

On July 28th, 2013, Boyd Broadcast Technical Services made measurements of KXPC (97.9 MHz), Aloha, Oregon, to show compliance with FCC Rule 73.317 and to comply with Special Operating Condition 2 on Construction Permit BMPH-20130715AD (modifying permit no.: BPH-20121218ACC). The measurements described here were made following the addition of KXPC to the common antenna and combining system at the Skyline tower facility in Portland, Oregon. The other stations at this site are KOPB-FM (91.5 MHz), Portland, Oregon, KKRZ (100.3 MHz), Portland, Oregon, KINK (auxiliary site)(101.9 MHz), Portland, Oregon, KKCW (103.3 MHz), Beaverton, Oregon, KRSK (105.1 MHz) Molalla, Oregon, and KFBW (105.9 MHz), Vancouver, Washington. All stations utilizing this common antenna system were operating with their authorized facilities at the time of the measurements.

Also co-located at this site, are several television stations. They are KGW, Channel 8, Portland, Oregon, KOPB-TV, Channel 10, Portland, Oregon, KPXG-TV, Channel 22, Salem, Oregon, KPXG-LD, Channel 42, Portland, Oregon, and KGWZ-LD, Channel 46, Portland, Oregon. There are also FM translators operating from this location. They are K220IN, K228EU, K272EI, K274AR and K283BL. None of the TV stations or FM translators use the common antenna system studied in this report.

In addition several other sites are near the Skyline site (within 5.5 km) hosting other FM and TV broadcast transmitters.

All measurements were made at a forward port of a Shively directional coupler located in line following the multi-station combining system and prior to the facility's common antenna system. This directional coupler exhibits a rising output level versus frequency characteristic. The amount of increase is approximately equivalent to 20 X Log of the observed frequency divided by carrier frequency.

A coaxial attenuator was inserted ahead of the Agilent E4402B spectrum analyzer (Serial Number MY44221068), which was used for the measurements. A total of 20 dB of external attenuation was used to make a reference measurement at carrier frequency. The amplitude calibration of the instrument was electronically adjusted to account for this attenuation. This reference data plot for KXPC is shown on page 4.

A double cavity notch filter tuned to 97.9 MHz (KXPC), was used following the attenuator and ahead of the spectrum analyzer to prevent signal overload and subsequent erroneous intermodulation products. The amplitude versus frequency response of this filter is shown on page 3 of this report. This setup was used to analyze the FM broadcast band (88 to 108 MHz). Data plots for this portion of the spectrum are shown on page 5.

The 20 dB attenuator was removed for measurements outside of the FM broadcast band. This reduction in the amount of attenuation provides the necessary dynamic range for the spectrum analyzer to observe any spurious signals. In addition, a Microwave Filter Company 3367 FM Bandstop Filter was inserted ahead of the spectrum analyzer to observe the spectrum from 30 to 90 MHz and from 108 MHz to 1100 MHz. The amplitude versus frequency response of the bandstop filter is shown on pages 3 and 4. Data plots for all of these measurements are shown on pages 6, 7 and 8.

**EXHIBIT B**  
**APPLICATION FOR STATION LICENSE**  
**CUMULUS LICENSING LLC**  
**KXPC (FM) RADIO STATION**  
**CH 250C1 - 97.9 MHZ - 9.7 KW**  
**ALOHA, OREGON**  
**July 2013**

Attenuators are precision devices manufactured by Coaxial Dynamics. All cables are constructed of high quality, 100% shielded coaxial cable with premium connectors. Adapter connectors used are also premium quality.

A block diagram of the measurement setup is shown on page 9 and a photograph of the test setup is shown on page 10.

Signals measured by the Agilent E4402B spectrum analyzer are digitized in the analyzer. Data was collected for a period of time using the instrument's peak-hold feature. The data for the reference plots was collected over an approximate 10 minute period. Other measurements were collected for several minutes each. This was done to observe possible short duration signals.

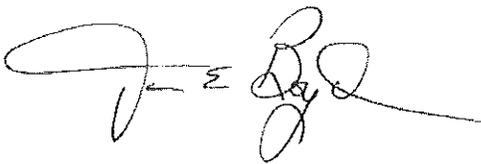
Data from these plots was saved in the analyzer's hard drive, then converted to .GIF files and downloaded into a computer for viewing and analysis (and to provide the plots shown in this report). The Agilent analyzer collected 401 data points over the instrument's selected frequency span for these measurements.

All filter response plots were measured using an Agilent N9912A portable network analyzer, serial number: US48310110.

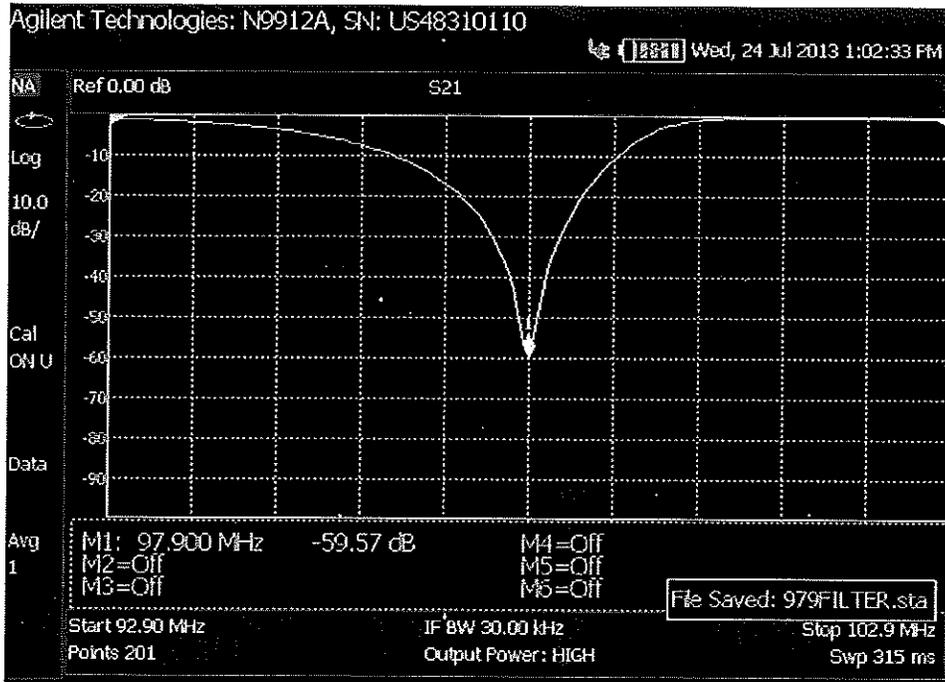
Although a number of signals were observed. All of these signals were identified. The signals observed were from other broadcast stations at this site and other nearby sites and are believed to be coming back down the transmission line from the common antenna. **No harmonic emissions, intermodulation products or other spurious emissions from KXPC at levels less than 80 dB below the fundamental carrier frequency were observed.** The fundamental reference level measured +21 dBm. No products less than -59 dBm were observed. It is believed that KXPC is in full compliance with section 73.317 of the commission's rules. A copy of the pertinent sections of this rule can be found on page 11.

All information contained in this report was gathered by the undersigned, who has experience making these kinds of measurements and whose qualifications are a matter of record with the Federal Communications Commission.

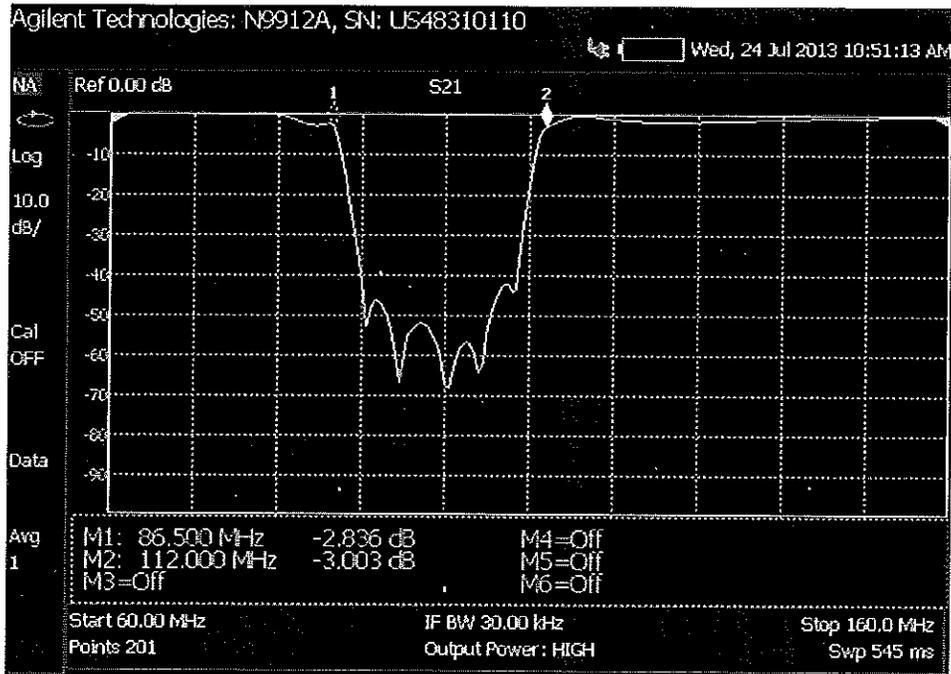
Respectfully Submitted,

A handwritten signature in black ink, appearing to read 'James E. Boyd', with a stylized flourish extending to the right.

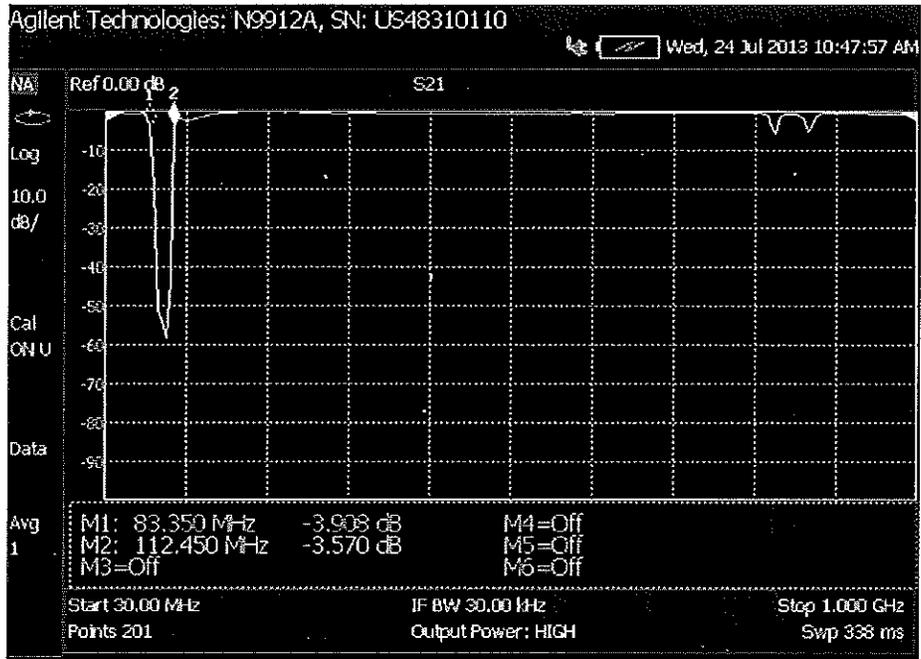
James E. Boyd  
Boyd Broadcast Technical Services  
21818 SW Columbia Circle  
Tualatin, OR 97062  
(503) 692-6074



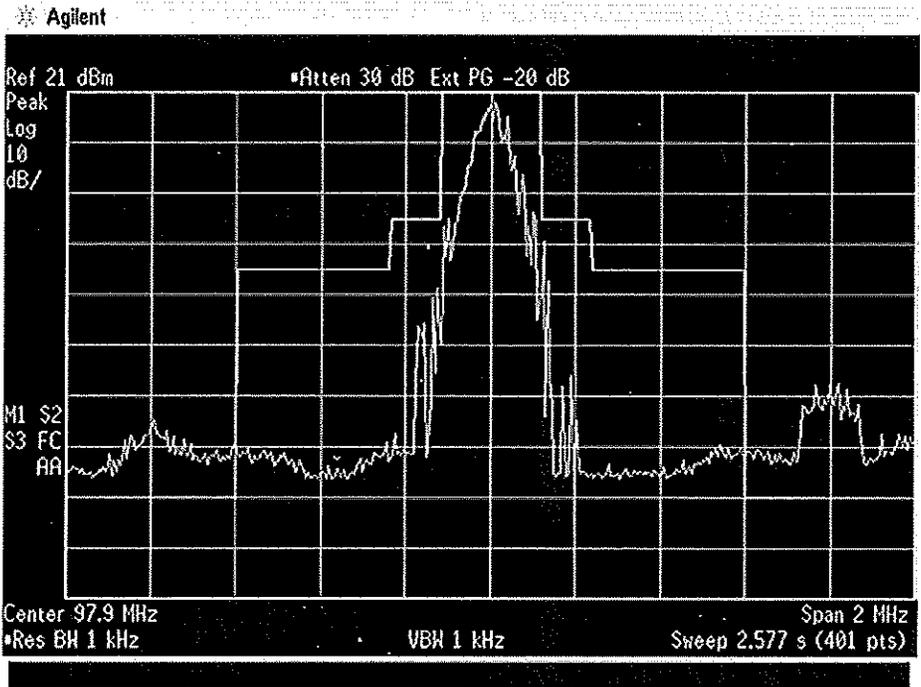
97.9 MHz Notch Filter



FM Bandstop Filter (viewed from 60 to 160 MHz)

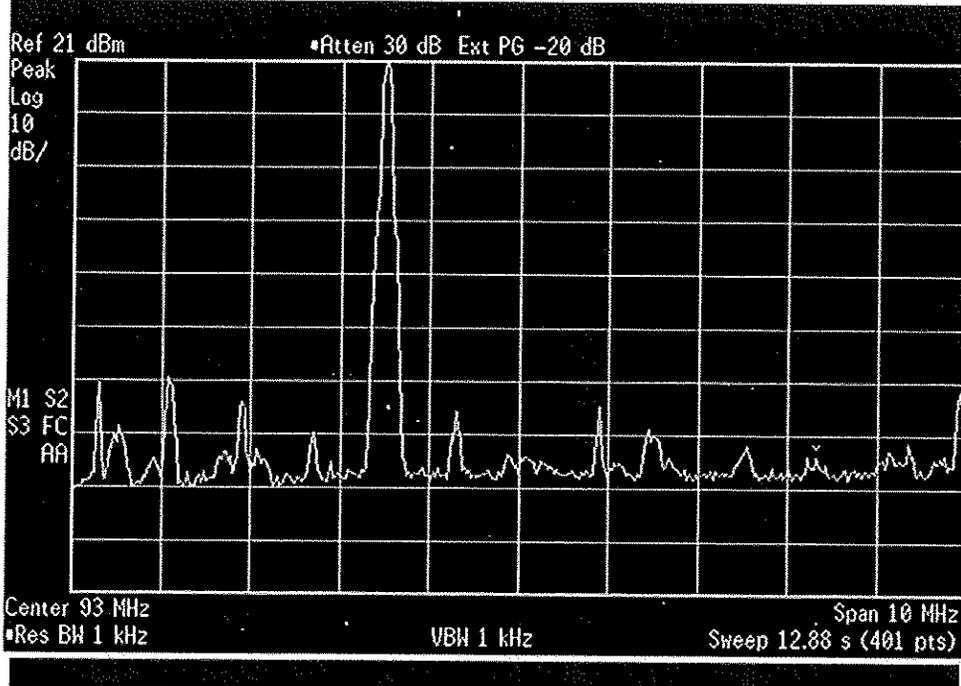


FM Bandstop Filter viewed from 30 to 1000 MHz



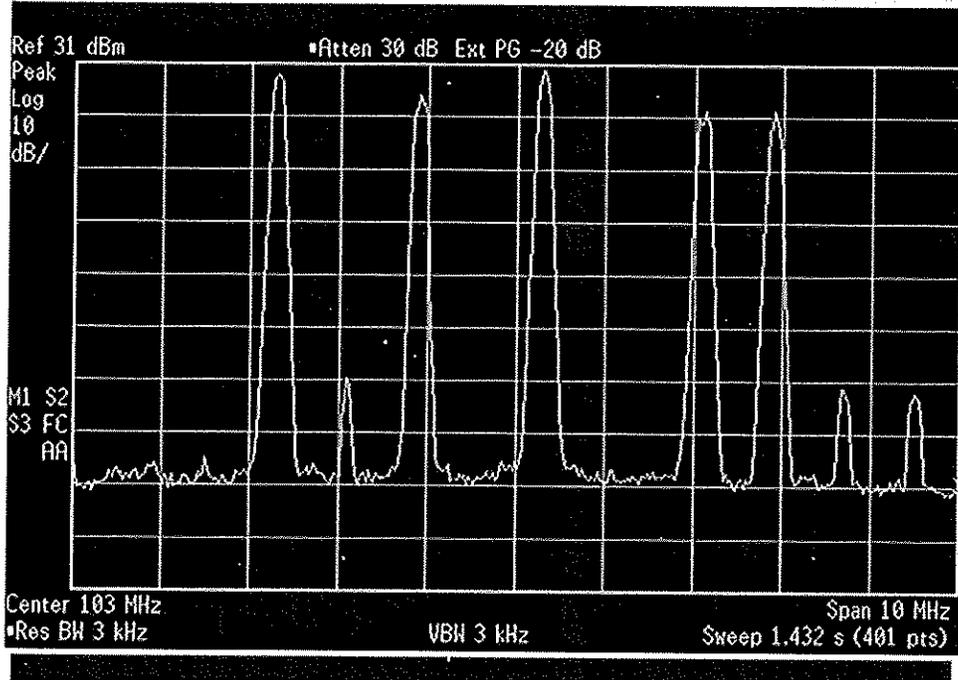
KXPC Reference Plot. Nearby stations, KUPL (98.5 MHz and KYCH-FM (97.1 MHz) can also be seen

Agilent

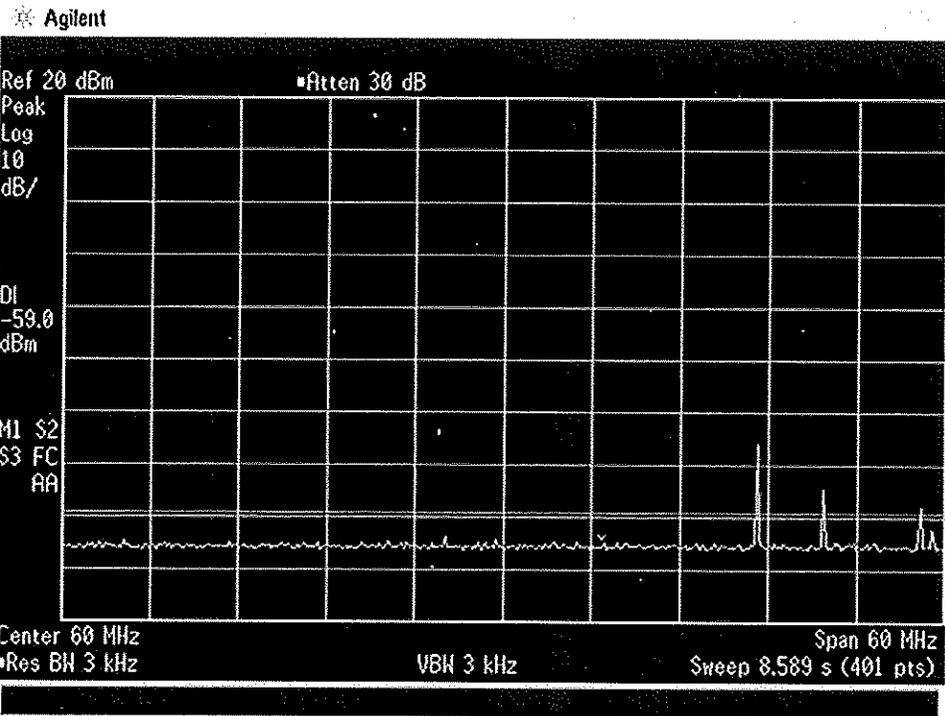


88 to 98 MHz -- All signals were identified as on site or nearby FM stations

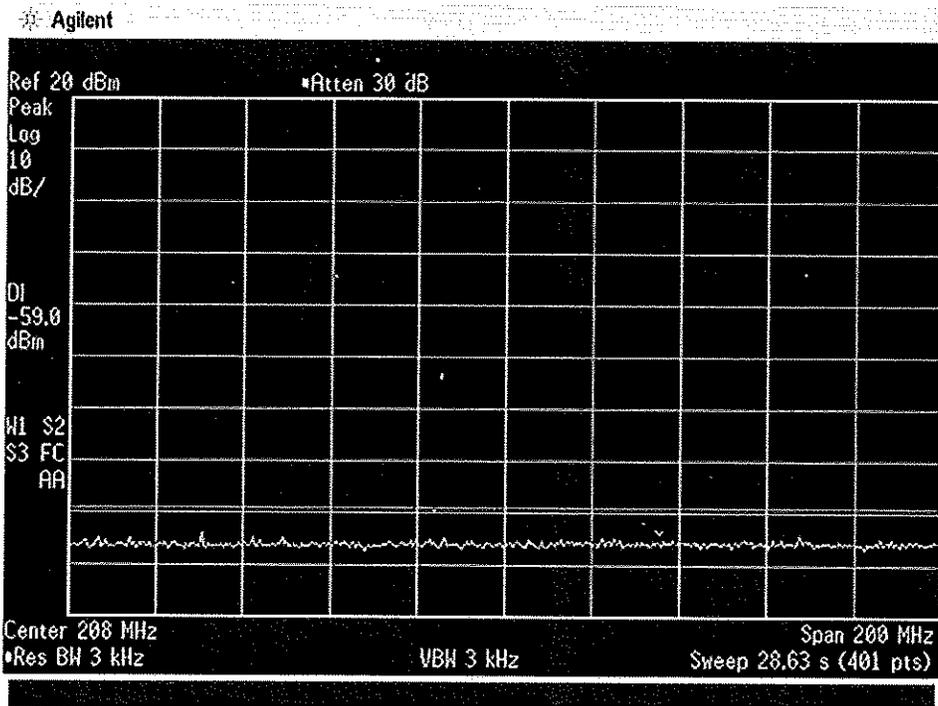
Agilent



98 to 108 MHz -- All signals were identified as on site or nearby FM stations

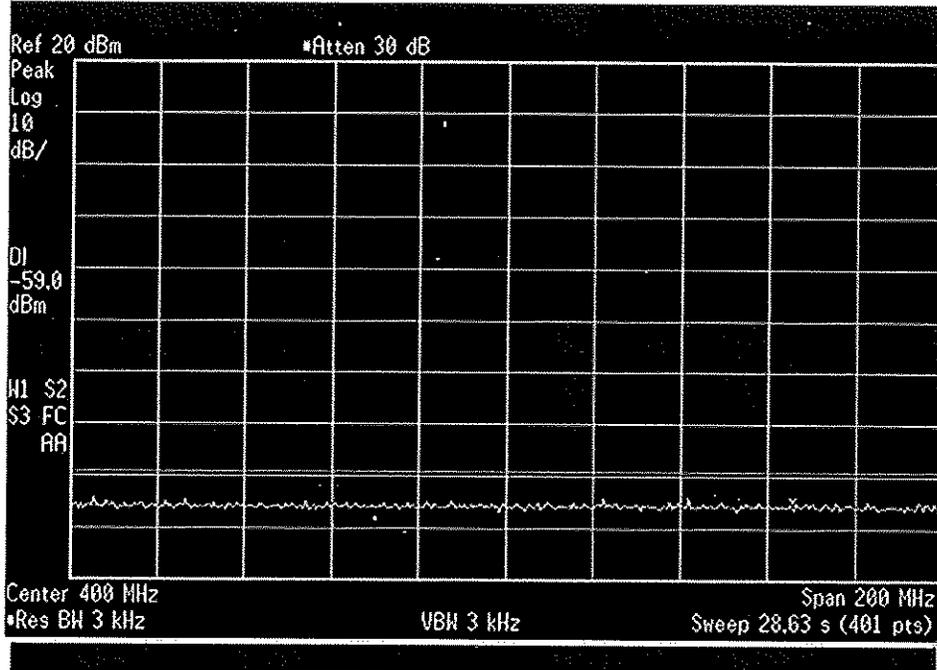


30 to 90 MHz – The signals beginning at 76 MHz are KRCW-LP Visual and Aural and the bottom of the FM broadcast band



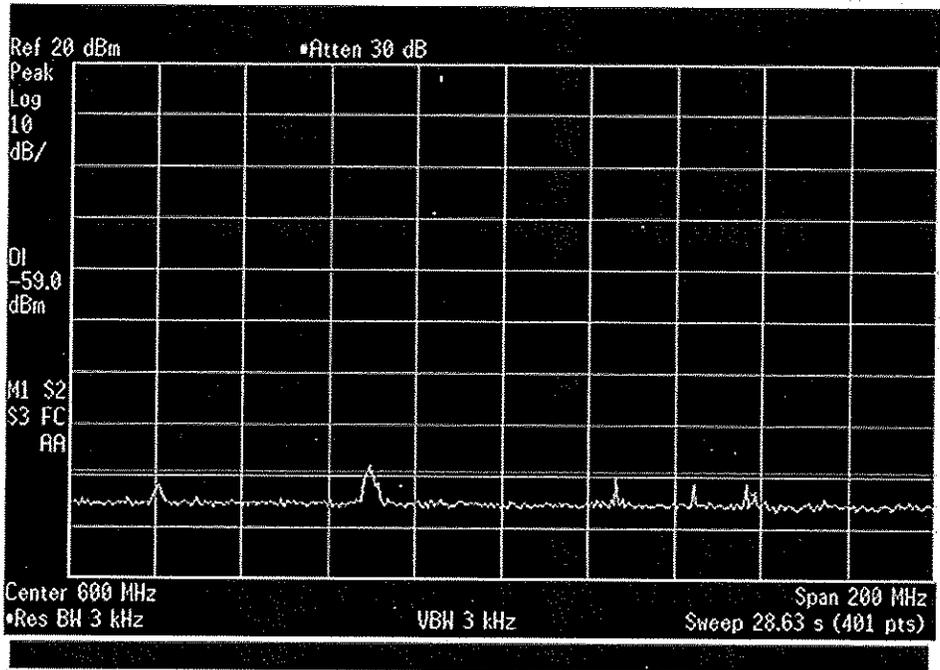
108 to 308 MHz

Agilent



300 to 500 MHz

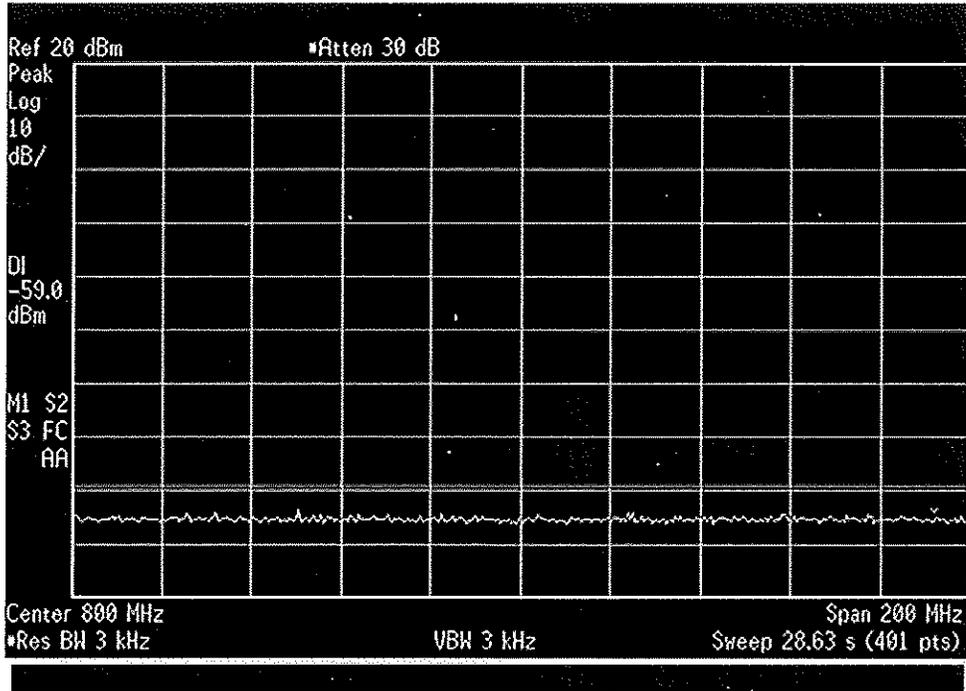
Agilent



500 to 700 MHz -- The signal at approximately 570 MHz is KPDx-TV)

Agilent

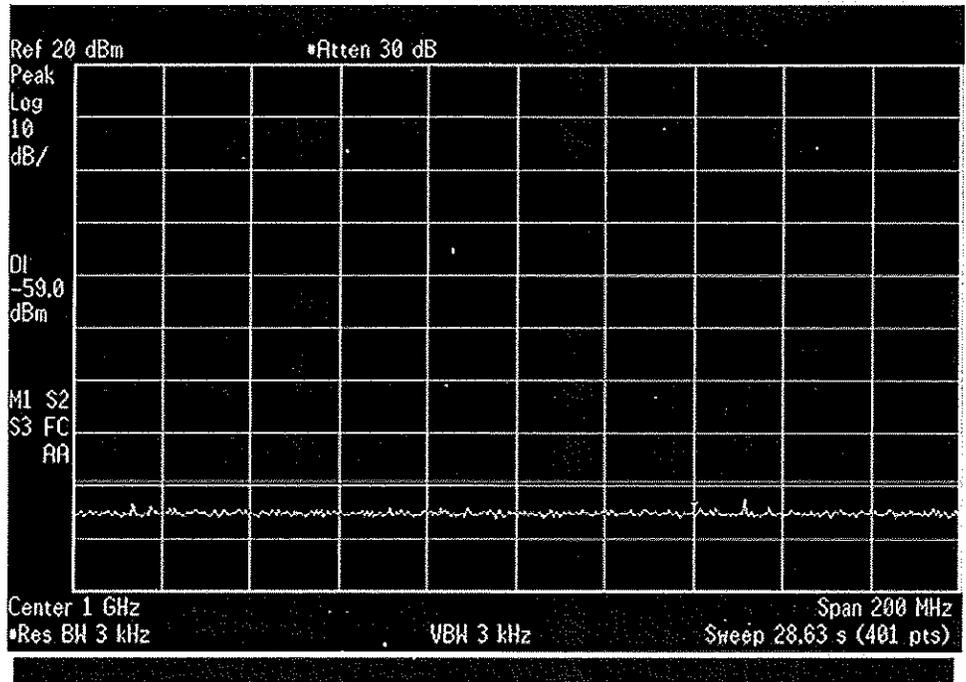
Agilent Technologies



700 to 900 MHz

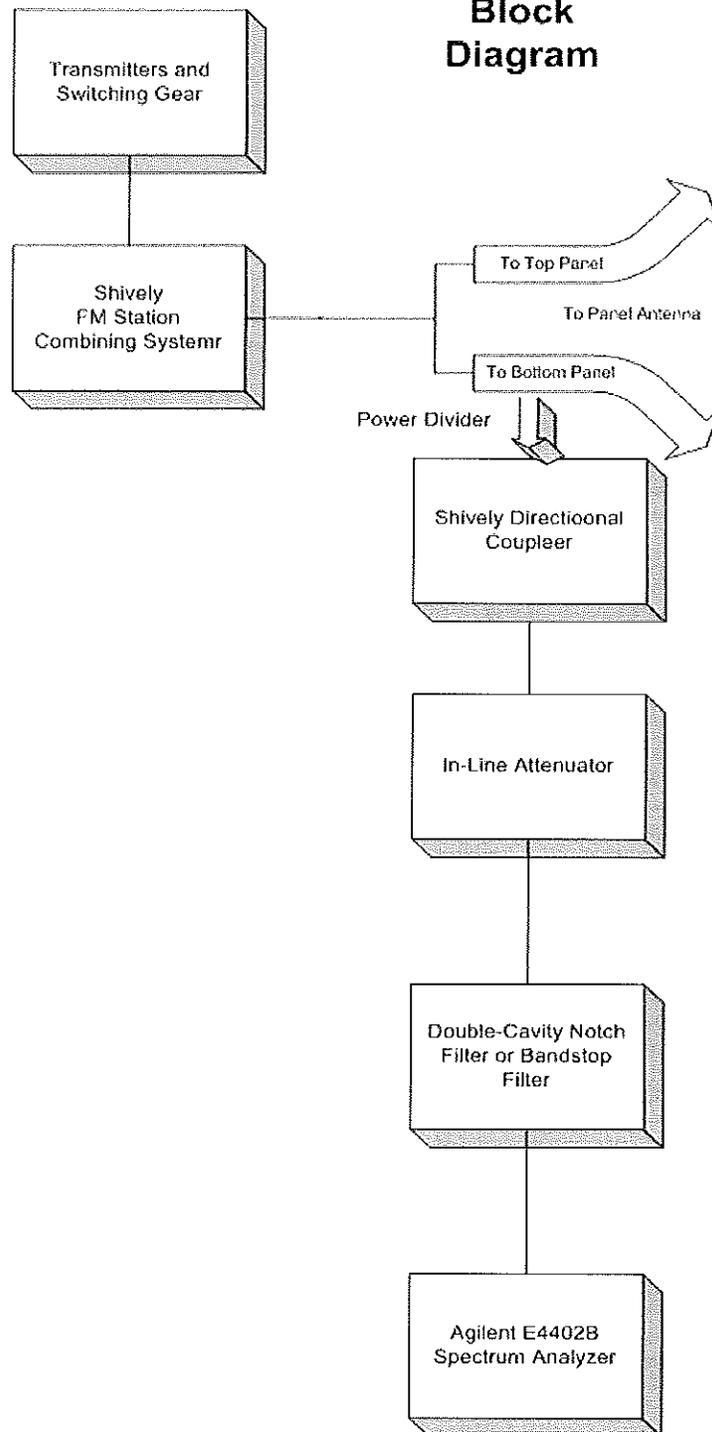
Agilent

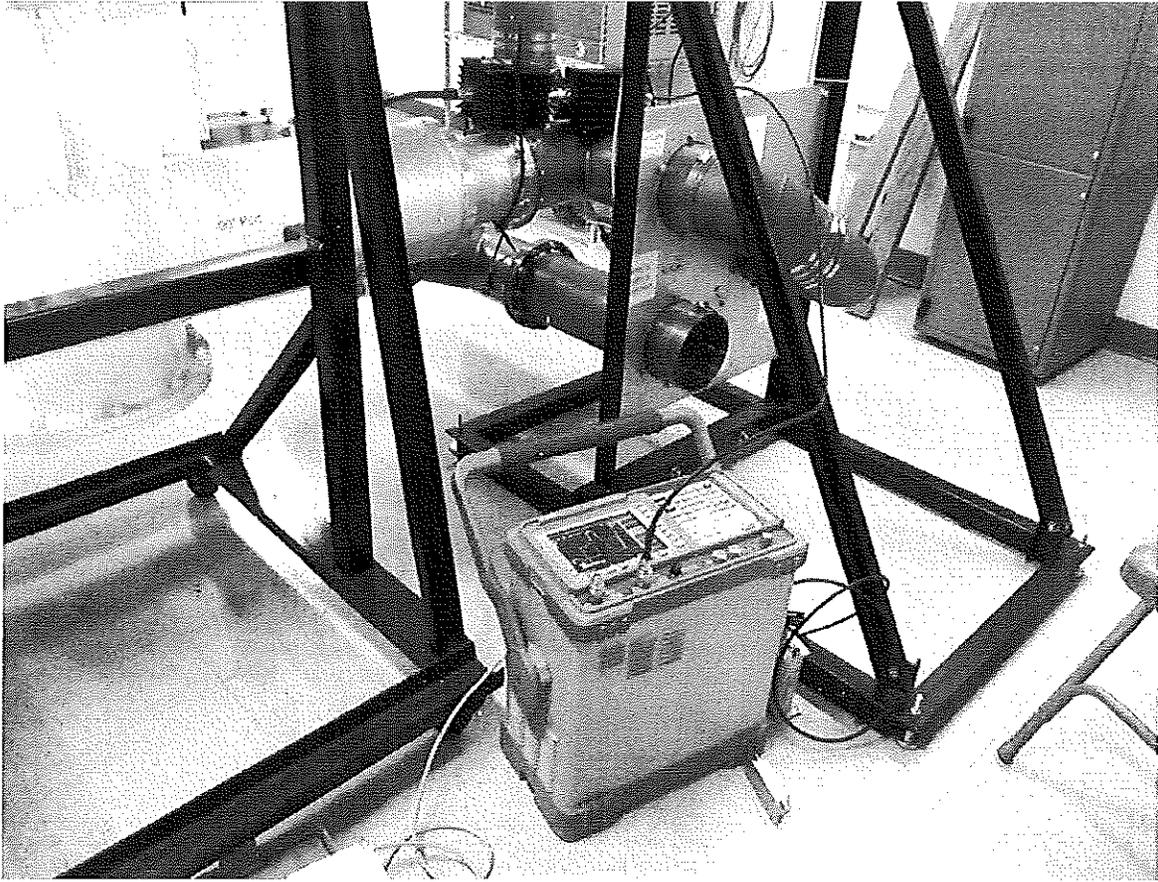
Agilent Technologies



900 to 1100 MHz

# Equipment Block Diagram





Equipment Test Setup

### 73.317 FM TRANSMISSION SYSTEM REQUIREMENTS

(a) FM broadcast stations employing transmitters authorized after January 1, 1960, must maintain the bandwidth occupied by their emissions in accordance with the specification detailed below. FM broadcast stations employing transmitters installed or type accepted before January 1, 1960, must achieve the highest degree of compliance with these specifications practicable with their existing equipment. In either case, should harmful interference to other authorized stations occur, the licensee shall correct the problem promptly or cease operation.

(b) Any emission appearing on a frequency removed from the carrier by between 120 kHz and 240 kHz inclusive must be attenuated 25 dB below the level of the unmodulated carrier. Compliance with this requirement will be deemed to show the occupied bandwidth to be 240 kHz or less.

(c) Any emission appearing on a frequency removed from the carrier by more than 240 kHz and up to and including 600 kHz must be attenuated at least 35 dB below the level of the unmodulated carrier.

(d) Any emission appearing on a frequency removed the carrier by more than 600 kHz must be attenuated at  $43 + 10\text{Log}(\text{Power in watts})$  dB below the level of the unmodulated carrier, or 80 dB, whichever is the lesser attenuation.