

AM Tests - Analog Performance in the presence of interferers

Lower 2nd adjacent channel interferers

Receiver : **DELCO**
 Model # : **16192463**
 Serial # : **1000039**
 Date Tested : 10/04/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Graphic Equalizer set to center positions
 AM Stereo set to OFF position
 Loudness set to OFF position

		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Lower 2nd adjacent channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	-36	7.9	8.2
	-18	40.8	40.3
	-12	44.3	44
	-6	47.2	47
	0	48.6	48.7
	6	49.3	49.2
-62 (Moderate)	-36	30	30.2
	-18	39.9	39.6
	-12	43.7	43.3
	-6	46.4	46.2
	0	48.3	48.3
	6	49.1	49.1
-77 (Weak)	-36	31.6	31.2
	-18	39.3	39.1
	-12	43.5	43.4
	-6	46.2	46
	0	47.4	47.2
	6	47.6	47.6

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 2nd adjacent channel interferers

Receiver : **FORD**
 Model # : **F4XF-19B132-CB**
 Serial # : **28115 0B700**
 Date Tested : 10/01/99

		Audio output power level for -47 dBm = 1.0 Watts	
		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Lower 2nd adjacent channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	-36	8.1	8.3
	-18	46.2	45.7
	-12	36-53	50.5
	-6	54.0	53.2
	0	54.6	54.3
	6	55.0	54.5
-62 (Moderate)	-36	29.4	28.9
	-18	46.8	45.9
	-12	50.3	50.0
	-6	51.5	51.4
	0	51.8	52.0
	6	51.9	52.1
-77 (Weak)	-36	30.4	29.1
	-18	42.7	43.2
	-12	44.8	45.1
	-6	45.0	45.5
	0	45.1	45.8
	6	45.2	45.8

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 2nd adjacent channel interferers

Receiver : PANASONIC
 Model # : RX-FS430
 Serial # : WP8JE52506
 Date Tested : 10/15/99

Receiver Settings: Tone Control set to center position
 Tuning adjusted until optimal combination of low distortion and high output power level at the volume setting obtained at test frequency & RF level

		Audio output power level for -47 dBm = 0.25 Watts	
		Desired Signal	
RF Level (dBm)	Lower 2nd adjacent channel interferer D/U level (dB)	Analog Interferer SNR (dB)	Hybrid Interferer SNR (dB)
-47 (Strong)	-36	13	11.7
	-18	5.0	5.0
	-12	16.0	15.0
	-6	33.4	31.1
	0	44.3	42.3
	6	52.0	51.0
-62 (Moderate)	-36	7.0	6.6
	-18	18.8	17.4
	-12	26.9	25.3
	-6	37.3	35.6
	0	45.5	44.8
	6	47.6	47.5
-77 (Weak)	-36	6.0	5.2
	-18	18.1	16.6
	-12	26.2	24.8
	-6	33.0	32.8
	0	34.4	34.9
	6	34.4	35.1

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 2nd adjacent channel interferers

Receiver : **PIONEER**
 Model # : **VSX-D307**
 Serial # : **SKDI083167US**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Dolby Pro-Logic set to OFF position
 Dolby Virtual set to OFF position
 Surround Sound set to OFF position
 DSP mode set to OFF position
 Loudness set to OFF position
 MPX mode turned ON to "mono" for AM and mono FM testing
 MPX mode turned OFF to "stereo" for stereo FM testing

Audio output power level for -47 dBm = 1.0 Watts			
Desired Signal			
	Lower 2nd adjacent channel interferer	Analog Interferer	Hybrid Interferer
RF Level (dBm)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	-36	6.7	6.6
	-18	19.4	18.4
	-12	31.7	30.7
	-6	43.1	41.9
	0	49.9	49.5
	6	51.3	51.3
-62 (Moderate)	-36	4.1	5
	-18	33.5	32
	-12	42.7	41.6
	-6	47.2	47.1
	0	48.6	48.4
	6	48.8	48.8
-77 (Weak)	-36	9.6	8.5
	-18	32.5	31.5
	-12	36.8	36.6
	-6	37.5	37.5
	0	37.6	37.7
	6	37.8	37.7

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1 HP3325B Function Generator #1 Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.

AM Tests - Analog Performance in the presence of interferers

Lower 2nd adjacent channel interferers

Receiver : **SONY**
 Model # : **STR-DE425**
 Serial # : **8839190**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 5.1 DVD input set to OFF position
 Bass Boost set to OFF position
 Surround Sound set to OFF position
 Setup mode set to NORMAL

Audio output power level for -47 dBm = 1.0 Watts			
Desired Signal			
RF Level (dBm)	Lower 2nd adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	-36	0.5	1.2
	-18	17.7	16.6
	-12	29.1	27.7
	-6	38.8	37.8
	0	45.5	44.9
	6	49.1	48.9
-62 (Moderate)	-36	3.2	3
	-18	26.2	25.2
	-12	34	33.3
	-6	40.1	39.8
	0	44.5	44.3
	6	46.9	46.8
-77 (Weak)	-36	1.6	0.6
	-18	25.7	24.9
	-12	32.5	32.1
	-6	36	36
	0	37.3	37.4
	6	37.7	37.7

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 1st adjacent channel interferers

Receiver : **DELCO**
 Model # : **16192463**
 Serial # : **1000039**
 Date Tested : 10/04/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Graphic Equalizer set to center positions
 AM Stereo set to OFF position
 Loudness set to OFF position

Audio output power level for -47 dBm = 1.2 Watts			
Desired Signal			
RF Level (dBm)	Lower 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	18.7	18
	12	25.7	24.7
	18	32.5	31.6
	24	38.6	37.8
	30	43.8	43
-62 (Moderate)	6	18.9	18
	12	25.8	24.6
	18	32.5	31.5
	24	38.6	37.8
	30	43.6	43.2
-77 (Weak)	6	19	18
	12	26.1	24.8
	18	32.7	31.7
	24	38.6	38
	30	43.4	43

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 1st adjacent channel interferers

Receiver : **FORD**
 Model # : **F4XF-19B132-CB**
 Serial # : **28115 0B700**
 Date Tested : 10/01/99

		Audio output power level for -47 dBm = 0.9 Watts	
		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	17.6	16.6
	12	23.6	22.5
	18	29.6	28.5
	24	35.6	34.6
	30	41.4	40.5
-62 (Moderate)	6	17.5	16.6
	12	23.5	22.7
	18	29.4	28.6
	24	35.4	34.6
	30	41.2	40.5
-77 (Weak)	6	17.4	16.5
	12	23.4	22.4
	18	29.3	28.4
	24	35	34.2
	30	40	39.5

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 1st adjacent channel interferers

Receiver : PANASONIC
 Model # : RX-FS430
 Serial # : WP8JE52506
 Date Tested : 10/15/99

Receiver Settings: Tone Control set to center position
 Tuning adjusted until optimal combination of low distortion and high output power level at the volume setting obtained at test frequency & RF level

		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	21.1	20.3
	12	27	26.1
	18	33	32.2
	24	38.9	38.2
	30	44.6	43.9
-62 (Moderate)	6	22.1	21.3
	12	28	27.3
	18	33.9	33.2
	24	39.3	38.7
	30	43.7	43.3
-77 (Weak)	6	21.7	21
	12	26.9	26.4
	18	31.1	30.7
	24	33.3	33.2
	30	34	34.3

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 1st adjacent channel interferers

Receiver : **PIONEER**
 Model # : **VSX-D307**
 Serial # : **SKDI083167US**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Dolby Pro-Logic set to OFF position
 Dolby Virtual set to OFF position
 Surround Sound set to OFF position
 DSP mode set to OFF position
 Loudness set to OFF position
 MPX mode turned ON to "mono" for AM and mono FM testing
 MPX mode turned OFF to "stereo" for stereo FM testing

Audio output power level for -47 dBm = 1.0 Watts			
Desired Signal			
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	Analog Interferer	Hybrid Interferer
		SNR (dB)	SNR (dB)
-47 (Strong)	6	19.5	18.6
	12	25.5	24.7
	18	31.5	30.6
	24	37.2	36.5
	30	42.7	42.2
-62 (Moderate)	6	19.6	18.6
	12	25.5	24.7
	18	31.3	30.6
	24	37.1	36.4
	30	42.4	41.9
-77 (Weak)	6	19.1	18.1
	12	24.8	24.1
	18	30	29.6
	24	34.2	33.9
	30	36.5	36.6

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Lower 1st adjacent channel interferers

Receiver : **SONY**
 Model # : **STR-DE425**
 Serial # : **8839190**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 5.1 DVD input set to OFF position
 Bass Boost set to OFF position
 Surround Sound set to OFF position
 Setup mode set to NORMAL

Audio output power level for -47 dBm = 1.0 Watts			
Desired Signal			
RF Level (dBm)	Lower 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	15.7	15
	12	21.7	21
	18	27.6	26.8
	24	33.6	32.8
	30	39.3	38.6
-62 (Moderate)	6	15.6	14.9
	12	21.6	20.8
	18	27.5	26.8
	24	33.4	32.7
	30	39	38.3
-77 (Weak)	6	15.5	14.8
	12	21.4	20.7
	18	27.1	26.6
	24	32	31.6
	30	35.4	35.3

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Co-channel interferers

Receiver : **DELCO**
 Model # : **16192463**
 Serial # : **1000039**
 Date Tested : 10/04/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Graphic Equalizer set to center positions
 AM Stereo set to OFF position
 Loudness set to OFF position

		Audio output power level for -47 dBm = 1.2 Watts	
		Desired Signal	
	Co-channel interferer	Analog Interferer	Hybrid Interferer
RF Level (dBm)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	18	25.6	21.5-24
	24	32	31.2
	30	38.4	37.6
	36	43.6	43.2
-62 (Moderate)	18	25.4	24.3
	24	29.8-32	31
	30	38.3-40.4	37.6
	36	43.6	43.1
-77 (Weak)	18	25.6	24.4
	24	30.5-32.5	31.4
	30	38.5	38
	36	43.4	43.2

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Co-channel interferers

Receiver : **FORD**
 Model # : **F4XF-19B132-CB**
 Serial # : **28115 0B700**
 Date Tested : 10/01/99

Audio output power level for -47 dBm = 1.0 Watts			
Desired Signal			
	Co-channel interferer	Analog Interferer	Hybrid Interferer
RF Level (dBm)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	18	25	22.1
	24	31.3	28.2
	30	37.3	34.3
	36	43.2	40.3
-62 (Moderate)	18	24.5	22
	24	30.5	28.3
	30	36.4	34
	36	42.2	40
-77 (Weak)	18	23.7	22.3
	24	29.9	29.2
	30	35.4	35
	36	40.4	40.3

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Co-channel interferers

Receiver : **PANASONIC**
 Model # : **RX-FS430**
 Serial # : **WP8JE52506**
 Date Tested : 10/18/99

Receiver Settings: Tone Control set to center position
 Tuning adjusted until optimal combination of low distortion and high output power level at the volume setting obtained at test frequency & RF level

		Audio output power level for -47 dBm = 0.25 Watts	
		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Co-channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	18	23.2-30.9	23.1-30.3
	24	30.4-37.8	28.6-35.8
	30	38.2-40	37.1-39
	36	40.1-45.5	42.9-44.6
-62 (Moderate)	18	21.6-31.3	22.6-30.1
	24	32.4-34.8	31.5-33.6
	30	38-40.3	37.4-39.5
	36	41.5-45	40-44.4
-77 (Weak)	18	22.7-30.4	22.3-29.8
	24	31-32.7	30.9
	30	34.7	34.1
	36	35.9	35.4

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Co-channel interferers

Receiver : **PIONEER**
 Model # : **VSX-D307**
 Serial # : **SKDI083167US**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Dolby Pro-Logic set to OFF position
 Dolby Virtual set to OFF position
 Surround Sound set to OFF position
 DSP mode set to OFF position
 Loudness set to OFF position
 MPX mode turned ON to "mono" for AM and mono FM testing
 MPX mode turned OFF to "stereo" for stereo FM testing

		Audio output power level for -47 dBm = 1.0 Watts	
		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Co-channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	18	25.6	24.6
	24	31.8	30.7
	30	37.9	36.6
	36	43.4	42.5
-62 (Moderate)	18	25.5	24.7
	24	31.7	30.7
	30	37.6	36.6
	36	43.2	42.1
-77 (Weak)	18	25.8	24.7
	24	30.8	29.8
	30	34.9	34.4
	36	36.9	36.6

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Co-channel interferers

Receiver : **SONY**
 Model # : **STR-DE425**
 Serial # : **8839190**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 5.1 DVD input set to OFF position
 Bass Boost set to OFF position
 Surround Sound set to OFF position
 Setup mode set to NORMAL

		Desired Signal	
		Analog Interferer	Hybrid Interferer
RF Level (dBm)	Co-channel interferer D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	18	24.2	22.7
	24	28.2-30.5	28.4
	30	32.4-36.6	32
	36	41.7	40.2
-62 (Moderate)	18	24	22.3
	24	27.6-30.4	28.3
	30	36	34.3
	36	41.3	39.9
-77 (Weak)	18	21.4-24.1	22.3
	24	30	28.3
	30	34.1	33
	36	36.7	35.9

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1640 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower and upper 1st adjacent channel interferers

Receiver : **DELCO**
 Model # : **16192463**
 Serial # : **1000039**
 Date Tested : 10/04/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Graphic Equalizer set to center positions
 AM Stereo set to OFF position
 Loudness set to OFF position

Audio output power level for -47 dBm = 1.2 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer	Upper 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U Level (dB)	D/U Level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	6	15.3	14.7
	12	12	22.1	21.3
	18	18	29.1	28.3
	24	24	35.6	34.9
	30	30	41.3	40.8
-62 (Moderate)	6	6	15.4	14.8
	12	12	22	21.3
	18	18	29	28.3
	24	24	35.5	34.8
	30	30	41.4	40.8
-77 (Weak)	6	6	15.4	14.9
	12	12	22.1	21.6
	18	18	29.3	28.6
	24	24	35.9	35.3
	30	30	41.4	40.9

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Unconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower and upper 1st adjacent channel interferers

Receiver : **FORD**
 Model # : **F4XF-19B132-CB**
 Serial # : **28115 0B700**
 Date Tested : 10/04/99

Audio output power level for -47 dBm = 1.1 Watts				
Desired Signal				
	Lower 1st adjacent channel interferer	Upper 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
RF Level (dBm)	D/U level (dB)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	6	14.3	13.9
	12	12	20.3	19.8
	18	18	26.2	25.8
	24	24	32.2	31.8
	30	30	38.2	37.7
-62 (Moderate)	6	6	14.2	13.8
	12	12	20.1	19.6
	18	18	26.1	25.7
	24	24	32	31.7
	30	30	38	37.6
-77 (Weak)	6	6	14.1	13.6
	12	12	20	19.6
	18	18	26	25.6
	24	24	31.8	31.4
	30	30	37.3	37.1

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower and upper 1st adjacent channel interferers

Receiver : PANASONIC
 Model # : RX-FS430
 Serial # : WP8JE52506
 Date Tested : 10/15/99

Receiver Settings: Tone Control set to center position
 Tuning adjusted until optimal combination of low distortion and high output power level at the volume setting obtained at test frequency & RF level

Audio output power level for -47 dBm = 0.25 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer	Upper 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U level (dB)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	6	18	17.4
	12	12	23.9	23.2
	18	18	29.8	29.3
	24	24	35.8	35.3
	30	30	41.7	41.2
-62 (Moderate)	6	6	18.3	17.8
	12	12	24.2	23.7
	18	18	30.2	29.6
	24	24	36	35.6
	30	30	41.1	40.5
-77 (Weak)	6	6	18.1	17.3
	12	12	23.7	23.2
	18	18	28.8	28
	24	24	32.4	31.7
	30	30	33.9	33

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz. modulated with a 1 kHz tone. set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1. HP3325B Function Generator #1. Summer Ckt #1 to add DC carrier.
 For the analog interferer. the analog only 9.5 kHz BW CD used and for the hybrid interferer. the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2. HP3325B Function Generator #2. Summer Ckt #2 to add DC carrier.
 For the analog interferer. the analog only 9.5 kHz BW CD used and for the hybrid interferer. the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone. 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present. where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower and upper 1st adjacent channel interferers

Receiver : **PIONEER**
 Model # : **VSX-D307**
 Serial # : **SKDI083167US**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Dolby Pro-Logic set to OFF position
 Dolby Virtual set to OFF position
 Surround Sound set to OFF position
 DSP mode set to OFF position
 Loudness set to OFF position
 MPX mode turned ON to "mono" for AM and mono FM testing
 MPX mode turned OFF to "stereo" for stereo FM testing

Audio output power level for -47 dBm = 1.0 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer	Upper 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
	D/U level (dB)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	6	16.9	16.3
	12	12	22.9	22.3
	18	18	28.9	28.2
	24	24	34.8	34.1
	30	30	40.5	39.9
-62 (Moderate)	6	6	17	16.2
	12	12	22.9	22.1
	18	18	28.8	28.1
	24	24	34.7	34.1
	30	30	40.3	39.5
-77 (Weak)	6	6	16.6	5.2-6.9
	12	12	22.5	11.3-12.5
	18	18	28.1	16.2-18.3
	24	24	32.9	20.1-22.2
	30	30	36.1	22.3-25.1

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Unconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower and upper 1st adjacent channel interferers

Receiver : **SONY**
 Model # : **STR-DE425**
 Serial # : **8839190**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 5.1 DVD input set to OFF position
 Bass Boost set to OFF position
 Surround Sound set to OFF position
 Setup mode set to NORMAL

Audio output power level for -47 dBm = 1.0 Watts				
Desired Signal				
	Lower 1st adjacent channel interferer	Upper 1st adjacent channel interferer	Analog Interferer	Hybrid Interferer
RF Level (dBm)	D/U level (dB)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	6	13.6	13.2
	12	12	19.6	19.1
	18	18	25.5	25.1
	24	24	31.5	31.1
	30	30	37.4	37
-62 (Moderate)	6	6	13.4	13.1
	12	12	19.4	19
	18	18	25.3	25
	24	24	31.3	31
	30	30	37	36.8
-77 (Weak)	6	6	12.9	13.1
	12	12	18.2-20.9	19
	18	18	24.6	24.9
	24	24	27.4-30.4	30.2
	30	30	34.1	34.5

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower 1st adjacent and co-channel interferers

Receiver : **DELCO**
 Model # : **16192463**
 Serial # : **1000039**
 Date Tested : 10/04/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Graphic Equalizer set to center positions
 AM Stereo set to OFF position
 Loudness set to OFF position

Audio output power level for -47 dBm = 1.2 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	Co-channel interferer D/U level (dB)	Analog Interferer SNR (dB)	Hybrid interferer SNR (dB)
-47 (Strong)	6	18	16.3	11.8-15.6
	12	24	23.1	22.3
	18	30	30.1	29.3
	24	36	36.4	35.6
-62 (Moderate)	6	18	16.3	12.9-15.7
	12	24	23.1	22.3
	18	30	30.1	29.2
	24	36	36.5	35.7
-77 (Weak)	6	18	16.5	12.2-16.4
	12	24	23.5	22.5
	18	30	30.3	29.6
	24	36	36.7	35.9

- Notes:
- Desired Signal: UISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Unconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

~~AM Tests - Analog Performance in the presence of interferers~~

Simultaneous lower 1st adjacent and co-channel interferers

Receiver : **FORD**

Model # : **F4XF-19B132-CB**

Serial # : **28115 0B700**

Date Tested : 10/04/99

		Audio output power level for -47 dBm = 1.1 Watts		
		Desired Signal		
	Lower 1st adjacent channel interferer D/U level (dB)	Co-channel interferer D/U level (dB)	Analog Interferer SNR (dB)	Hybrid interferer SNR (dB)
RF Level (dBm)				
-47 (Strong)	6	18	15.5	14.6
	12	24	21.5	20.7
	18	30	27.6	26.7
	24	36	33.5	32.6
-62 (Moderate)	6	18	11.7-17.7	14.5
	12	24	21.5	20.7
	18	30	27.5	26.6
	24	36	33.4	32.5
-77 (Weak)	6	18	11.7-17.7	14.5
	12	24	21.4	20.5
	18	30	27.3	26.5
	24	36	33.1	32.4

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz. modulated with a 1 kHz tone. set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Unconverter #1. HP3325B Function Generator #1. Summer Ckt #1 to add DC carrier. For the analog interferer. the analog only 9.5 kHz BW CD used and for the hybrid interferer. the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Unconverter #2. HP3325B Function Generator #2. Summer Ckt #2 to add DC carrier. For the analog interferer. the analog only 9.5 kHz BW CD used and for the hybrid interferer. the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone. 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present. where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower 1st adjacent and co-channel interferers

Receiver : PANASONIC
 Model # : RX-FS430
 Serial # : WP8JE52506
 Date Tested : 10/18/99

Receiver Settings: Tone Control set to center position
 Tuning adjusted until optimal combination of low distortion and high output power level at the volume setting obtained at test frequency & RF level

Audio output power level for -47 dBm = 0.25 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	Co-channel interferer D/U level (dB)	Analog Interferer SNR (dB)	Hybrid interferer SNR (dB)
-47 (Strong)	6	18	19.5	18.6
	12	24	25.9	25
	18	30	31.2	30.5
	24	36	37.2	36.4
-62 (Moderate)	6	18	19.5	18.8
	12	24	26.2	25.5
	18	30	32.2	31.5
	24	36	38	37.3
-77 (Weak)	6	18	19.6	18.5
	12	24	25.6	25
	18	30	30.7	30.4
	24	36	34.3	34.4

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz I.P.F. on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower 1st adjacent and co-channel interferers

Receiver : **PIONEER**
 Model # : **VSX-D307**
 Serial # : **SKDI083167US**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 Dolby Pro-Logic set to OFF position
 Dolby Virtual set to OFF position
 Surround Sound set to OFF position
 DSP mode set to OFF position
 Loudness set to OFF position
 MPX mode turned ON to "mono" for AM and mono FM testing
 MPX mode turned OFF to "stereo" for stereo FM testing

Audio output power level for -47 dBm = 1.0 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer D/U level (dB)	Co-channel interferer D/U level (dB)	Analog Interferer SNR (dB)	Hybrid interferer SNR (dB)
-47 (Strong)	6	18	18.3	17.4
	12	24	24.1	23.4
	18	30	30.1	29.5
	24	36	36	35.4
-62 (Moderate)	6	18	18.2	17.7
	12	24	24.2	23.4
	18	30	30.2	29.3
	24	36	35.9	35.4
-77 (Weak)	6	18	17.7	17.1
	12	24	23.6	23.1
	18	30	29.2	28.5
	24	36	33.6	33.4

- Notes:
- Desired Signal: IISADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier. For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used. - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.

AM Tests - Analog Performance in the presence of interferers

Simultaneous lower 1st adjacent and co-channel interferers

Receiver : **SONY**
 Model # : **STR-DE425**
 Serial # : **8839190**
 Date Tested : 10/05/99

Receiver Settings: Balance, Bass and Treble set to center positions
 5.1 DVD input set to OFF position
 Bass Boost set to OFF position
 Surround Sound set to OFF position
 Setup mode set to NORMAL

Audio output power level for -47 dBm = 1.0 Watts				
Desired Signal				
RF Level (dBm)	Lower 1st adjacent channel interferer	Co-channel interferer	Analog Interferer	Hybrid interferer
	D/U level (dB)	D/U level (dB)	SNR (dB)	SNR (dB)
-47 (Strong)	6	18	14.7	13.9
	12	24	20.5	19.9
	18	30	26.5	25.9
	24	36	32.5	31.8
-62 (Moderate)	6	18	14	13.7
	12	24	20.2	19.7
	18	30	26.2	25.8
	24	36	32	31.7
-77 (Weak)	6	18	11.6	13.8
	12	24	17.6	19.8
	18	30	18.3-19.5	25.6
	24	36	23.8	30.8

- Notes:
- Desired Signal: USADR AM Exciter Module - 1660 kHz, modulated with a 1 kHz tone, set to 100% modulation.
 - Undesired #1 Analog and Hybrid Signals: Xetron Upconverter #1, HP3325B Function Generator #1, Summer Ckt #1 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1670 kHz, set to 100% modulation using a 1 kHz tone.
 - Undesired #2 Analog and Hybrid Signals: Xetron Upconverter #2, HP3325B Function Generator #2, Summer Ckt #2 to add DC carrier.
 For the analog interferer, the analog only 9.5 kHz BW CD used and for the hybrid interferer, the hybrid with 4.5 kHz analog and 140% peak clip CD used, - 1650 kHz, set to 100% modulation using a 1 kHz tone.
 - SNR measurements performed with a 1 kHz tone, 100% modulation.
 - The SNR for the desired signal was measured by taking the ratio of the audio output with the desired signal and interferers present, where the desired signal was modulated using a 1 kHz tone, to the audio output level with an unmodulated desired signal and interferers present.
 - The modulation level of the desired and interfering signals set using an oscilloscope.
 - Measurements made using a CCIR weighting filter and a quasi-peak detector.
 - All measurements made using the 30 kHz LPF on the HP 8903B turned on.