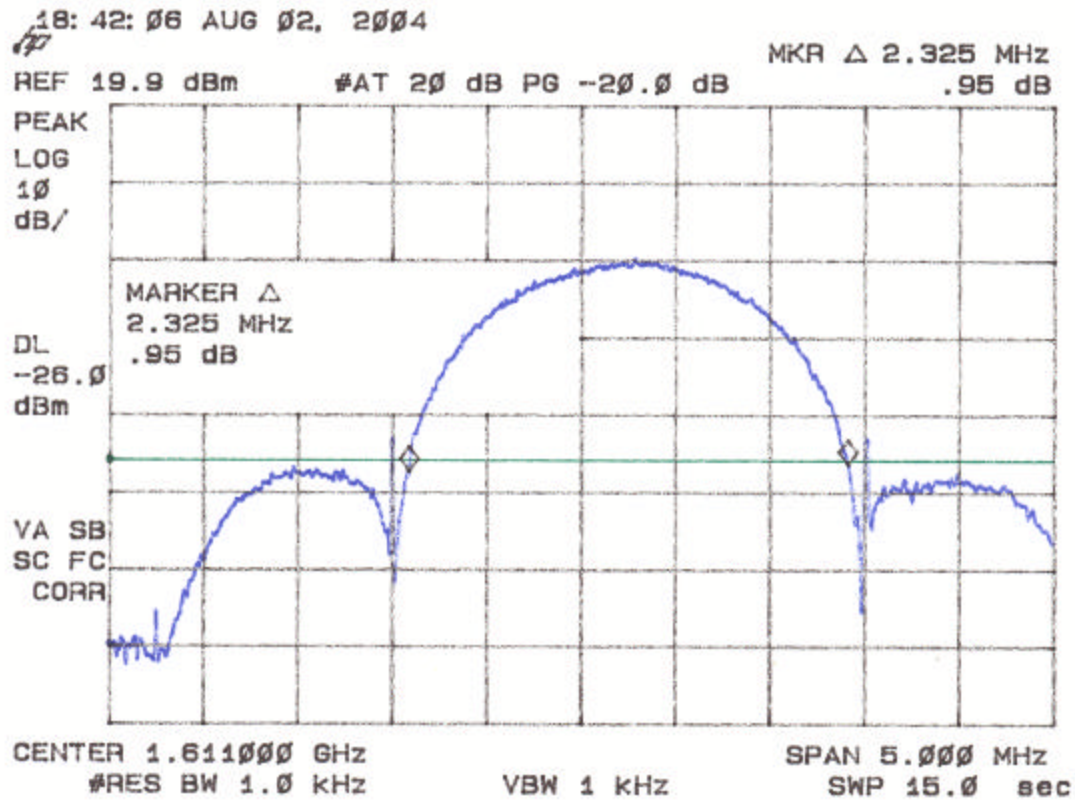
Figure 5d.
Occupied Bandwidth > 100% From Edge of Authorized Bandwidth - High



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Figure 5e.
99% Occupied Bandwidth
for 26 dB removal from peak signal



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2.9 Spurious Emissions at Antenna Terminals (FCC Section 2.1051)

Spurious emissions appearing at the antenna terminals were measured with a spectrum analyzer by connecting the spectrum analyzer directly via a short cable to the antenna output terminals or across the antenna leads on the PCB as specified by the manufacturer. Results are shown in Figures 6a - 6p.

Protection of the radio-navigation-satellite service. Mobile earth stations operating in the 1610-1626.5 MHz band shall limit out-of-band emissions in the 1574.397-1576.443 MHz band so as not to exceed an e.i.r.p. density level of -70 dB (W/MHz) averaged over any 20 ms period. The e.i.r.p. of any discrete spurious emission (i.e., bandwidth less than 600 Hz) in the 1574.397-1576.443 MHz band shall not exceed -80 dBW.

FCC Minimum Standard (FCC Section 25.202(f))

For out-of-band emissions for frequencies removed from the midpoint of the assigned frequency segment by more than 250% of the authorized bandwidth (2.5 MHz), at least

$$43 + 10 \log (P_{\text{Watts}}) \text{ attenuation below the mean power of the transmitter.}$$

For Lowest Channel = $43 + 10 \log (0.153) = 34.8 \text{ dB}$

For Highest Channel = $43 + 10 \log (0.159) = 35.0 \text{ dB}$

The following plots show that all emissions were at least 50.4 dB below the fundamental.

Note:

A 10 kHz RBW was used instead. This was deemed to be comparable to 4 kHz RBW.

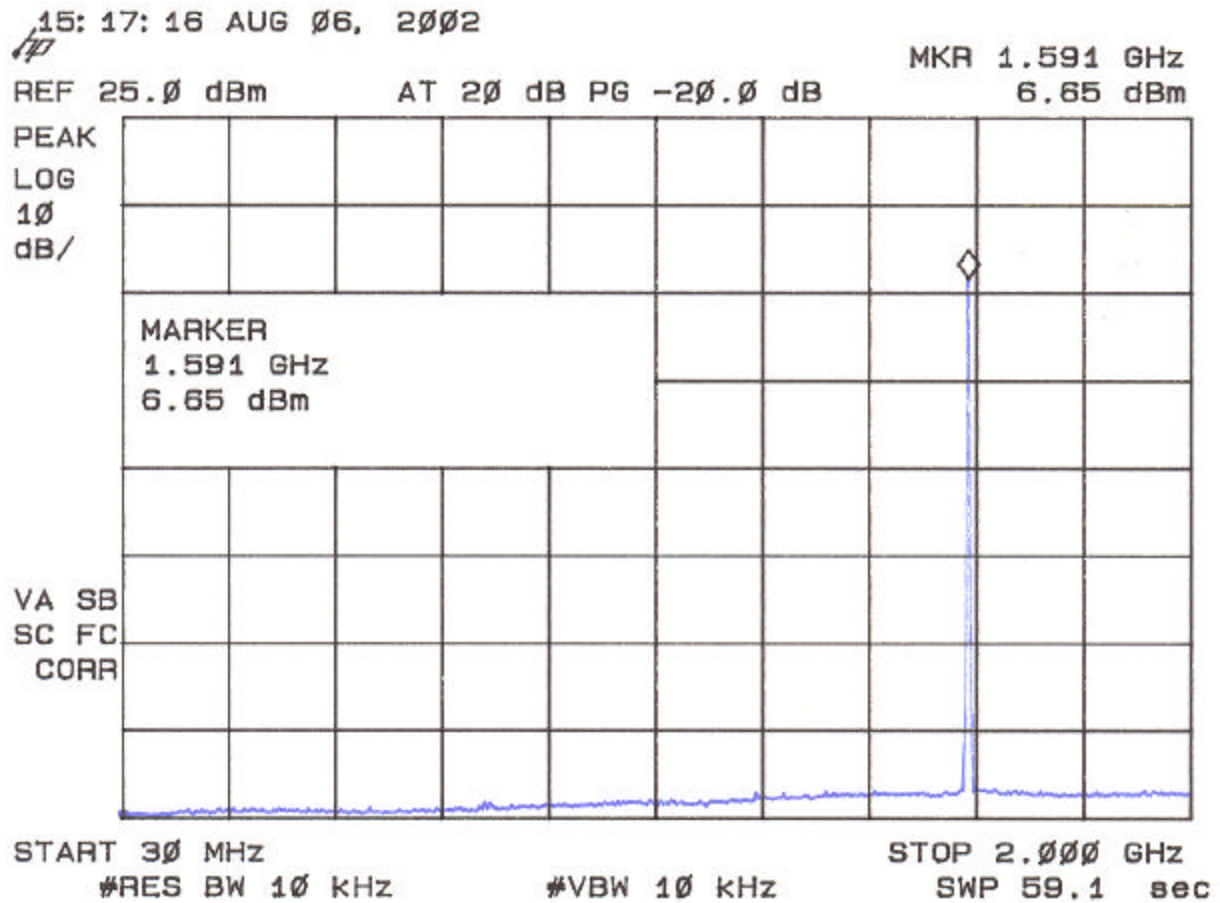
Additional requirement for 1574.397 - 157.443 MHz (FCC Section 25.213(b))

- 80 dBW (- 50 dBm)

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Figure 6a.
Spurious Emissions at Antenna Terminals

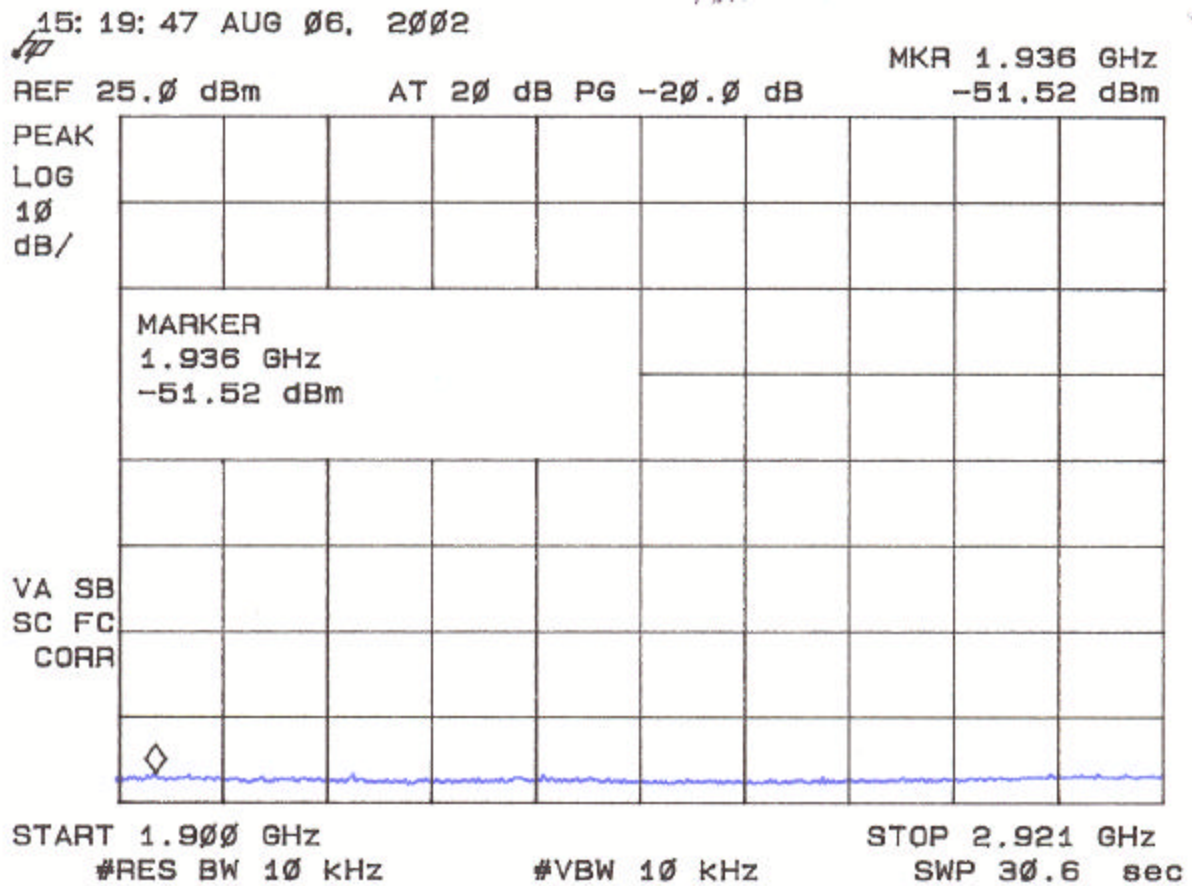


NOTE: Marker shows Fundamental Frequency

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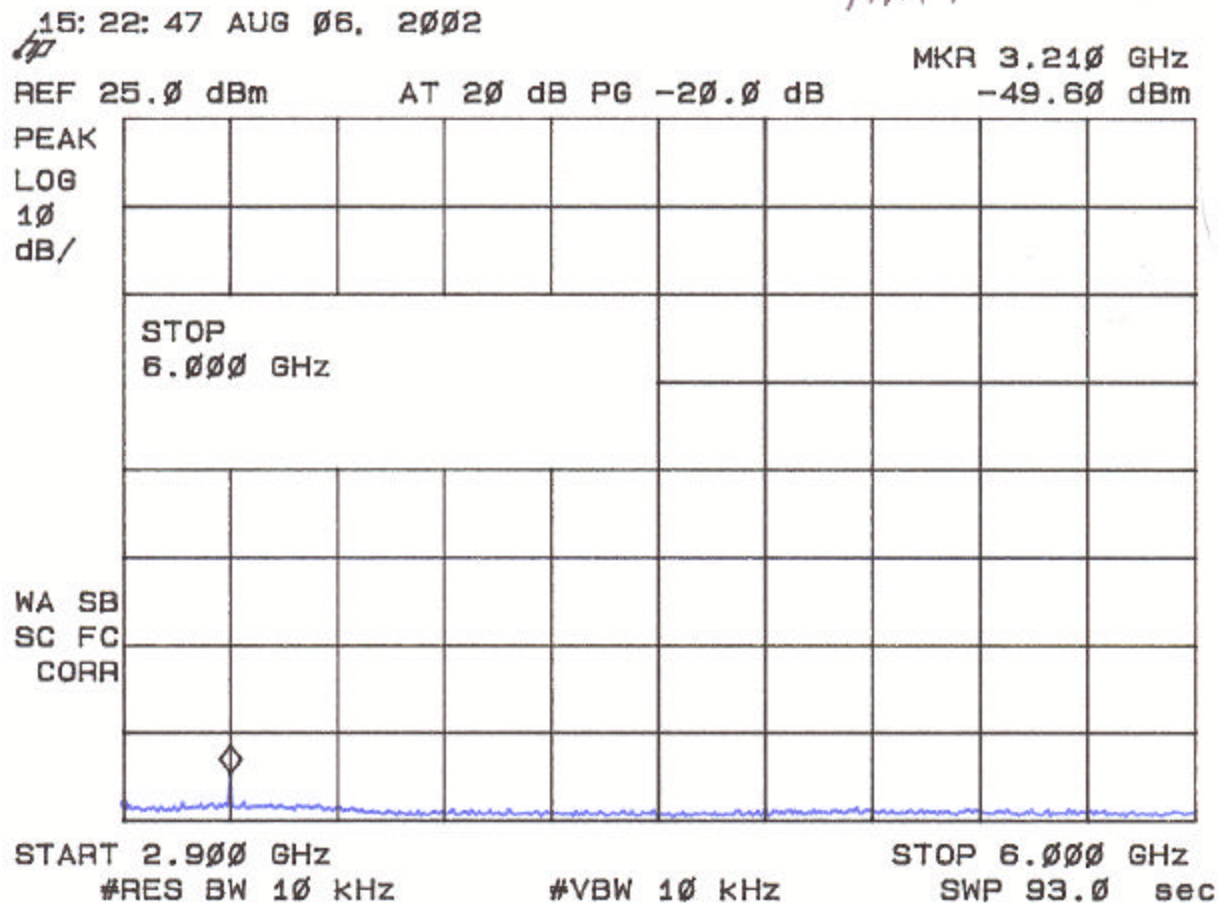
Figure 6b.
Spurious Emissions at Antenna Terminals



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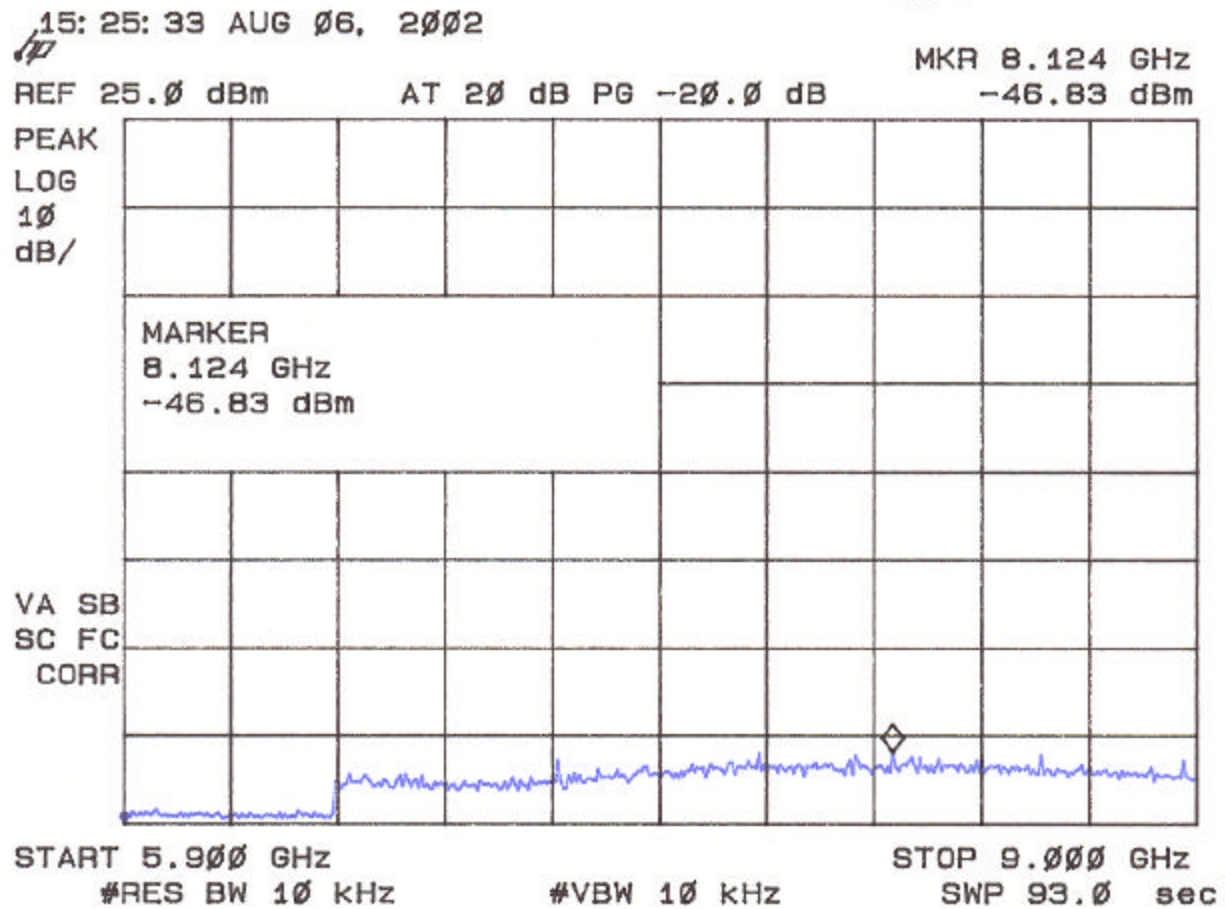
Figure 6c.
Spurious Emissions at Antenna Terminals



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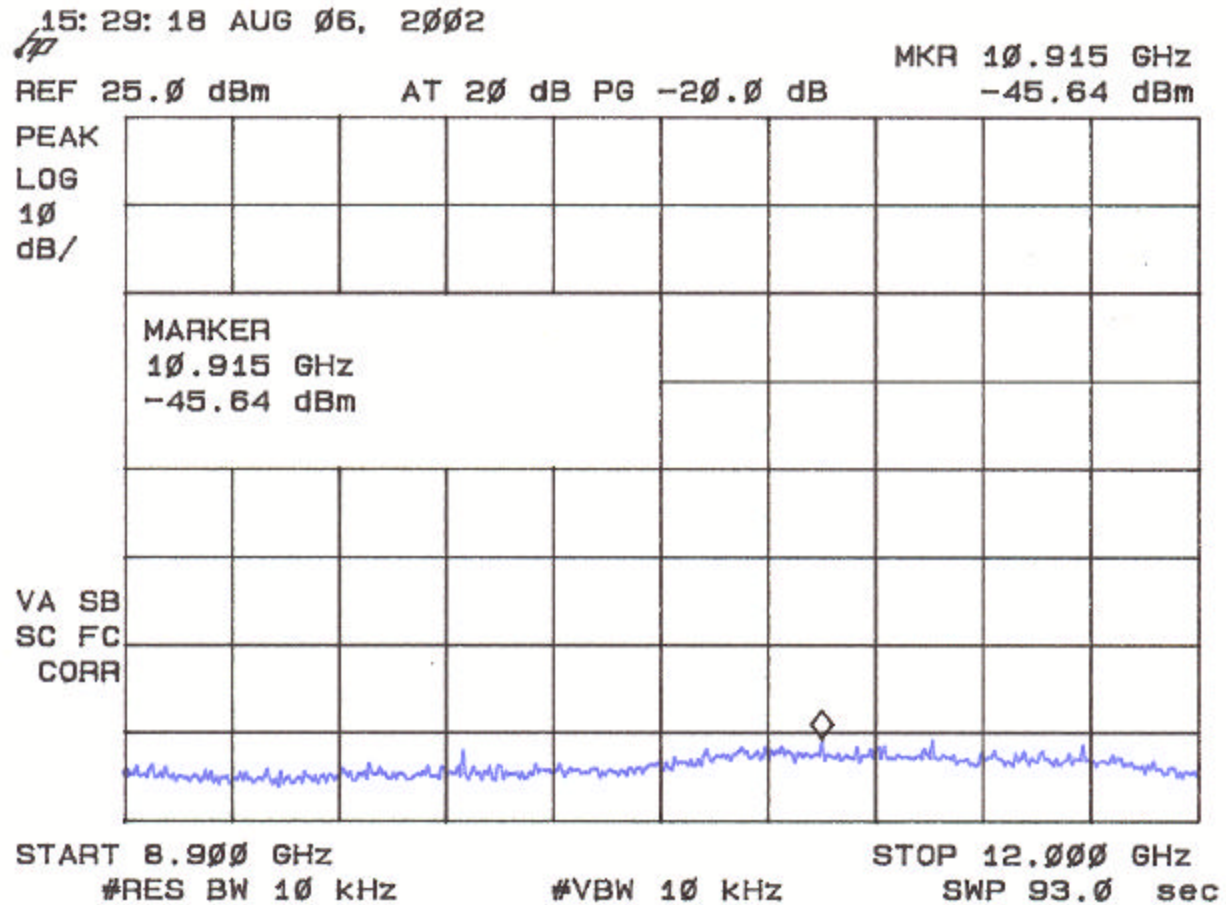
Figure 6d.
Spurious Emissions at Antenna Terminals



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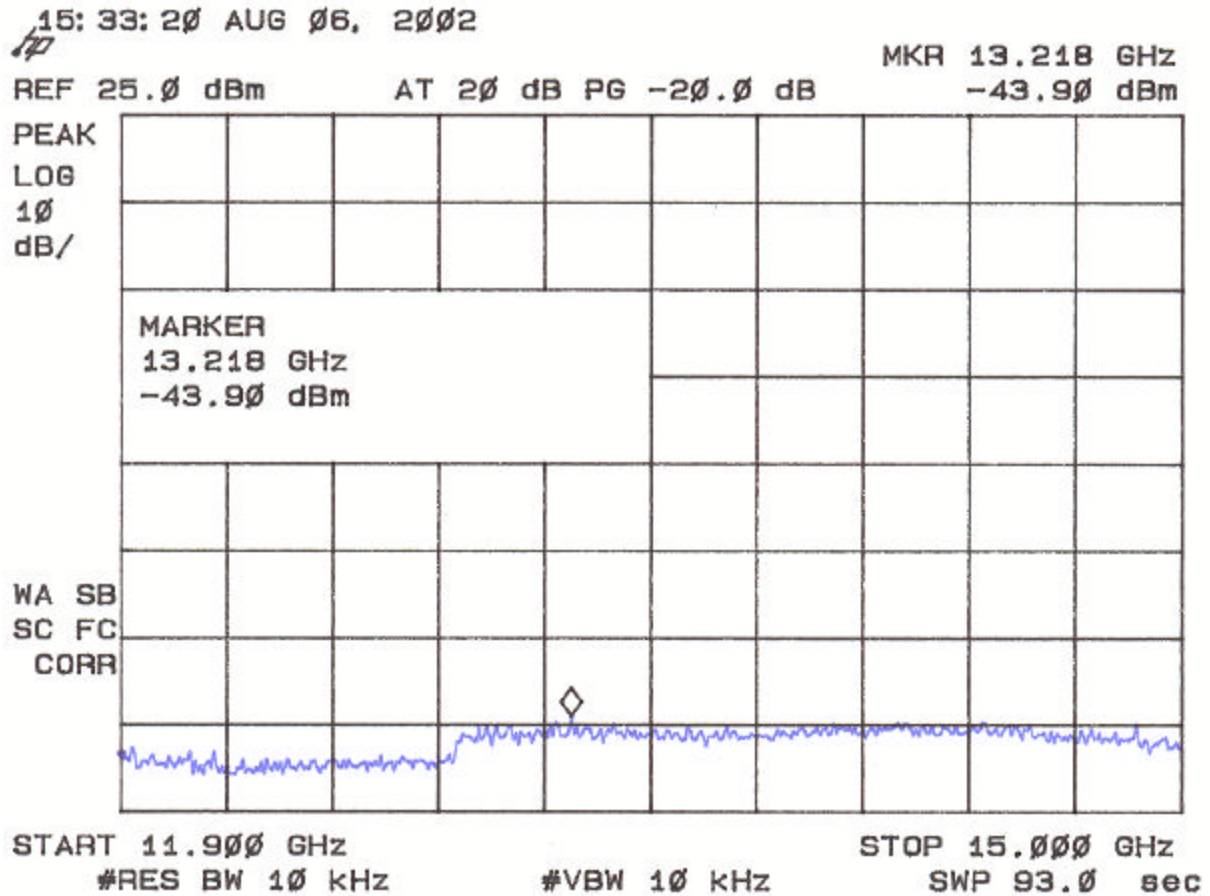
Figure 6e.
Spurious Emissions at Antenna Terminals



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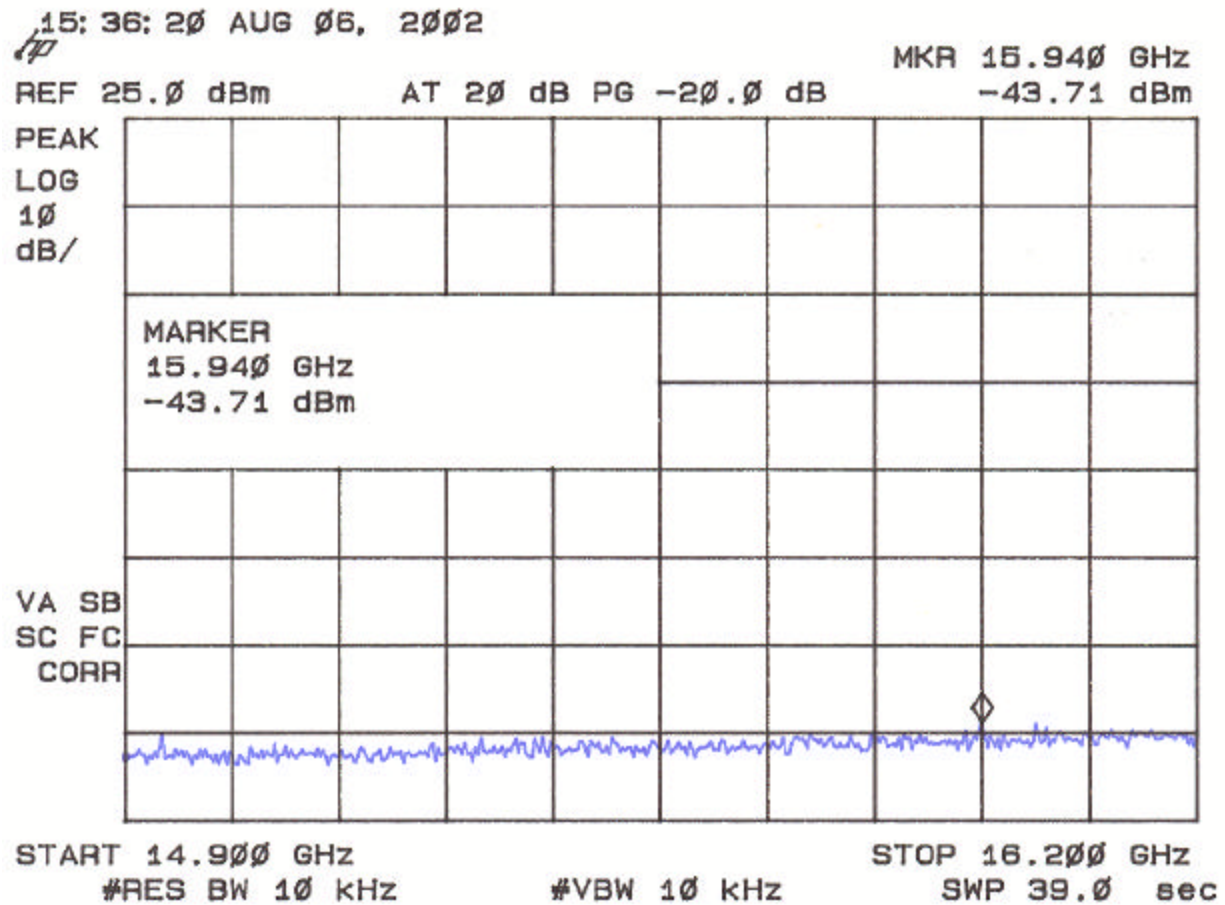
Figure 6f.
Spurious Emissions at Antenna Terminals



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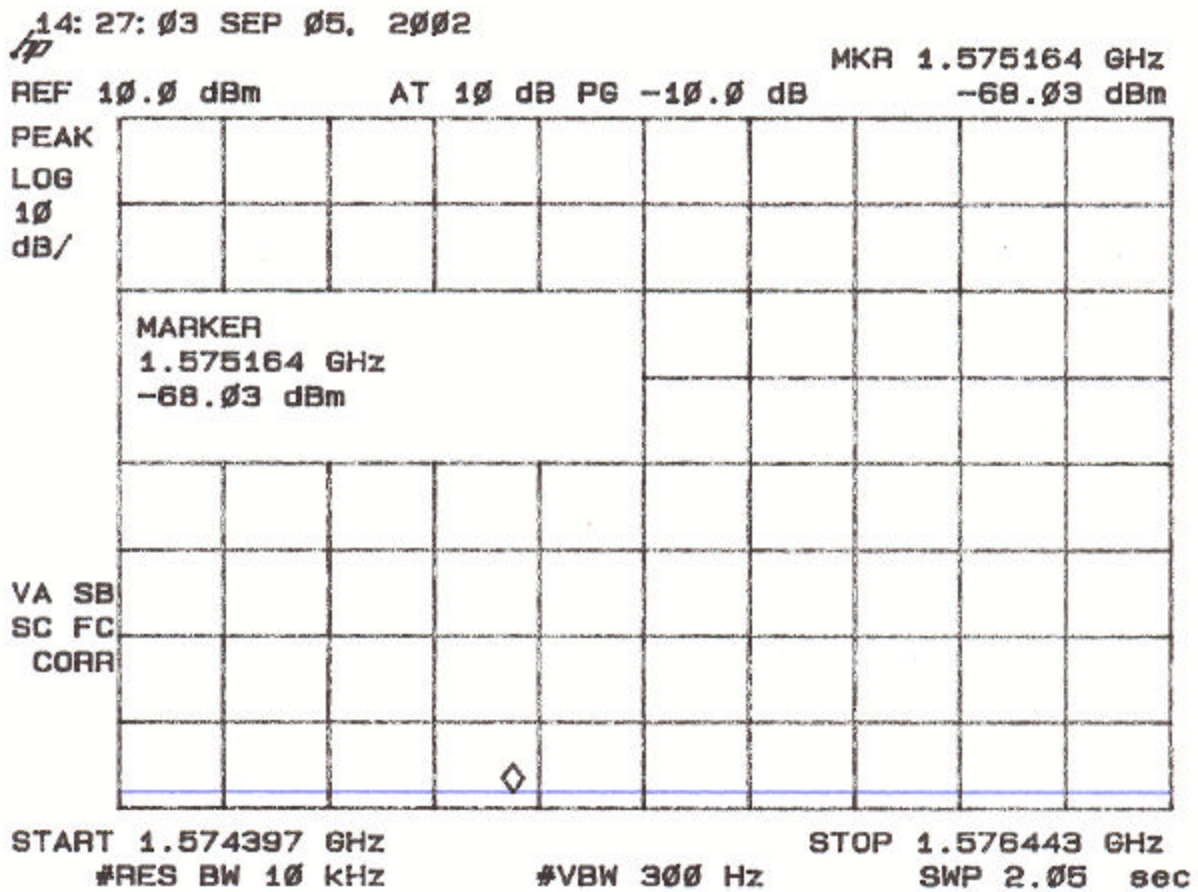
Figure 6g.
Spurious Emissions at Antenna Terminals



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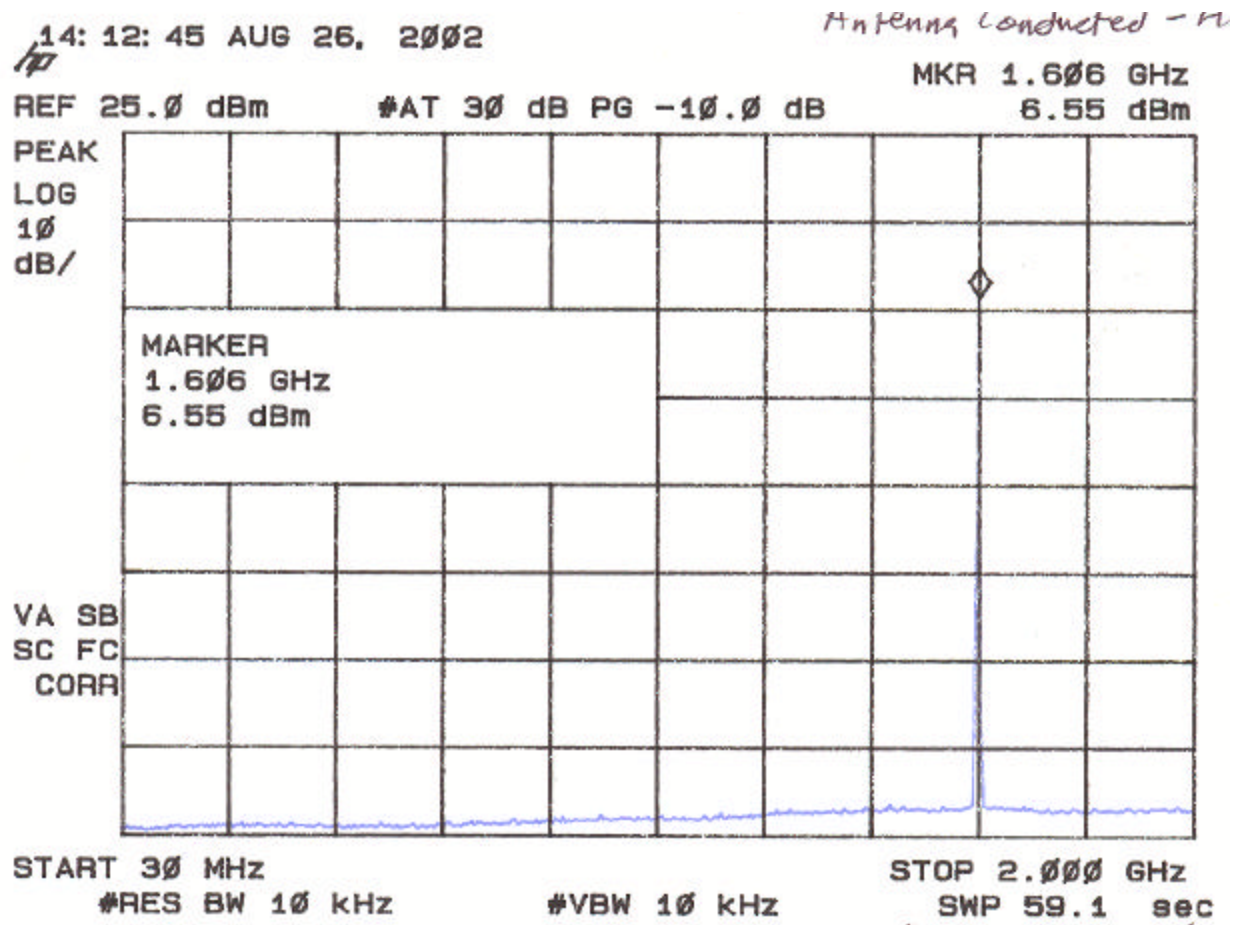
Figure 6h.
Spurious Emissions at Antenna Terminals

Limit = -80 dBW = -50 dBm

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Figure 6i.
Spurious Emissions at Antenna Terminals

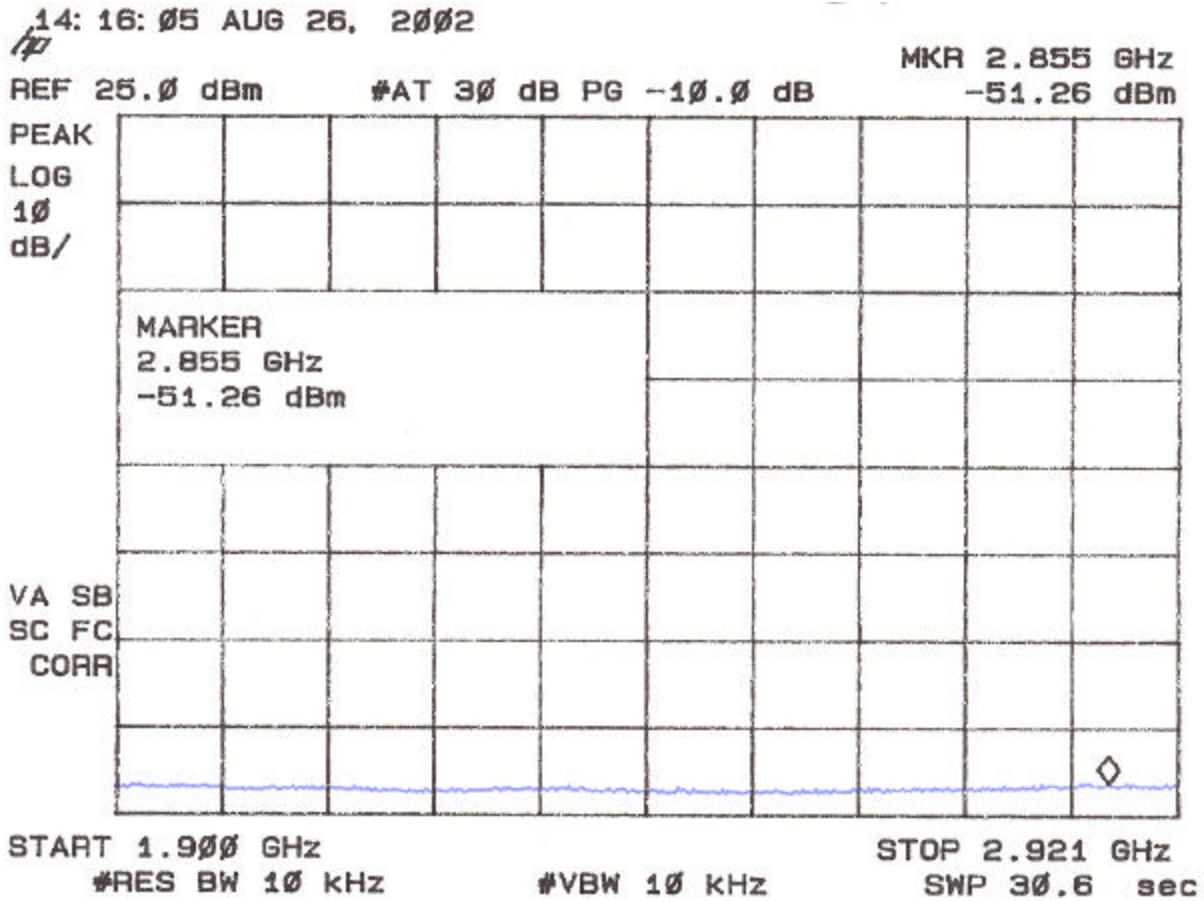


NOTE: Marker shows Fundamental Frequency

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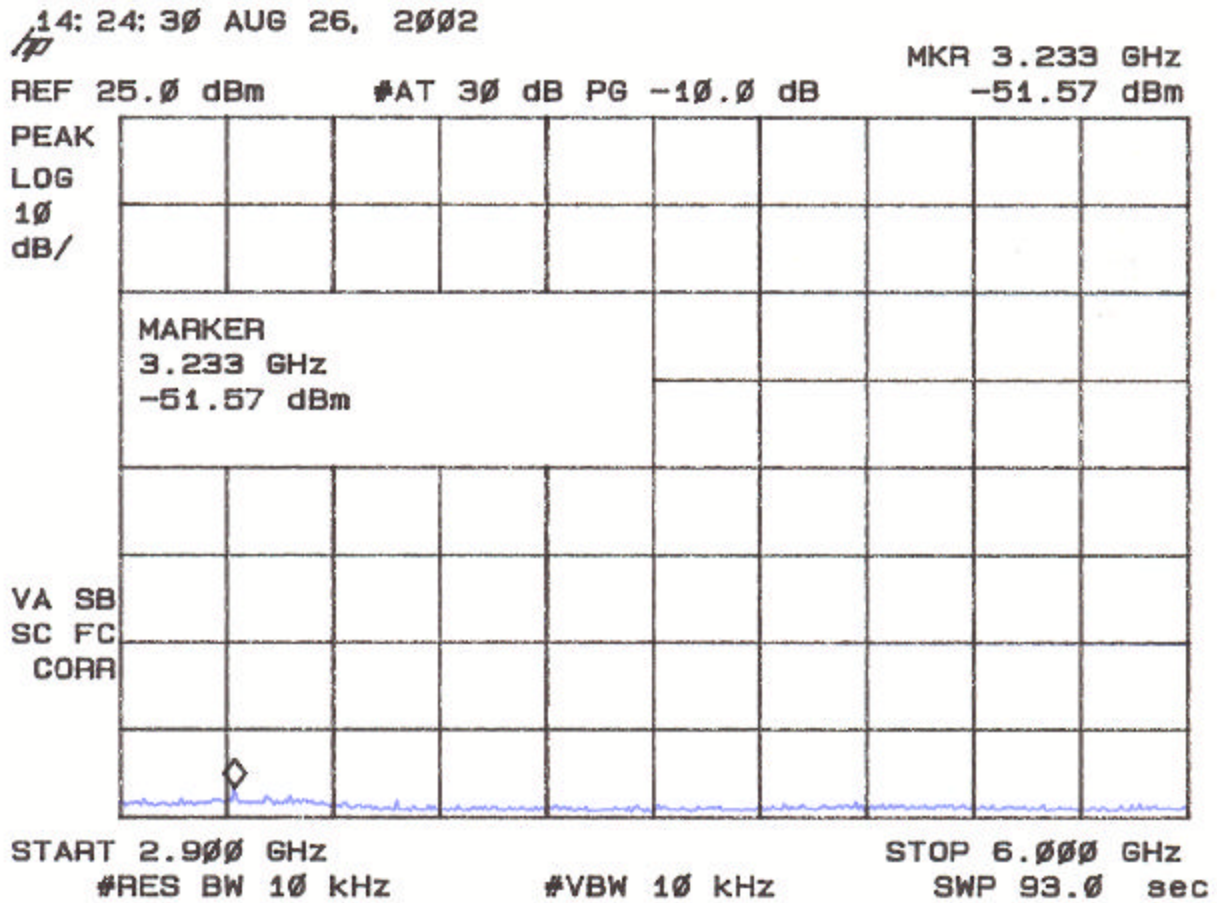
Figure 6j.
Spurious Emissions at Antenna Terminals



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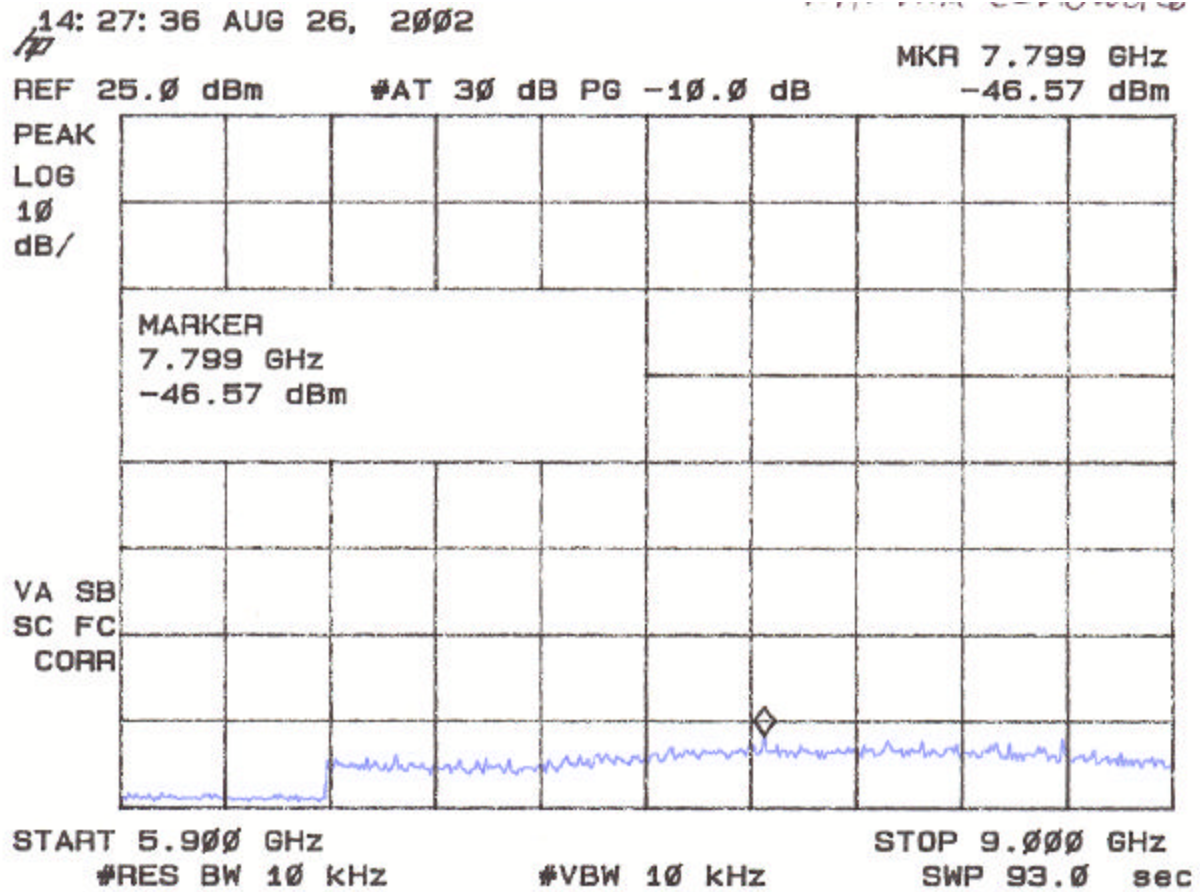
Figure 6k.
Spurious Emissions at Antenna Terminals



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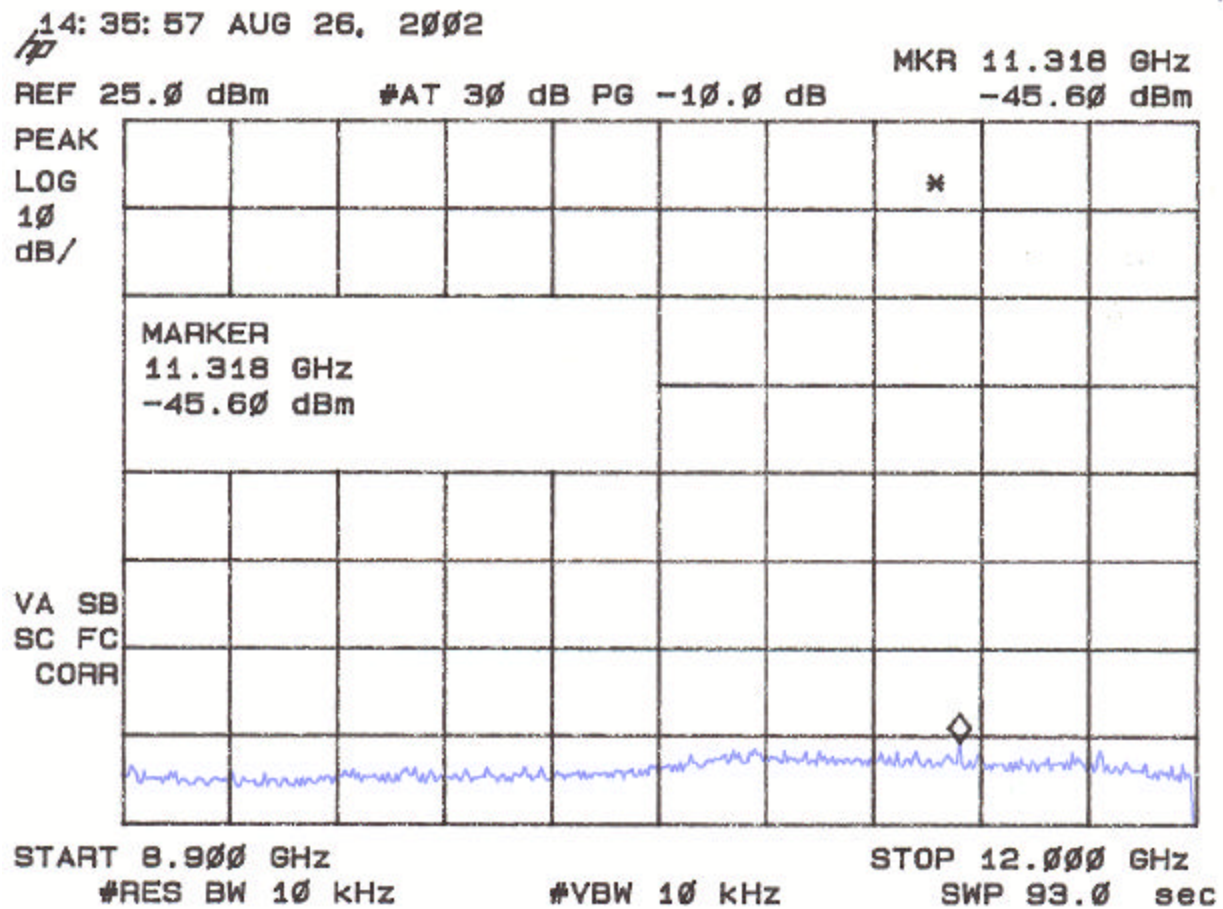
Figure 6I.
Spurious Emissions at Antenna Terminals



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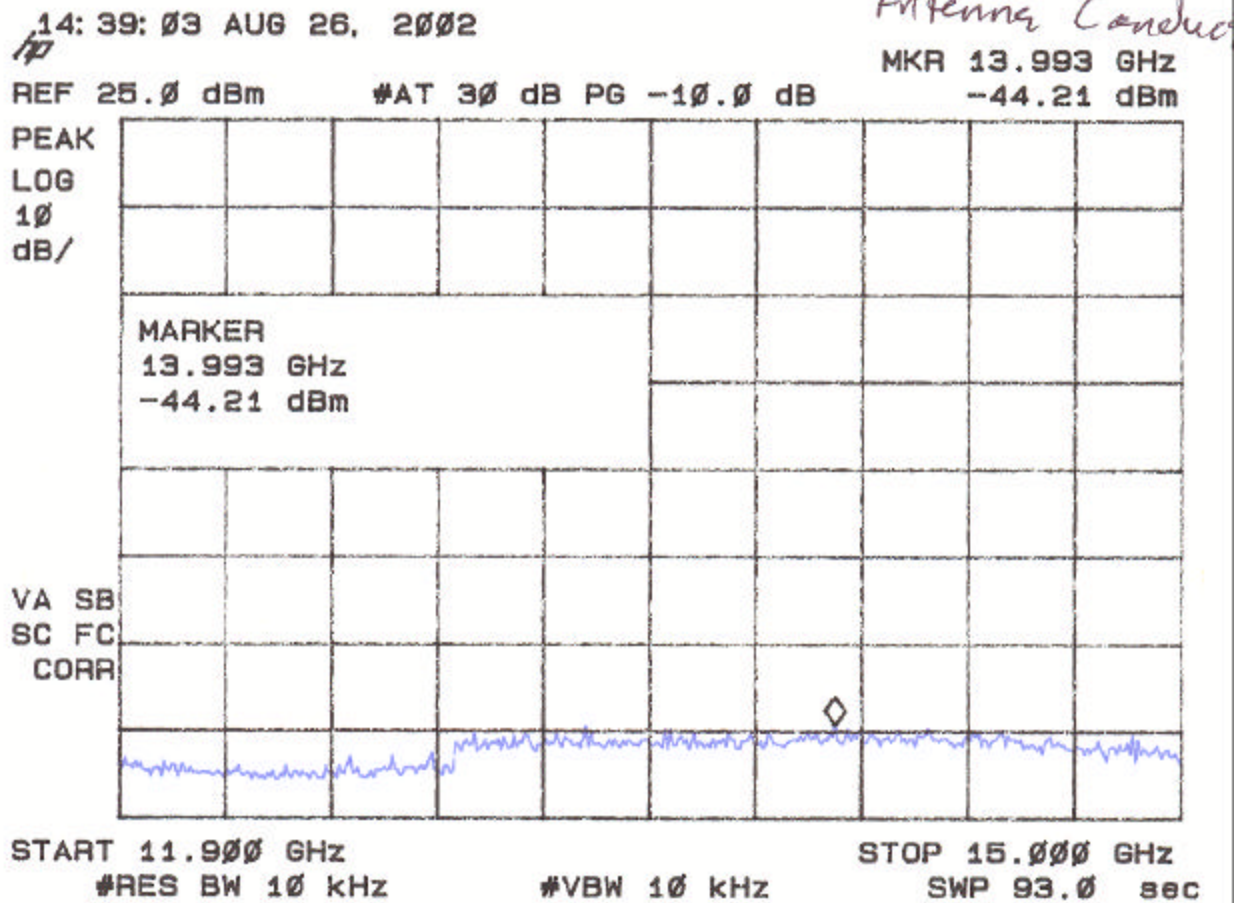
Figure 6m.
Spurious Emissions at Antenna Terminals



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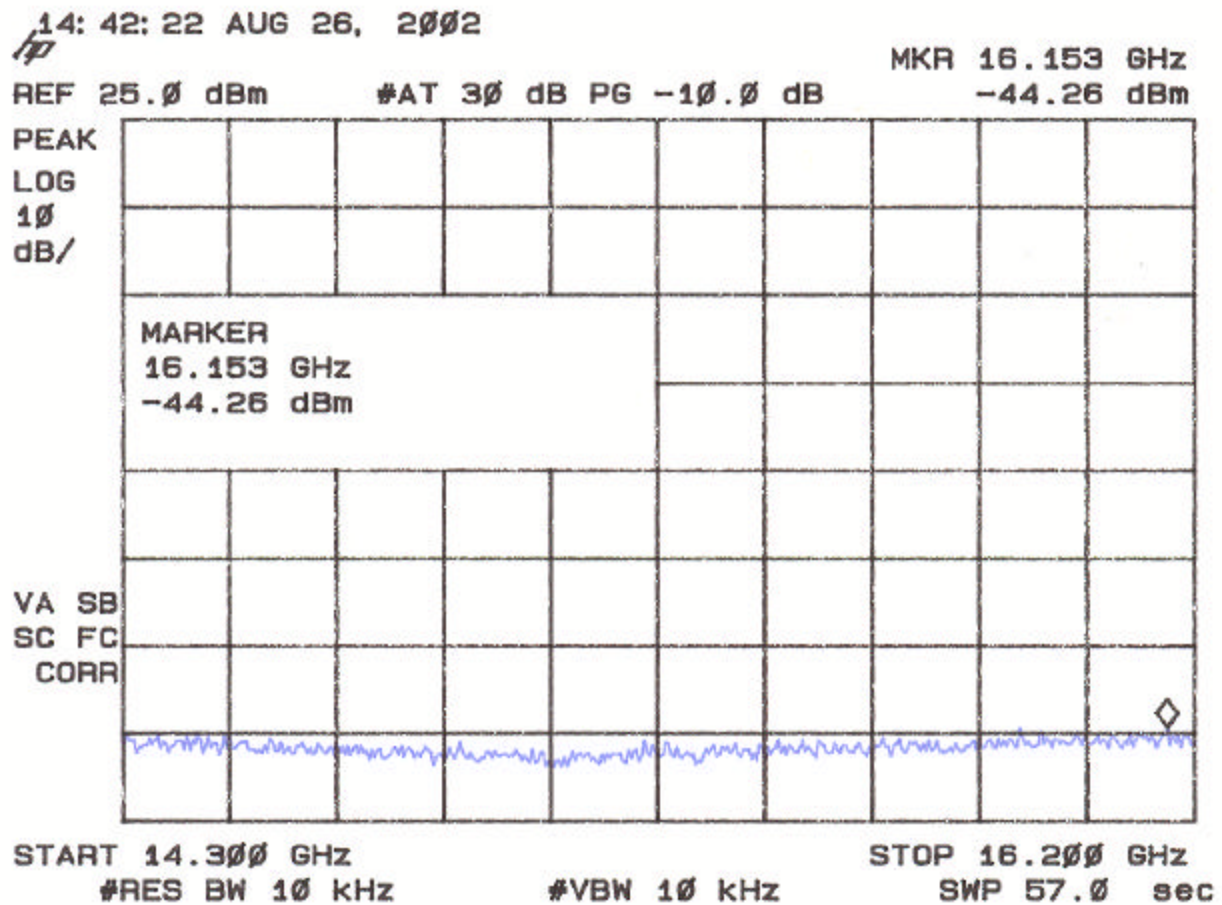
Figure 6n.
Spurious Emissions at Antenna Terminals



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Figure 6o.
Spurious Emissions at Antenna Terminals



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Figure 6p.
Spurious Emissions at Antenna Terminals

Limit= -80 dBW = -50 dBm