## **SUBMITTED MEASURED DATA -- INDEX**

#### EXHIBIT DESCRIPTION

11A RF Output Data

- 11G Conducted Spurious Emissions: Setup, Specifications, Index
- 11G-1 Conducted Spurious Emissions, Range 1, Power Output at 100 Watts
- 11G-2 Conducted Spurious Emissions, Range 2, Power Output at 100 Watts
- 11G-4 Conducted Spurious Emissions, Range 1, Power Output at 25 Watt
- 11G-5 Conducted Spurious Emissions, Range 2, Power Output at 25 Watt
- 11H Radiated Spurious Emissions: Setup, Specifications, Index
- 11H-1 Radiated Spurious Emissions, Power Output at 100 Watts
- 11H-2 Radiated Spurious Emissions, Power Output at 25 Watts

# **RF POWER OUTPUT DATA**

The RF power output was measured with the indicated voltage applied to and current into the final RF amplifying device.

| Measured RF output                            | <u>100</u>  | Watts    |
|---|-------------|----------|
| Normal DC Voltage                             | <u>28.4</u> | Volts    |
| Normal DC Current                             | <u>11.0</u> | Amperes  |
| Input power for final RF amplifying device(s) | <u>312</u>  | Watts    |
| Primary Supply Voltage                        | <u>120</u>  | Volts AC |
|   |             |          |
|   |             |          |
| Minimum Measured RF output                    | <u>25</u>   | Watts    |
| Normal DC Voltage                             | <u>28.4</u> | Volts    |
| Normal DC Current                             | <u>5.8</u>  | Amperes  |
| Input power for final RF amplifying device(s) | <u>165</u>  | Watts    |
| Primary Supply Voltage                        | <u>120</u>  | Volts AC |

## CONDUCTED SPURIOUS EMISSIONS

### SPECIFICATION REQUIREMENT: §90.210(d) Emission Mask Requirements for 12.5 kHz Channel Bandwidth Equipment, Emission Mask D:

[Note: This transmitter was originally type accepted to operate with 25 kHz channels as well as with 12.5 kHz channels. All 25 kHz emissions were required to adhere to the B-mask which is, of course, less stringent than the D-mask outside of the authorized bandwidth. Therefore only the D-mask requirement is referred to or listed in this change package].

For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:

On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB (whichever is the lesser attenuation).

(4) The reference level for showing compliance with the emission mask shall be established using a resolution bandwidth sufficiently wide to capture the true peak emission of the equipment under test. A sufficient number of sweeps must be measured to ensure that the emission profile is developed. If video filtering is used, its bandwidth must not be less than the instrument resolution bandwidth. For emissions beyond 50 kHz from the edge of the authorized bandwidth, a resolution of at least 10 kHz must be used for frequencies below 1000 MHz. Above 1000 MHz the resolution bandwidth of the instrumentation must be at least 1 MHz. If it can be shown that use of the above instrumentation settings do not accurately represent the true interference potential of the equipment under test, then an alternate procedure may be used provided prior Commission approval is obtained.

Modulation: 2500 Hz tone at +16 dB over the level required for 50% deviation.
Carrier Frequency: For the range 1 operating sub-band, carrier frequencies at 132, 142, and 154 MHz were measured. These frequencies represent the low end, middle, and high end of the 132 – 154 MHz range 1 sub-band.
For the range 2 operating sub-band, carrier frequencies at 150 and 174 MHz were measured. These frequencies represent the low end and the high end of the 150 – 174 MHz range 2 sub-band.

## **SPURIOUS EMISSION PLOTS:**

#### EXHIBIT DESCRIPTION

- 11G-1 Conducted Spurious Emissions, Harmonics, Range 1, Power Output at 100 Watts
   11G-2 Conducted Spurious Emissions, Harmonics, Range 2, Power Output at 100 Watts The specification limit is -70.0 dBc
- 11G-4 Conducted Spurious Emissions, Harmonics, Range 1, Power Output at 25 Watts
- 11G-5 Conducted Spurious Emissions, Harmonics, Range 2, Power Output at 25 Watts The specification limit is -64.0 dBc









EQUIPMENT TYPE: ABZ89FC3786



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#### RADIATED SPURIOUS EMISSIONS

#### SPECIFICATION REQUIREMENT: §90.210(d) Emission Mask Requirements for 12.5 kHz Channel Bandwidth Equipment, Emission Mask D:

[Note: This transmitter was originally type accepted to operate with 25 kHz channels as well as with 12.5 kHz channels. All 25 kHz emissions were required to adhere to the B-mask which is, of course, less stringent than the D-mask outside of the authorized bandwidth. Therefore only the D-mask requirement is referred to or listed in this change package].

For transmitters designed to operate with a 12.5 kHz channel bandwidth, any emission must be attenuated below the power (P) of the highest emission contained within the authorized bandwidth as follows:

On any frequency removed from the center of the authorized bandwidth by a displacement frequency (fd in kHz) of more than 12.5 kHz: At least 50 + 10 log (P) dB or 70 dB (whichever is the lesser attenuation).

(4) The reference level for showing compliance with the emission mask shall be established using a resolution bandwidth sufficiently wide to capture the true peak emission of the equipment under test. A sufficient number of sweeps must be measured to ensure that the emission profile is developed. If video filtering is used, its bandwidth must not be less than the instrument resolution bandwidth. For emissions beyond 50 kHz from the edge of the authorized bandwidth, a resolution of at least 10 kHz must be used for frequencies below 1000 MHz. Above 1000 MHz the resolution bandwidth of the instrumentation must be at least 1 MHz. If it can be shown that use of the above instrumentation settings do not accurately represent the true interference potential of the equipment under test, then an alternate procedure may be used provided prior Commission approval is obtained.

Modulation:2500 Hz tone at +16 dB over the level required for 50% deviation.Carrier Frequency:A carrier at 150.0125 MHz was measured. This frequency is near the center of the<br/>operating band 132 – 174 MHz.

### **SPURIOUS EMISSION PLOTS:**

## EXHIBIT DESCRIPTION

- 11H-1 Radiated Spurious Emissions, Harmonics, Power Output at 100 Watts The specification limit is –70.0 dBc
- 11H-2 Radiated Spurious Emissions, Harmonics, Power Output at 25 Watts The specification limit is –64.0 dBc





