ELECTRONICS RESEARCH, INC. ERI

Report Of
Intermodulation Product Findings

Dallas, TX.

KXPS – 92.5 MHz.
KHKS – 105.7 MHz.

Project# 39936

September 29, 2023

Electronics Research Inc.
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Chandler, Indiana 47610
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Report of Findings for Intermodulation Product Measurements

Exhibits Accompanying This Report

REPORT OF FINDINGS
BETHALTO, ILLINOIS
BROADCAST FACILITY

Introduction: This report of findings is based on data collected at the FM broadcast facility located in Cedar Hill, TX. The report includes measurements offered as proof that the combined operations of KXPS (92.5 MHz.) and KHKS (106.1 MHz.) transmitters are in compliance with the FCC Rules and Regulations as required by the Code of Federal Regulations (CFR) Title 47 section 73.317 paragraph (b) through (d). In brief, the collection of measurements presented in this report shows that all possible third order inter-modulation (IM) products generated by this diplexed system are less than the maximum allowable level as required by section 73.317 (b) through (d). KSCS (96.3 MHz.) and KPLX (99.5 MHz.), operate into separate antennas co-located on the tower. Their effects on the stations operating from the diplexed system are considered in this report. Jeff Taylor of Electronics Research, Inc. located in Chandler, Indiana performed the measurements summarized herein on September 29, 2023.

The following exhibits are provided:

Exhibit A:
- A-1 Drawing Depicting Antenna.
- A-2 SHPX-8C6-SP Antenna Specification Sheet.
- A-3 Drawing Depicting Diplexed Scheme.
- A-4 Diplexer Specification Sheet.

Exhibit B:
- B-1 Equipment Employed in Intermodulation Product Measurements.
- B-2 Broadcasting Scheme of the Diplexed Systems.

Table 1. Carrier Reference Levels.
Table 2. Calculated Third Order Products.
Table 3. Intermodulation Analysis Measurements.

Exhibits Accompanying Report: Exhibit A provides comprehensive information on both antenna and filters used by these radio stations. Exhibit B illustrates the broadcasting scheme of each station, the layout of the equipment used to isolate and measure potential intermodulation products and forward carrier reference levels. Found within Table 1 are the narrow band carrier frequency measurements that provide relative output signal levels for the IM analysis. Table 2 lists the calculated third order products that can be generated from FM transmitters broadcasting from the diplexed system. The IM Analysis Measurements, in Table 3, provides detailed information obtained from the product frequency investigation.

The Nature of Intermodulation Products (IM): Intermodulation products result from inadequate transmitter-to-transmitter isolation. Intermodulation products are commonly generated from radio stations operating into multiplexed facilities and congested antenna broadcast sites. The mechanics associated with the phenomenon have been well documented. When two or more transmitters are coupled to each other, new spectral components are produced by the mixing of the station frequencies in the active circuits of each transmitter. The common term used to describe this phenomenon is third order product denoted by the mathematical expression $[2(F_1)-(F_2)]$, where F_1 signifies the frequency of the transmitter that is generating the intermodulation product, and F2 signifies the frequency causing the interference.

The Multiplexed System: These measurements were taken with both FM stations operating from the antenna system. The KXPS and KHKS diplexed system is fundamentally comprised of antenna, feed line and diplexer unit. The SHPX-8C6-SP antenna, 783-3A "T" combiner units and 4 1/16" rigid feedline are products of Electronics Research, Inc.
Refer to Exhibit B-1, for an illustration of the Broadcasting Scheme of these stations.

To accomplish the aggregation of two transmitter signals into a common feed and provide transmitter-to-transmitter isolation, a diplexed scheme consisting of two 783-3A band pass modules were installed. Specifically, the combiner uses one 783-3A band pass module for frequency (92.5 MHz.) and (106.1 MHz.). An interconnecting "T" is required to complete the combiner. The "T" combiner, fully assembled, exhibited transmitter port-to-port isolation in excess of -80 dB. Other performance measurements, such as match, loss, group-delay, etc, revealed that the "T" combiner was in proper working order. Refer to Exhibit A-4 for the Combiner Specification Sheet.

The IM Investigation: Directional couplers were placed at key locations throughout the combiner to monitor and maintain the diplexer's performance. All couplers furnished with the system are factory calibrated and capable of delivering accurate and repeatable RF measurements. To facilitate the taking of the measurements, the coupler located at the antenna output of the diplexed system was used. Care was taken in the selection of the measurement location to ensure that the measurements would be made far removed from transmitters and any filtering used to reduce broadcast emissions. The coupler selected would normally be used for antenna reflection measurements and thus would provide greater than -32 dB directivity and a forward signal sample of -49 dB.

The forward port of the coupler was used for sampling the outgoing carrier levels and IM products. The IM sampled signal was fed by shielded cable into a Band Pass Filter where all extraneous energy was steeply attenuated. Various attenuation pads were used, when needed, on the band pass filter and/or the Spectrum Analyzer to ensure an adequate signal level for measurements without overloading the measurement equipment. A Rohde & Schwarz ZPH Model .12 Spectrum Analyzer serial# 103069 was employed to record the level of all signals investigated. A Rohde & Schwarz Network Analyzer serial# 100396 was used for selective tuning of the Band Pass Filter. The Rohde & Schwarz Spectrum Analyzer was also used to measure the close in spectral attenuation of each carrier and wide band search for any anomalies that may need further investigation. See attached Exhibit B-1 for an illustration of the measurement equipment.

Prior to recording measurements, all pertinent broadcasting equipment including Transmitters, Diplexer, Feed Line and Antenna were adjusted to optimal performance. Also, it was confirmed before taking any measurements that all transmitters were operating at full licensed power. From the equipment setup described above, the relative output signal level of each stations forward carrier was made. The resulting signal levels of these measurements are listed in Table 1, column labeled "Adjusted Level". This level will be used as the reference level for possible IM products of each carrier and was necessary to confirm that no significant levels of spurious energy, referenced to each carrier, were present from any transmitter operating from the diplexed system.

Table 1 - Carrier Reference Levels.

Carrier Frequency (MHz)	Pad One (dB)	Full Scale Range (dB)	Scale Reading (dBm)	**Carrier Level (dBm)**	Notes
KXPS 92.5	**10**	**---**	**14.4**	**24.4**	
KHKS 106.1	**10**	**---**	**15.5**	**25.5**	

Predictable third-order products due to system harmonics mixed with all on-site interfering frequencies that could be generated from the diplexed system are calculated and listed in Table 2.

Table 2 - Third order Products.

	Carrier Frequencies	
Interfering Frequencies	**92.5**	**106.1**
92.5 MHz.	----	119.7
96.3 MHz.	88.7	115.9
99.5 MHz.	85.5	112.7
106.1 MHz.	78.9	----

Using the equipment previously described the IM product measurements were recorded and are listed in Table 3. The signal levels referenced to the carriers are calculated and listed in the column labeled "Level Referenced to Carrier". Refer to Exhibit B-2 for a layout of the measurement equipment.

Table 3 – Intermodulation Measurements on "T" Combiner

IM Measurements Taken in Cedar Hill, Texas										
Product Frequency (MHz)	**Transmitter Frequency (MHz)**	**Interfering Frequency (MHz)**	**Pad (dB)**	**Bandpass Filter Loss (dB)**	**Total Loss**	**Measured Level (dBm)**	**Adjusted Level (dBm)**	**Carrier Reference Level (dBm)**	**Level Referenced to Carrier (dBm)**	**Notes***
Transmitter Mixes										
	92.5	**Ref.**	10		10	14.4	24.4	**24.4**		
	106.1	**Ref.**	10		10	15.5	25.5	**25.5**		
78.9	92.5	106.1	10	11.8	21.8	-99.7	-77.9	24.4	**-102.3**	
85.5	92.5	99.5	10	10.9	20.9	-101.3	-80.4	24.4	**-104.8**	
88.7	92.5	96.3	10	10.8	20.8	-105.8	-85	24.4	**-109.4**	
112.7	106.1	99.5	10	9.9	19.9	-106.2	-86.3	25.5	**-111.8**	
115.9	106.1	96.3	10	10.1	20.1	-106.4	-86.3	25.5	**-111.8**	
119.7	106.1	92.5	10	9.9	19.9	-105.5	-92.1	25.5	**-111.1**	

The Spectrum Analyzer was used to check the close in spectral attenuation of the carrier to confirm the operation of the transmitter are in compliance with Sections (b) and (c) of the FCC Rules and Regulations.

As a final proof of the systems IM Product performance, a wide band search was undertaken using the Spectrum Analyzer. The purpose for this measurement was to look for suspicious anomalies that may warrant further investigation. My search ranged the complete frequency span of the receiver and resulted in no additional investigations.

Conclusion: Based upon my observations and measurements taken on September 29, 2023 as summarized in this document, I, Jeff Taylor, find the subject system, specifically the transmitters and filter system for the operation of KXPS and KHKS into the antenna to be in proper working order. Furthermore, based on the measured data, it is my opinion that there are no inter-modulation products in excess of -80 dB below carrier levels generated from or within the station operating on the installed system. Based on this recorded data, I conclude that KXPS and KHKS are in compliance with the requirements of Section 73.317 paragraph (b) through (d) of the FCC Rules and Regulations.

Respectfully submitted,
Electronics Research, Inc.

Jeff Taylor, Field Technician

State of Indiana)
) SS:
County of Warrick)

AFFIDAVIT

I, Jeff Taylor, hereby declare that the following statements are true and correct to the best of my knowledge and belief :

1.) I am a Field Technician for Electronics Research, Inc ("ERI ") and have been employed by ERI for 26 years. I am familiar with and have assisted in the design, manufacturing and installation of FM Antennas and FM Diplexers in my long tenure with ERI.

2.) I have either prepared and/or directly supervised the preparation of all technical information contained in this Report of Findings and to my knowledge to be accurate and true.

3.) ERI has been requested by Vertical Bridge on behalf of radio Stations KZPS and KHKS Dallas, TX. to prepare this Report Of Findings.

Jeff Taylor; Field Technician

Jeff Taylor

Subscribed and sworn to before me on this 2nd, day of October, 2023.

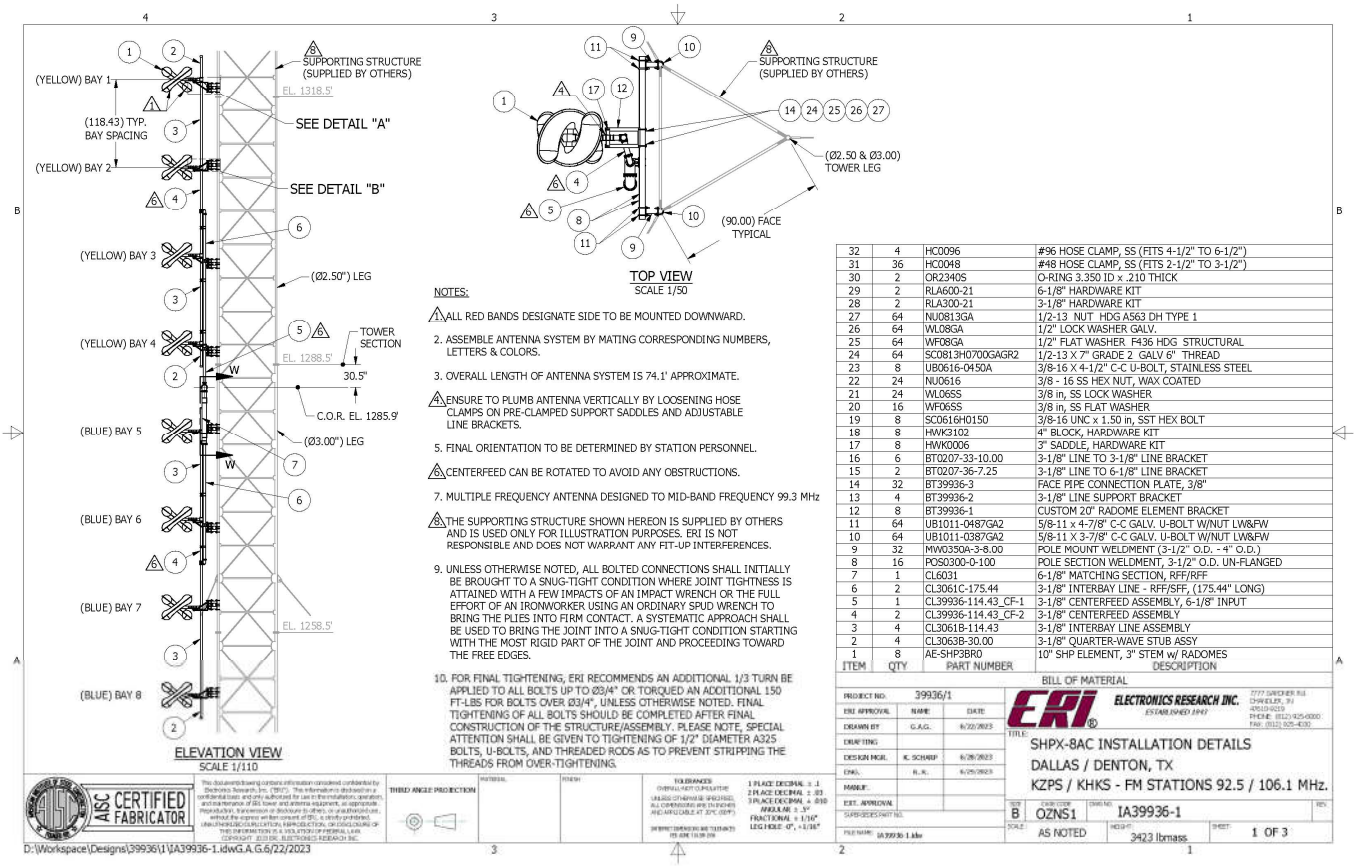
Cindy D Tomes; Notary Public
My commission expires September 17, 2030

Cindy D Tomes

NOTARY PUBLIC SEAL INDIANA
CINDY D TOMES
Notary Public, State of Indiana
Warrick County
Commission Number NP0658197
My Commission Expires
September 17, 2030

8

EXHIBIT, A-1



NOTES:

1. ALL RED BANDS DESIGNATE SIDE TO BE MOUNTED DOWNWARD.
2. ASSEMBLE ANTENNA SYSTEM BY MATING CORRESPONDING NUMBERS, LETTERS & COLORS.
3. OVERALL LENGTH OF ANTENNA SYSTEM IS 74.1' APPROXIMATE.
4. ENSURE TO PLUMB ANTENNA VERTICALLY BY LOOSENING HOSE CLAMPS ON PRE-CLAMPED SUPPORT SADDLES AND ADJUSTABLE LINE BRACKETS.
5. FINAL ORIENTATION TO BE DETERMINED BY STATION PERSONNEL.
6. CENTERFEED CAN BE RATED TO AVOID ANY OBSTRUCTIONS.
7. MULTIPLE FREQUENCY ANTENNA DESIGNED TO MID-BAND FREQUENCY 99.3 MHz
8. THE SUPPORTING STRUCTURE SHOWN HEREON IS SUPPLIED BY OTHERS AND IS USED ONLY FOR ILLUSTRATION PURPOSES. ERI IS NOT RESPONSIBLE AND DOES NOT WARRANT ANY FIT-UP INTERFERENCES.
9. UNLESS OTHERWISE NOTED, ALL BOLTED CONNECTIONS SHALL INITIALLY BE BROUGHT TO A SNUG-TIGHT CONDITION WHERE JOINT TIGHTNESS IS ATTAINED WITH A FEW IMPACTS OF AN IMPACT WRENCH OR THE FULL EFFORT OF AN IRONWORKER USING AN ORDINARY SPUD WRENCH TO BRING THE PLIES INTO FIRM CONTACT. A SYSTEMATIC APPROACH SHALL BE USED TO BRING THE JOINT INTO A SNUG-TIGHT CONDITION STARTING WITH THE MOST RIGID PART OF THE JOINT AND PROCEEDING TOWARD THE FREE EDGES.
10. FOR FINAL TIGHTENING, ERI RECOMMENDS AN ADDITIONAL 1/3 TURN BE APPLIED TO ALL BOLTS UP TO Ø3/4" OR TORQUED AN ADDITIONAL 150 FT-LBS FOR BOLTS OVER Ø3/4", UNLESS OTHERWISE NOTED. FINAL TIGHTENING OF ALL BOLTS SHOULD BE COMPLETED AFTER FINAL CONSTRUCTION OF THE STRUCTURE/ASSEMBLY. PLEASE NOTE, SPECIAL ATTENTION SHALL BE GIVEN TO TIGHTENING OF 1/2" DIAMETER A325 BOLTS, U-BOLTS, AND THREADED RODS AS TO PREVENT STRIPPING THE THREADS FROM OVER-TIGHTENING.

ITEM	QTY	PART NUMBER	DESCRIPTION
32	4	HC0096	#96 HOSE CLAMP, SS (FITS 4-1/2" TO 6-1/2")
31	36	HC0048	#48 HOSE CLAMP, SS (FITS 2-1/2" TO 3-1/2")
30	2	OR2340S	O-RING 3.350 ID x .210 THICK
29	2	RLA600-21	6-1/8" HARDWARE KIT
28	2	RLA300-21	3-1/8" HARDWARE KIT
27	64	NU0813GA	1/2-13 NUT HDG A563 DH TYPE 1
26	64	WL08GA	1/2" LOCK WASHER GALV.
25	64	WF08GA	1/2" FLAT WASHER F436 HDG STRUCTURAL
24	64	SC0813H0700GAGR2	1/2-13 X 7" GRADE 2 GALV 6" THREAD
23	8	UB0616-0450A	3/8-16 X 4-1/2" C-C U-BOLT, STAINLESS STEEL
22	24	NU0616	3/8 - 16 SS HEX NUT, WAX COATED
21	24	WL06SS	3/8 in, SS LOCK WASHER
20	16	WF06SS	3/8 in, SS FLAT WASHER
19	8	SC0616H0150	3/8-16 UNC x 1.50 in, SST HEX BOLT
18	8	HWK3102	4" BLOCK, HARDWARE KIT
17	8	HWK0006	3" SADDLE, HARDWARE KIT
16	6	BT0207-33-10.00	3-1/8" LINE TO 3-1/8" LINE BRACKET
15	2	BT0207-36-7.25	3-1/8" LINE TO 6-1/8" LINE BRACKET
14	32	BT39936-3	FACE PIPE CONNECTION PLATE, 3/8"
13	4	BT39936-2	3-1/8" LINE SUPPORT BRACKET
12	8	BT39936-1	CUSTOM 20" RADOME ELEMENT BRACKET
11	64	UB1011-0487GA2	5/8-11 x 4-7/8" C-C GALV. U-BOLT W/NUT LW&FW
10	64	UB1011-0387GA2	5/8-11 X 3-7/8" C-C GALV. U-BOLT W/NUT LW&FW
9	32	MW0350A-3-8.00	POLE MOUNT WELDMENT (3-1/2" O.D. - 4" O.D.)
8	16	POS0300-0-100	POLE SECTION WELDMENT, 3-1/2" O.D. UN-FLANGED
7	1	CL6031	6-1/8" MATCHING SECTION, RFF/RFF
6	2	CL3061C-175.44	3-1/8" INTERBAY LINE - RFF/SFF, (175.44" LONG)
5	1	CL39936-114.43_CF-1	3-1/8" CENTERFEED ASSEMBLY, 6-1/8" INPUT
4	2	CL39936-114.43_CF-2	3-1/8" CENTERFEED ASSEMBLY
3	4	CL3061B-114.43	3-1/8" INTERBAY LINE ASSEMBLY
2	4	CL3063B-30.00	3-1/8" QUARTER-WAVE STUB ASSY
1	8	AE-SHP3BR0	10' SHP ELEMENT, 3" STEM w/ RADOMES

BILL OF MATERIAL

ELECTRONICS RESEARCH INC. ESTABLISHED 1947

TITLE: SHPX-8AC INSTALLATION DETAILS
DALLAS / DENTON, TX
KZPS / KHKS - FM STATIONS 92.5 / 106.1 MHz.

PROJECT NO:	39936/1	
ERI APPROVAL	NAME	DATE
DRAWN BY	G.A.G.	6/22/2023
DRAFTING		
DESIGN MGR.	K. SCHARP	6/26/2023
ENG.	R. K.	6/25/2023
MANUF.		
EXT. APPROVAL		

SUPERSEDES PART NO.
FILE NAME: IA39936-1.idw

SIZE: B | CAGE CODE: OZNS1 | DWG NO: IA39936-1 | REV:
SCALE: AS NOTED | WEIGHT: 3423 lbsmass | SHEET: 1 OF 3

ASC CERTIFIED FABRICATOR

THIRD ANGLE PROJECTION

D:\Workspace\Designs\39936\1\IA39936-1.idwG.A.G.6/22/2023

92.5 95.3 104.5 107.7

A-2 ERI Antenna Specification Sheet

TRANSMISSION SITE
DALLAS, TEXAS

General Specifications

Antenna Type ……High Power FM-Broadcast, Suitable for Diplexing
Model Number SHPX-8C6-SP
Number of Bay Levels .....Eight
Polarization..... Right Hand Circular Polarized

Electrical Specifications

Antenna Input Power Capability . . . . . 66 kW Max (1)
Operating Frequency Band ..... 92.5 ~ 106.1 Megahertz.
VSWR. . . . . <1.02:1 @ Operating Frequencies(2)
Azimuthal Pattern Circularity ..... Better Then +/- 2dB From RMS (Free Space)
Power Split ..... 50/50 (Horizontal & Vertical)
Frequency Specific Information:

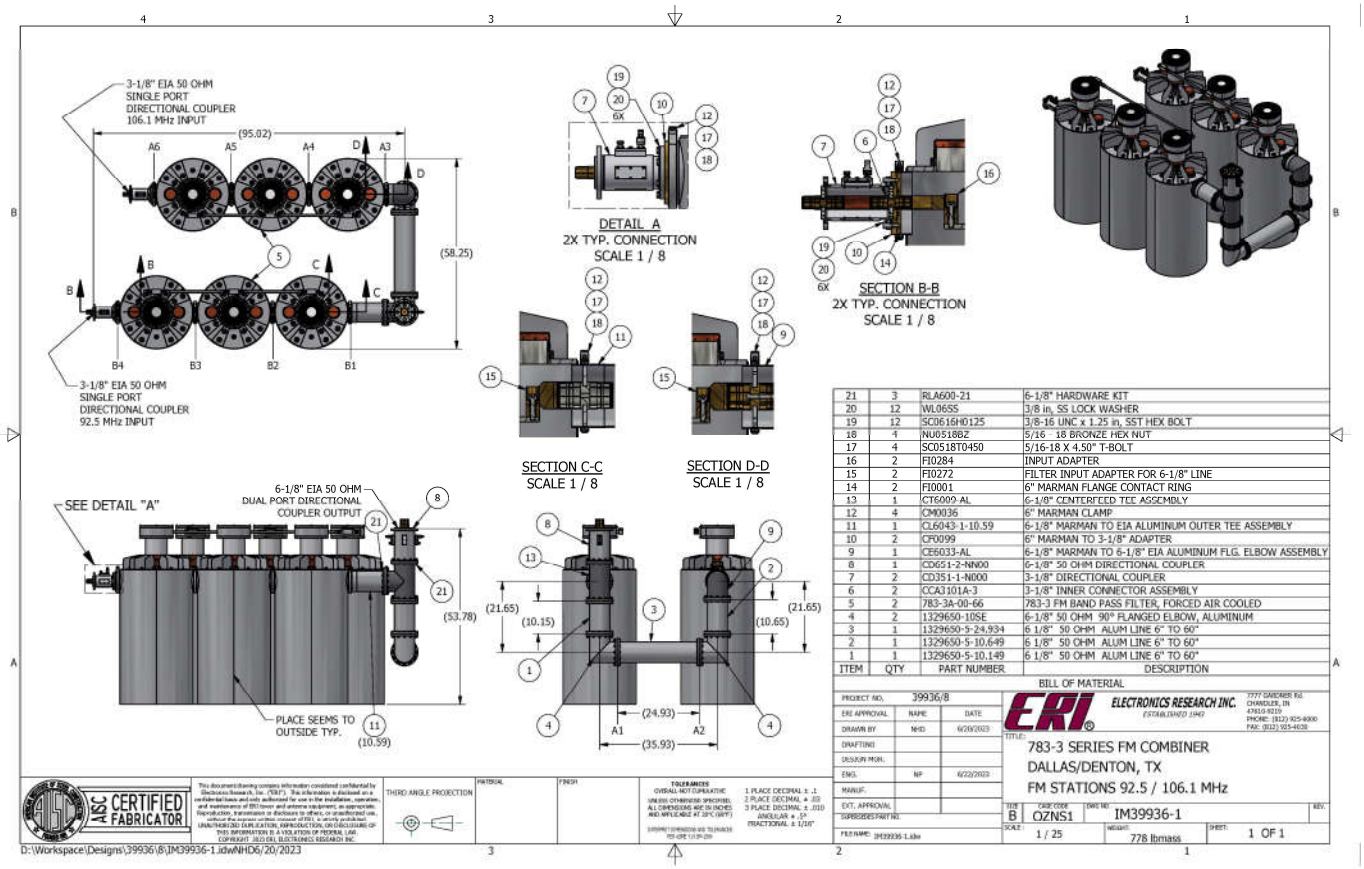
Frequency	Station ERP	Beam Tilt	First Null Fill	Second Null Fill	Power Gain	Line Loss (3)	Filter Loss (4)	Computed TPO
92.5	**100 KW**	**0.0°**	**0.0 %**	**15.0 %**	**4.173**	**-1.037 dB**	**-0.159 dB**	**31.56 kW**
106.1	**100 KW**	**0.0°**	**0.0 %**	**15.0 %**	**3.954**	**-1.112 dB**	**-0.168 dB**	**33.96 kW**

Mechanical Specifications

Antenna Feed System.....Single Input
Input Connector ……6 1/8”50-Ohm EIA Flanged
Element Deicing.....None
Interbay Spacing..... 118.43” Center to Center
Array Length ..... 74.1 Feet
Construction Material (Antenna)..... Brass and Stainless Steel

1) Power Capability Has Been Rated Assuming an Operating Transmission VSWR of 1.5:1
2) VSWR Specification Achieved After on Site Tuning for User Specific Frequencies.
3) Line Loss Assumes a Feed Run of 1454 Feet of ERI MACXLine 450 Standard 3 1/8” Rigid 17.5 Foot Sticks.
4) Losses Taken from Actual Combiner.

EXHIBIT A-3



ITEM	QTY	PART NUMBER	DESCRIPTION
21	3	RLA600-21	6-1/8" HARDWARE KIT
20	12	WL06SS	3/8 in, SS LOCK WASHER
19	12	SC0616H0125	3/8-16 UNC x 1.25 in, SST HEX BOLT
18	4	NU0518B2	5/16 - 18 BRONZE HEX NUT
17	4	SC0518T0450	5/16-18 X 4.50" T-BOLT
16	2	FI0284	INPUT ADAPTER
15	2	FI0272	FILTER INPUT ADAPTER FOR 6-1/8" LINE
14	2	FI0001	6" MARMAN FLANGE CONTACT RING
13	1	CT6000-AL	6-1/8" CENTERFEED TEE ASSEMBLY
12	4	CM0036	6" MARMAN CLAMP
11	1	CL6043-1-10.59	6-1/8" MARMAN TO EIA ALUMINUM OUTER TEE ASSEMBLY
10	2	CF0099	6" MARMAN TO 3-1/8" ADAPTER
9	1	CE6033-AL	6-1/8" MARMAN TO 6-1/8" EIA ALUMINUM FLG. ELBOW ASSEMBLY
8	1	CD651-2-NN00	6-1/8" 50 OHM DIRECTIONAL COUPLER
7	2	CD351-1-N000	3-1/8" DIRECTIONAL COUPLER
6	2	CCA3101A-3	3-1/8" INNER CONNECTOR ASSEMBLY
5	2	783-3A-00-66	783-3 FM BAND PASS FILTER, FORCED AIR COOLED
4	2	1329650-10SE	6-1/8" 50 OHM 90° FLANGED ELBOW, ALUMINUM
3	1	1329650-5-24,934	6 1/8" 50 OHM ALUM LINE 6" TO 60"
2	1	1329650-5-10.649	6 1/8" 50 OHM ALUM LINE 6" TO 60"
1	1	1329650-5-10.149	6 1/8" 50 OHM ALUM LINE 6" TO 60"

BILL OF MATERIAL

PROJECT NO.	39936/8	
ERI APPROVAL	NAME	DATE
DRAWN BY	NHD	6/20/2023
DRAFTING		
DESIGN MGR.		
ENG.	NP	6/22/2023
MANUF.		
EXT. APPROVAL		
SUPERSEDES PART NO.		
FILE NAME: IM39936-1.idw		

ELECTRONICS RESEARCH INC.
ESTABLISHED 1947
7777 GARDNER Rd
CHANDLER, IN
47610-9219
PHONE: (812) 925-6000
FAX: (812) 925-4628

TITLE:
783-3 SERIES FM COMBINER
DALLAS/DENTON, TX
FM STATIONS 92.5 / 106.1 MHz

SIZE	CAGE CODE	DWG NO.	REV.
B	OZNS1	IM39936-1	
SCALE: 1 / 25	WEIGHT: 778 lbmass	SHEET: 1 OF 1	

A-4 ERI "T" Combiner Specification Sheet

TRANSMISSION SITE
DALLAS, TEXAS

General Specifications:

Diplexer Type ..... 783-3A "T" Combiner
Number of Combining Units ..... Two
Injected Port to Injected Port Isolation ..... < - 80 dB
Output Connector ..... 6 1/8 "50 Ohm EIA (Flanged)
Output Power (Designed) ..... 66 kW(1)

Heat Removal ..... Forced Air Cooling
Physical Arrangement ..... Floor Standing

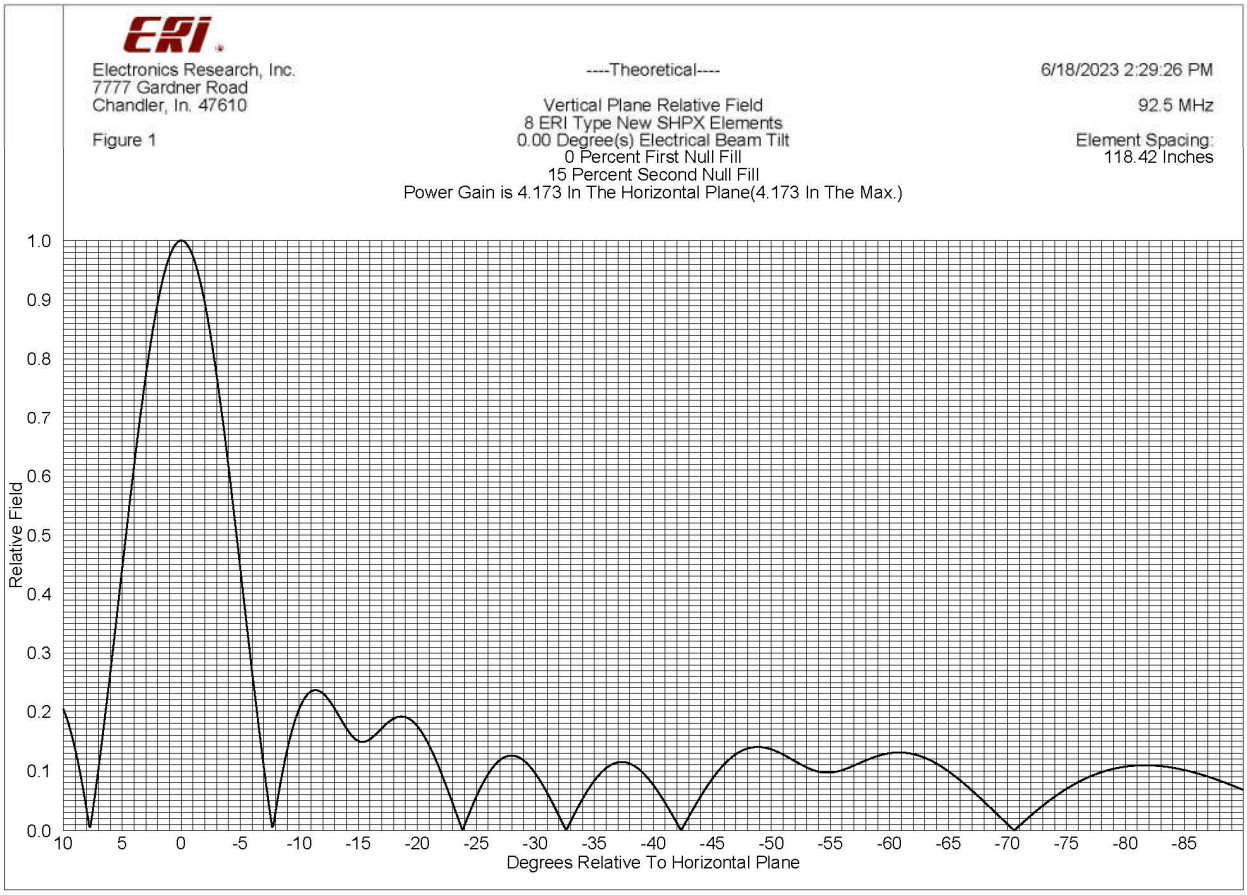
Injected Port Specifications:

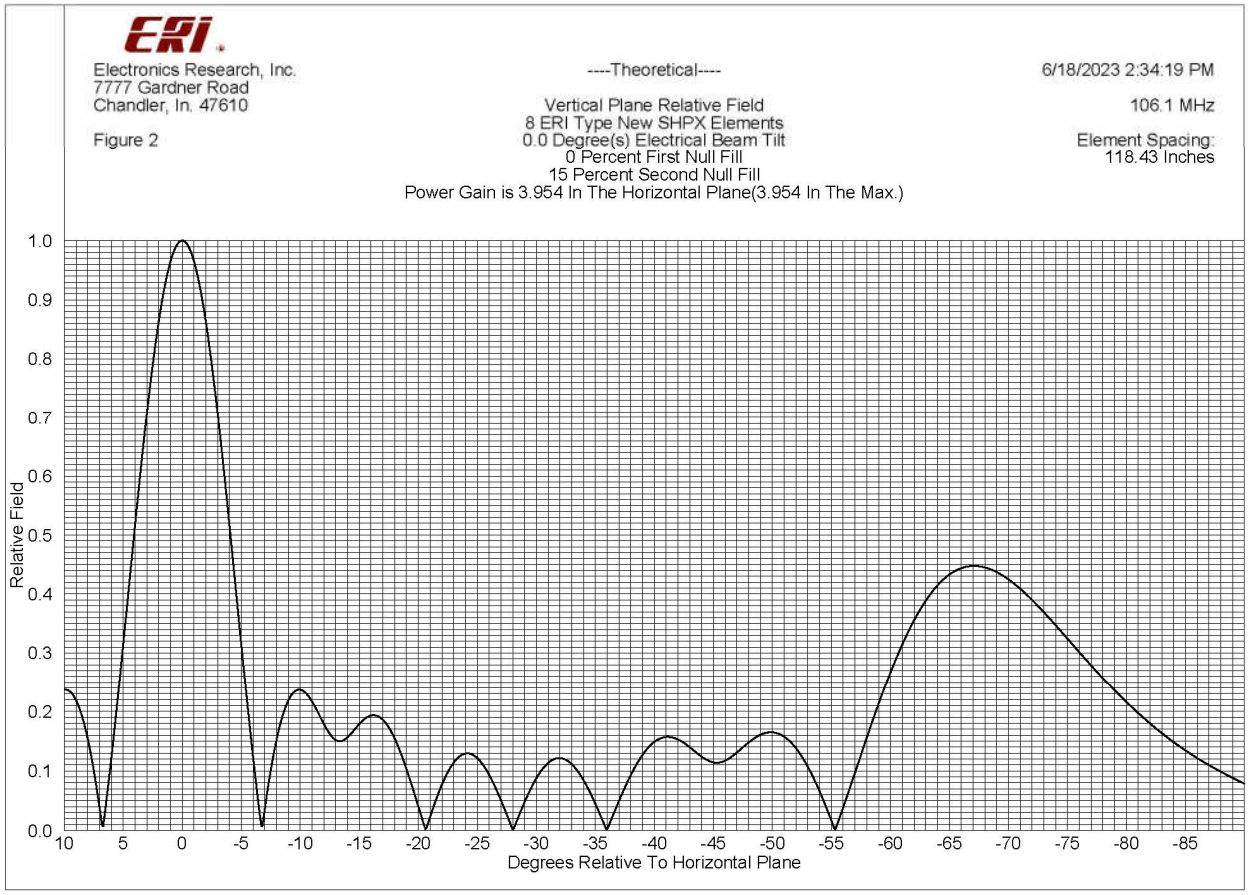
Frequency Assignment ..... 92.5 ~ 106.1 MHz.
Power Rating, Each Injected Port (Designed)..... 31.56 kW 92.5 MHz, 33.96 kW 106.1 MHz.
Input Connector ..... 3 1/8" 50 Ohm EIA (Flanged).
VSWR..... < 1.05:1 @ +/-200 KHz.(2)
Group Delay ..... Less than 50 ns Overall Variation, Carrier @ +/- 150 KHz.
Insertion Loss (Measured):

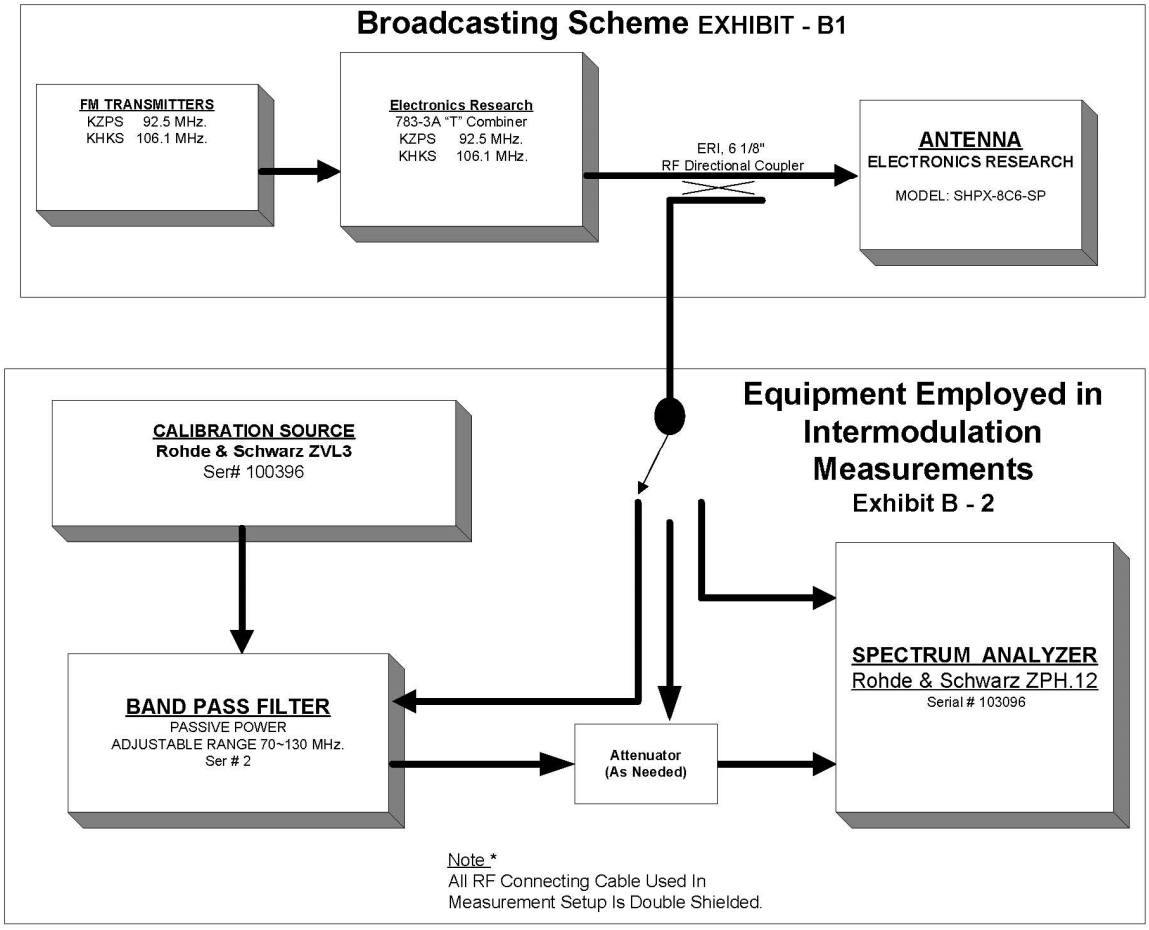
92.5 MHz. ..... - 0.1591 dB
106.1 MHz. ..... - 0.1687 dB

1) Power Rating Listed is as Designed Only. Actual Power Capabilities May Vary.
2) When Terminated in 50 Ohm Resistive Load.

EXHIBIT A – 5


Electronics Research, Inc.
7777 Gardner Road
Chandler, In. 47610
Figure 1
----Theoretical----
Vertical Plane Relative Field
8 ERI Type New SHPX Elements
0.00 Degree(s) Electrical Beam Tilt
0 Percent First Null Fill
15 Percent Second Null Fill
Power Gain is 4.173 In The Horizontal Plane(4.173 In The Max.)
6/18/2023 2:29:26 PM
92.5 MHz
Element Spacing:
118.42 Inches
Relative Field
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85
Degrees Relative To Horizontal Plane


Electronics Research, Inc.
7777 Gardner Road
Chandler, In. 47610
Figure 2
----Theoretical----
Vertical Plane Relative Field
8 ERI Type New SHPX Elements
0.0 Degree(s) Electrical Beam Tilt
0 Percent First Null Fill
15 Percent Second Null Fill
Power Gain is 3.954 In The Horizontal Plane(3.954 In The Max.)
6/18/2023 2:34:19 PM
106.1 MHz
Element Spacing:
118.43 Inches
Relative Field
1.0
0.9
0.8
0.7
0.6
0.5
0.4
0.3
0.2
0.1
0.0
10 5 0 -5 -10 -15 -20 -25 -30 -35 -40 -45 -50 -55 -60 -65 -70 -75 -80 -85
Degrees Relative To Horizontal Plane



Broadcasting Scheme and Equipment Employed in Intermodulation Measurements

EXHIBIT B