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December 22, 2005

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Federal Communications Commission
Office of Secretary

DIRECT FAX
(202) 429-4626

Ms. Marlene H. Dortch
Secretary
Federal Communications Commission
445 12th Street, S.W., Room TW-B204
Washington, D.C. 20054

**Re: Six-Month Progress Report of Clarity Broadcasting
Systems, LLC Pursuant to Experimental Radio Service
License Call Sign WD2XPK, File No. 0046-EX-PL-2005**

Dear Ms. Dortch:

Clarity Broadcasting Systems, LLC ("Clarity"), by its attorneys and pursuant to Special Condition No. 4 in Clarity's Experimental Radio Service License, Call Sign WD2XPK, File No 0046-EX-PL-2005 (issued July 27, 2005), hereby submits its six-month progress report relating to operations under the license. Special Condition No. 4 of Clarity's license requires Clarity to file a progress report six months from the date of the grant "detailing how it met its interference limitations when the system initially became operational (e.g., successful coordination with [the Society of Broadcast Engineers]), any reported interference caused by the system, and the means of remediation of such interference."

The attached Report describes in detail the experimental operations that Clarity conducted during September and October 2005 in Frazier Park, California, and in Ogden and North Salt Lake, Utah. The Report also details the very successful efforts Clarity made to pre-coordinate its operations and test program with the Society of Broadcast Engineers – something that was required by the Commission as a separate special condition of Clarity's Experimental Radio Service license. Finally, the Report contains the results obtained by Clarity which show that the short-range/low power multichannel video distribution system Clarity proposes for operation at locations around the country will not cause harmful (or unacceptable, or otherwise undesirable) interference to electronic news gathering ("ENG") operations that take place on a primary basis in the 2025-2110 MHz band at locations around the country.



Ms. Marlene H. Dortch
December 22, 2005
Page 2

In this last regard, Clarity emphasizes that the non-interference result was obtained with the transmitter operating at 1 Watt output power (10 Watts effective radiated power) in the presence of a co-located ENG transmitter communicating with a nearby ENG receive site. Clarity discovered during its tests that it could achieve its modest service objectives with a signal that uses significantly less than 1 Watt of transmitter output power, and thus will specify a lower transmit power (on the order of 500 milliWatts) in its forthcoming applications for permanent operating authority.

With the completion of proof-of-concept testing, and the achievement of successful results on every level, Clarity is preparing new applications to the Media Bureau for permanent licensing of individual locations under Part 78 of the Commission's Rules. Clarity does not plan to conduct further experimental operations under the above-referenced license, and will apprise the Commission if there is any change in those plans.

Please address any questions regarding the foregoing discussion or the attached Report to the undersigned.

Respectfully yours,

Stephen D. Baruch
Attorney for Clarity Broadcasting Systems, LLC

Enclosure

cc (w/ enc.1): Ira Keltz, OET
James Burtle, OET
Geraldine Matisse, OET
Roy Stewart, Media Bureau
Deborah Klein, Media Bureau
William Johnson, Media Bureau
Wayne McKee, Media Bureau
Mary Beth Murphy, Media Bureau
John Wong, Media Bureau
John Gabrysch, Media Bureau
Sarah Mahmood, Media Bureau

A subsidiary of Flying J Inc.

**SIX-MONTH PROGRESS REPORT
TO
THE FEDERAL COMMUNICATIONS COMMISSION
EXPERIMENTAL RADIO SERVICE LICENSE
CALL SIGN: WD2XPK
FILE NO. 0046-EX-PL-2005**

December 22, 2005

A subsidiary of Flying J Inc.

SIX-MONTH PROGRESS REPORT TO THE FEDERAL COMMUNICATIONS COMMISSION

**EXPERIMENTAL RADIO SERVICE LICENSE
CALL SIGN: WD2XPK
FILE NO. 0046-EX-PL-2005**

OVERVIEW AND EXECUTIVE SUMMARY:

In the Experimental Radio Service license that the Federal Communications Commission ("FCC" or "Commission") issued to Clarity Broadcasting Systems, LLC ("Clarity") on July 25, 2005 (Call Sign WD2XPK, File No. 0046-EX-2005) ("Experimental License"), Clarity was directed, *inter alia*, to file a progress report six months from the date of the grant "detailing how it met its interference limitations when the system initially became operational (e.g., successful coordination with [the Society of Broadcast Engineers]), any reported interference caused by the system, and the means of remediation of such interference." Clarity Experimental License at 6 (Special Condition No. 4). This Report is prepared and submitted in fulfillment of this condition.

In September and October 2005, Clarity conducted comprehensive field tests of its authorized Experimental system. Testing was conducted on September 28 and 29, 2005 at Frazier Park, California, and on October 26 and 27, 2005 at the Ogden and North Salt Lake, Utah sites. In compliance with the license (*see* Special Condition No. 6), Clarity fully coordinated the testing program at all three locations in advance of the test dates with the Society of Broadcast Engineers ("SBE"). Clarity is very pleased to report that there was extensive participation from SBE and broadcasters that it represents in all facets of the testing program. In fact, SBE members provided electronic news gathering ("ENG") transmission and reception equipment for evaluation that uses spectrum in the 2025-2109 MHz broadcast auxiliary service band in which Clarity is separately seeking permanent authority to operate on a secondary basis.

The objective of Clarity's experimentation program was to put in place a working prototype of the transmission and reception components of the short-range/ultra-low-power multi-channel video distribution system Clarity seeks to deploy at roughly 300 locations along the nation's interstate highways, and confirm via empirical testing Clarity's assertion that the system can operate on a secondary basis in the 2025-2109 MHz band without causing unacceptable, harmful, or otherwise undesirable interference to incumbent operations – including broadcast auxiliary service operations. With the remarkable participation and cooperation of a contingent of capable television broadcast engineers from stations in California and Utah (among other industry and government experts), Clarity had the opportunity to test its system with the potential recipients of interference from its system – fixed ENG receive sites within several kilometers of the Clarity transmitter. Fixed ENG sites that receive transmissions from ENG trucks in the 2025-2110 MHz

broadcast auxiliary service band are used by many television stations to facilitate the backhaul of ENG transmissions from reporting crews in the field to the stations' studios.

Clarity is very pleased to report that the first three sets of tests were fully satisfactory in every respect. Using usual and customary test procedures, Clarity was able to successfully transmit from a single omnidirectional transmitter situated 15 meters above ground (using 4 degrees of electrical beam tilt) 14 six-megahertz-wide channels of video-quality signals in the 2025-2109 MHz band. The signals were received by an antenna mounted on a truck cab located approximately 900 feet away, and successfully downconverted there into a signal that could feed 70 channels of programming into a cable-ready television. Moreover, and of at least equal importance to Clarity's program, operation of the Clarity transmitter at various levels up to and including full authorized transmitter output levels caused no observable radiofrequency interference to any fixed ENG receive facility in the 2025-2109 MHz band from any of the three sites.

In the Sections that follow, Clarity will describe the tests that were conducted at each of the three sites; provide details as to equipment used, tests performed, and results obtained; and discuss the implications of the tests and results on the ability of Clarity to successfully deploy its proposed system on a secondary basis at locations across the country.

DESCRIPTION OF PRE-COORDINATED TESTS:

Following the grant of the Experimental License, Clarity set out to design and organize the experimental program it would conduct at the three Flying J Travel Plazas. It determined that the first test would be conducted at the Frazier Park, CA travel plaza, which is the closest Flying J plaza to the large Los Angeles market. Clarity was aware that there was a 2025-2110 MHz band ENG receiver on a mountain top close to the Frazier Park Flying J Travel Plaza, and concluded that tests at Frazier Park would afford it the opportunity to confirm its claim that the Clarity transmission system would not cause harmful interference to ENG reception. *See, e.g.*, Response of Clarity to informal objection to Experimental License (File No. 0046-EX-PL-2005, filed June 20, 2005). As it turned out, that the ENG receive site in question did not have a line-of-sight path to the Clarity transmitter at Frazier Park's Flying J Travel Plaza due to intervening terrain obstructions (there was a mountain between the transmitter and the ENG receiver). In satisfaction both of its pledge to cooperate with incumbent users of the 2025-2109 MHz band and its obligation under the Experimental License to coordinate testing with the SBE, Clarity sent a letter of invitation to the Frazier Park tests to the Executive Director of the SBE, along with several other interested broadcast engineers. A copy of this September 12, 2005 letter is included as Attachment 1A to this Report. Following the letter, Clarity representatives and representatives of the broadcast community had a number of constructive exchanges in advance of the tests, and one broadcast representative arranged to visit the facility of the maker of the transmitter that Clarity would use in the three tests.

The tests took place over the course of two days – September 28 and 29, 2005, at Flying J's Frazier Park Travel Plaza. This location is significant, and bears a specific mention here for the following reason: As they were preparing to do the tests in September, representatives of Clarity became aware that the coordinates specified in the Experimental License corresponded not

to the travel plaza, but to a location several kilometers away from the plaza. Clarity regrets both this mistake in the coordinates and not having sought to have the Experimental License corrected prior to the initiation of transmissions on September 28, 2005. Clarity notes that it was clear from its September 12 Letter, its prior communications with the Commission (e.g., the June 20 Letter), its application for Experimental License, its associated applications for CARS licenses under Part 78 of the Commission's Rules, and the Commission's July 27, 2005 letter responding to the informal objection that had been lodged against its application that "[t]esting would be conducted at three truck plazas that Clarity's parent corporation, Flying J Inc., owns and operates at Frazier Park, California, North Salt Lake, Utah, and Ogden, Utah." *See* FCC July 27, 2005 letter in File No. 0046-EX-PL-2005, at 1. The fact that the transmissions on September 28 and 29, 2005 occurred as planned at the truck plaza, but at a location different from that specified in the Experimental License, was the result of a lack of internal communication on Clarity's part that will not be repeated. Clarity has made no further transmissions from Frazier Park since the completion of demonstrations on September 29, 2005, and will modify its license should it seek to transmit from there again under the Experimental License at any time during the remaining term thereof.

The second phase of testing was conducted over two days in October 2005 at both the North Salt Lake and Ogden, Utah Flying J Travel Plazas. At these locations, terrain considerations were very different from those in Frazier Park insofar as the potential for interference to ENG receive sites is concerned. But, as shown below, the favorable results in terms of interference potential from the earlier testing at Frazier Park made it reasonable from an interference remediation standpoint to proceed with the Utah tests. Again, in satisfaction both of its pledge to cooperate with incumbent users of the 2025-2109 MHz band and its obligation under the Experimental License to coordinate testing with the SBE, Clarity sent a letter of invitation to the concurrent Utah tests to the Executive Director of the SBE, along with several other interested broadcast engineers. A copy of this October 6, 2005 letter is included as Attachment 1B to this Report. As with the Frazier Park tests, following the letter, Clarity representatives and representatives of the broadcast community had a number of constructive exchanges in advance of the Utah tests. The second round of tests was held as scheduled at both North Salt Lake and Ogden on October 26 and 27, 2005.

Attachment 2 to this Report contains the block diagrams and descriptions of the equipment used during the testing at Frazier Park and in Utah. The operational equipment was comprised of the following components:

1. Transmitter, Loma Scientific International Model No. LSI-67DTL
2. Transmodulator, Televes Model No. 5023
3. Transmission Line, Andrew Model No. LDF5-50
4. Transmit Antenna, Loma Scientific International Model No. LSI-2100
5. Receive Antenna (various gain, 9-11 dBi), Loma Scientific International custom models
6. Block Down Converter, Loma Scientific International custom models
7. Digital Set-Top Box, EchoStar Model No. 351

In each of the three locations, the transmit antenna was located at a height of approximately 15 meters above ground, and incorporated 4 degrees of electrical beam downtilt. This combination of relatively low antenna height above ground and electrical beam downtilt were designed to limit the interference potential from the transmitter while permitting Clarity to meet its objective of providing a digital television signal of sufficient quality to truck-borne receivers at the edges of the Flying J parking areas (at the two largest of the three areas tested, the edge of the parking area is approximately 900 feet in radius from the transmit antenna location). As will be discussed below, they proved to work just as designed.

Clarity used the following test equipment:

1. Directional Coupler
2. Oscilloscope
3. RF Power Termination
4. RF Power Attenuator
5. 8590 Spectrum Analyzer
6. 8594E Spectrum Analyzer
7. 8594Q Spectrum Analyzer
8. Graphics Plotter and Printers
9. Field Strength Meter and Sat-finder
10. Nine-Pole Filter

Representatives from the SBE, several network television affiliates, the director of broadcast quality from one of the television networks, an engineer from the FCC Enforcement Bureau's Los Angeles Field Office, and others participated in all or part of the two days of tests at Frazier Park. Several of the television stations brought ENG transmit and/or receive equipment with them to the travel plaza, and used the equipment to attempt to detect interference from Clarity's system. Attachment 3A contains a list of participants and their affiliations.

Participation from SBE and local broadcast television station engineering and broadcast quality personnel was very good as well for the Utah tests. Once again, the broadcast participants provided ENG equipment (i.e., fixed ENG receive sites a few kilometers away from Clarity's transmitters, but, unlike Frazier Park, within direct line of sight to at least one of the transmitters) that was included in the testing program. Attachment 3B contains a list of participants in the Utah tests and their affiliations.

At all locations, Clarity operated the transmitter under a variety of power conditions, up to the maximum level authorized in the Experimental License. Transmitter power was raised and lowered throughout the course of the tests in response to the requests of the broadcast-industry participants. In each case, the maximum authorized transmitter power was more than is required to provide the desired received signal margin for QAM transmission at the truck-mounted receiver used in the tests. Clarity, however, desires to use its system at travel plazas around the country, some of which have truck parking areas larger than the ones where the initial tests were conducted, so it was important to use power levels that could be representative of some of these latter installations. The minimum levels used in the tests were still sufficient to provide satisfactory digital broadcast television service to the truck-mounted receivers located at the

outlying edge of the truck parking areas of the facilities where the tests were conducted. This was the case even in the presence of multipath distortions that were caused by numerous reflections from the sides of large trailers of big-rig trucks located in the lots between the Clarity transmission and reception systems (as well as taking into account an allowance for non-precision receive antenna mounting and other atmospheric phenomena).

Despite the location of fixed ENG receivers near the travel plazas where the transmitters were operated at maximum authorized power levels, Clarity and the other participants were able to confirm that no radiofrequency interference at levels above the noise floor was caused to ENG reception in the 2025-2109 MHz band. That is the case for all power levels Clarity used, and for all conditions of operation. That is the case not only for the terrain-obstructed ENG receive site in the vicinity of Frazier Park, but also for the ENG receivers that are located a few kilometers from one or the other of the Utah travel plazas and within direct line of sight to the Clarity transmitter. Clarity notes that in the one case of a truck-mounted ENG receiver that was considered during the Frazier Park tests (the receiver was located on the Flying J plaza lot during the tests), interference at undesirable levels was observed from Clarity's transmitter. ENG receivers mounted on trucks are very rare; most ENG receivers are located at fixed sites at elevations high enough to permit line-of-sight connection with a maximized geographic area, and are used to relay (by other bands and other means) broadcast signals transmitted to them by crews in the field back to the station's studios.

The omnidirectional transmit antenna used by Clarity, which incorporates four degrees of electrical beam downtilt and which is mounted at a relatively low height above ground of roughly 15 meters, is instrumental in confining radiation to the desired coverage area (generally the truck parking area of the travel plaza). In each installation, the omnidirectional radiation pattern was positioned so that the peak of the pattern would reach the halfway radius of the parking area. With this physical arrangement, the trucks in close proximity to the transmit antenna received a good signal -- stronger due to the shorter distance (i.e., 6 dB for half the distance) and weaker due to being below the peak of the pattern. In other words, the two considerations were nearly offsetting. Trucks at the far end of the parking lot received a good signal even though they were above the peak of the pattern at approximately double the distance. The parking lot was uniformly illuminated with a variation of approximately 12 dB in signal strength -- a number within the dynamic range of the receiving down-converter and digital set-top box. Equally as important, the signal strength beyond the far borders of the truck parking area dissipated rapidly as predicted, and thus limited the potential for interference to operators located outside of the "service area" of the transmit antenna. This last point was confirmed by the absence of interference observed at ENG receivers located just a few kilometers from the Flying J facilities during various tests.

Attachment 4A through 4C to this Report contains the field test data Clarity recorded during the tests at Frazier Park and the Utah sites. Each of the figures identifies the site of the test and the operational condition under which the data depicted was recorded. In each case, a plot of interference in the 2025-2109 MHz band and adjacent bands was made with the transmitter off, to show existing sources of interference (e.g., cellular transmissions below 2025 MHz) that in some cases are from mobile-service transmitters located on the Flying J property. During the testing, data was shared, observed and discussed with all parties present and interested. This was very

much an iterative process, with, as mentioned above, specific tuning and power combinations being performed in response to requests from the attendees.

Attachments 5A through 5C to this Report contain photographs and maps that relate to the tests conducted at the three sites.

ANALYSIS OF RESULTS:

Clarity's goal in conducting the evaluation of prototypes of the transmission and reception components of its proposed short-range/ultra-low-power multi-channel video distribution system was to demonstrate that its system will be able to operate at the transmitter output power and EIRP levels necessary to provide satisfactory digital broadcast television service (with the desired received signal margin for QAM transmission) over the truck parking areas of travel plazas without any potential for causing interference at harmful, unacceptable, or otherwise undesirable levels to the ENG receivers in the broadcast auxiliary service which operate in the 2025-2109 MHz band used by Clarity's system. Clarity's tests at the three travel plazas described in the Experimental License succeeded spectacularly in achieving Clarity's goal.

From the service standpoint, Clarity was able to preserve its desired received signal margin for QAM transmission over the required distances for its full deployment at locations around the country. It did so under a variety of foreground effects – including the potential for multipath distortions from truck trailers in the parking areas, an allowance for non-precision receive antenna mounting, and taking atmospheric phenomena into account. Clarity confirmed its projection that transmissions from ENG trucks in the vicinity of Clarity's receivers would cause the loss of reception by Clarity receivers on the channel(s) affected by the transmissions, but that in such cases, the remaining unaffected channels would be received and successfully downconverted. From a technical standpoint then, Clarity's experimental operations proved beyond a doubt that the 2025-2109 MHz band is very well suited for its proposed video distribution system.

From an interference standpoint, Clarity's results were extremely successful. Even when it operated the system at the full power authorized in the Experimental License – something that Clarity believes it will not have to do at any of its installations around the country – Clarity's transmissions caused no observable radiofrequency interference to fixed ENG receivers located within direct line of sight just a few kilometers away. This is a remarkable result, and confirms beyond doubt Clarity's claim that it can successfully operate its system on a secondary basis at locations around the country. The omnidirectional transmit antenna used by Clarity, which incorporates four degrees of electrical beam downtilt and which is mounted at a relatively low height above ground of roughly 15 meters, is instrumental in confining radiation to the desired coverage area (generally the truck parking area of the travel plaza).

In summary, by working cooperatively and coordinating closely with an interested and constructive group of representatives from the broadcast industry, Clarity was able, through its tests at three Flying J Travel Plazas in California and Utah:

- to confirm that its proposed short-range/low-power multichannel video distribution system, which is intended for use by long-haul truckers and similar travelers during layovers at

mostly-rural travel plazas and similar facilities at hundreds of locations around the country, will be able to provide a broadcast-quality signal for the very short distances required.

- to empirically validate its assertion that no harmful, unacceptable, or otherwise undesired interference will be caused by Clarity's system to ENG receivers – wherever they may be located.
 - The area of potential interference is kept very small by the combination of low height above ground of the transmit antenna and the incorporation into the transmission system design of 4 degrees of electrical beam downtilt.
 - Fixed ENG receivers located even a few kilometers away from a Clarity transmitter operating at the maximum power level permitted in the Experimental License observed no undesired interference effects from Clarity's transmitter.
- to show that although the potential for interference *to* Clarity reception systems is likely from ENG transmitters in the 2025-2109 MHz band, the interference will affect only the channel(s) using the frequencies in which the ENG transmission occurs; the remaining channels will be able to be successfully operated.

Clarity considers that the results it has obtained in its three tests are comprehensive, credible, and fully representative of the effects it can expect from deployments at locations around the country. No further tests are scheduled at this point.

ATTACHMENT 1A

INVITATION LETTER TO SBE FOR FRAZIER PARK, CA TESTS

A subsidiary of Flying J Inc.

September 12, 2005

John Poray
Executive Director
Society of Broadcast Engineers
9247 North Meridian Street
Suite 305
Indianapolis, IN 46260

**Re: Technical Demonstration of Clarity Broadcasting Systems, LLC
2025-2109 MHz Short-Range, Ultra-Low Power Multichannel
Video Distribution System**

Dear Mr. Poray:

On July 27, 2005, Clarity Broadcasting Systems, LLC ("Clarity") was granted a license in the Experimental Radio Service to test and evaluate equipment for its new ultra-low power, short-range multichannel video distribution system in the 2025-2109 MHz band at two locations in Utah and one location in California. *See* File No. 0046-EX-PL-2005 (granted July 27, 2005). The experimentation program is an integral part of Clarity's plan to deploy its new system at more than 250 travel plazas and other sites in predominantly rural locations along the nation's interstate highway system. The first several of Clarity's applications for permanent authority to deploy the new system are already on file with the FCC, and additional applications will follow shortly. Clarity is conducting its program of tests and evaluations with the primary objective of confirming its technical assertion that the operation of the system will not cause any harmful interference to authorized users of the 2025-2110 MHz band – including to Broadcast Auxiliary Service ("BAS") operations.

The Society of Broadcast Engineers ("SBE"), whose members include licensees and operators of BAS facilities in the 2025-2110 MHz band, intervened in the FCC proceeding on Clarity's application for the experimental authorization to express concerns about the compatibility of Clarity's proposed secondary use of the 2025-2109 MHz band with BAS operations. Clarity pledged at the time to work with the SBE as Clarity proceeds to substantiate its assertions about the compatibility of Clarity's system that is desperately wanted and needed by the nation's community of more than 2.5 million professional long haul truck drivers and RV operators. In granting Clarity's application, the FCC made Clarity's commitment to full cooperation and coordination with SBE – with the aim of producing meaningful experimental testing while preventing harmful interference to the BAS operations SBE's members conduct in the 2025-2110 MHz band – a condition of Clarity's Experimental Radio Service license.

In satisfaction of Clarity's pledge to cooperate with incumbent users of the 2025-2110 MHz band and its obligation to coordinate testing with the SBE, Clarity invites you to attend and observe the demonstrations of the transmission equipment authorized in Clarity's Experimental Radio

Service license. The demonstrations will take place on September 28 and 29, 2005, on the grounds of the Flying J Travel Plaza in Frazier Park, California. The address is:

Flying J Travel Plaza
42810 Frazier Mountain Park Road
Frazier Park, CA 93243
Interstate 5 Frazier Park Exit

Clarity will be transmitting an actual multichannel video signal of the type it seeks to provide on a localized basis at hundreds of travel plazas and truck rest areas nationwide. Clarity's engineers will demonstrate system performance and will be available to turn the system on and off and answer any technical questions you may have.

Clarity sincerely hopes that SBE and others from the BAS community take the opportunity of the Frazier Park demonstrations to observe for yourselves that Clarity's new system, which will operate on a secondary basis to the BAS in both the experiments and in the permanent service, has the technical and operational features that make it fully compatible with the BAS.

If you are interested in attending the demonstrations on September 28-29, please r.s.v.p. to my office in Ogden, Utah or call 801-624-4507 or email me at ian.williams@flyingj.com. Please feel free to forward this invitation to any BAS licensees and operators who may have an interest in observing Clarity's new system in action.

Clarity looks forward to a constructive relationship with SBE and the BAS community as we begin the process of demonstrating how our new ultra-low power, short-range multichannel video distribution system is fully compatible with the BAS in the 2025-2110 MHz band.

Sincerely,

/s/

Ian Williams
VP Communications & GM

cc: David Donovan, Esq., and Victor Tawil, MST
Jeffrey Birch
Ira Keltz, FCC Office of Engineering and Technology
John Wong, FCC Media Bureau

ATTACHMENT 1B

INVITATION LETTER TO SBE FOR UTAH TESTS

CLARITY BROADCASTING SYSTEMS, LLC

A subsidiary of Flying J Inc.

October 6, 2005

John Poray
Executive Director
Society of Broadcast Engineers
9247 North Meridian Street
Suite 305
Indianapolis, IN 46260

**Re: Technical Demonstration of Clarity Broadcasting Systems, LLC
2025-2109 MHz Short-Range, Ultra-Low Power Multichannel
Video Distribution System**

Dear Mr. Poray:

Clarity Broadcasting Systems, LLC ("Clarity") is continuing its experimentation program pursuant to its FCC Experimental Radio Service license to test and evaluate equipment for its new ultra-low power, short-range Multichannel video distribution system in the 2025-2109 MHz band at two locations in Utah and one location in California. *See* FCC File No. 0046-EX-PL-2005 (granted July 27, 2005). The experimentation program is an integral part of Clarity's plan to deploy its new system at more than 250 travel plazas and other sites in predominantly rural locations along the nation's interstate highway system. Clarity is conducting its program of tests and evaluations with the primary objective of confirming its technical assertion that the operation of the system will not cause any harmful interference to authorized users of the 2025-2110 MHz band – including to Broadcast Auxiliary Service ("BAS") operations.

The first demonstrations were held last month in Frazier Park, California. Clarity coordinated its Frazier Park demonstrations with the Society of Broadcast Engineers ("SBE"), whose members include licensees and operators of BAS facilities in the 2025-2110 MHz band, and we were very pleased that SBE representatives were present and active during both days of the very successful demonstrations.

The FCC made Clarity's commitment to full cooperation and coordination with SBE – with the aim of producing meaningful experimental testing while preventing harmful interference to the BAS operations SBE's members conduct in the 2025-2110 MHz band – a condition of Clarity's Experimental Radio Service license. In continued satisfaction of Clarity's pledge to cooperate with incumbent users of the 2025-2110 MHz band and its obligation to coordinate testing with the SBE, Clarity invites you to attend and observe demonstrations of the transmission equipment authorized in Clarity's Experimental Radio Service license that will take place on October 26 and 27, 2005, on the grounds of the Flying J Travel Plazas in North Salt Lake and Ogden, Utah. The addresses are:

Flying J Travel Plaza
885 West, North Point Circle
Salt Lake City, UT 84054
I-215, Exit 28 Redwood Road

Flying J Travel Plaza
1172 West 21st Street
Ogden, UT 84401
I-15, Exit 346

Clarity will be transmitting an actual Multichannel video signal of the type it seeks to provide on a localized basis at hundreds of travel plazas and truck rest areas nationwide. Clarity's engineers will demonstrate system performance and will be available to turn the system on and off and answer any technical questions you may have.

Clarity sincerely hopes that SBE and others from the BAS community take the opportunity of the Utah demonstrations to observe for yourselves that Clarity's new system, which will operate on a secondary basis to the BAS in both the experiments and in the permanent service, has the technical and operational features that make it fully compatible with the BAS.

We will follow the same schedule on both days:

08:00 am - 11:45 am	Testing and observation at Ogden travel Plaza
11:45 am - 1:00 pm	Lunch served at corporate HQ, Ogden
2:00 pm - 5:30 pm	Testing and observation at North SLC travel Plaza

If you are interested in attending the demonstrations on October 26-27, please R.S.V.P. to my office in Ogden, Utah or call 801-624-4507 or email me at ian.williams@flyingj.com. Please feel free to forward this invitation to any BAS licensees and operators who may have an interest in observing Clarity's new system in action.

Clarity looks forward to continuing its constructive relationship with SBE and the BAS community as we continue the process of demonstrating how our new ultra-low power, short-range Multichannel video distribution system is fully compatible with the BAS in the 2025-2110 MHz band.

Sincerely,

/s/

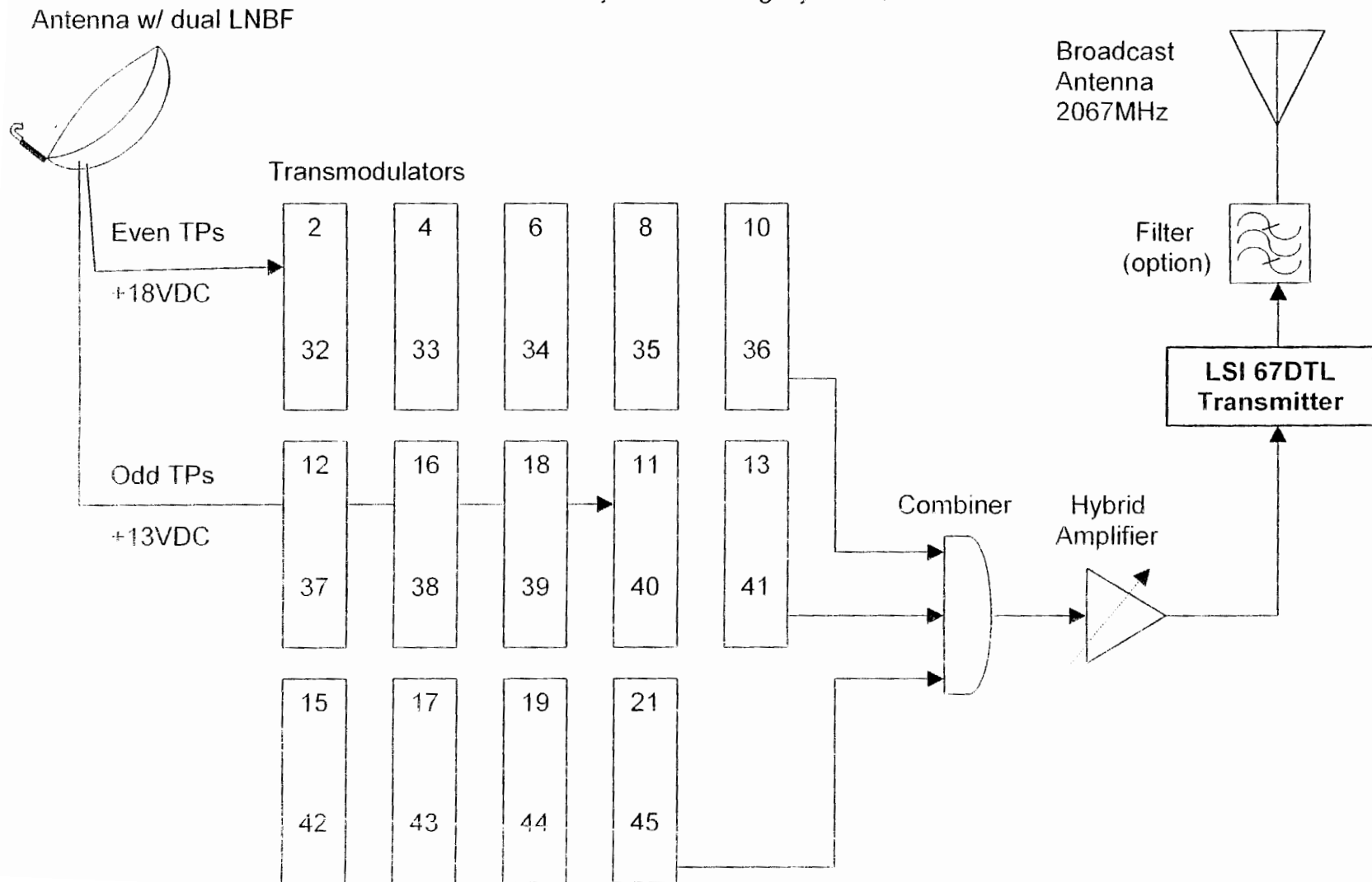
Ian Williams
VP, Communications & GM

cc: David Donovan, Esq., and Victor Tawil, MST
Jeffrey Birch
Ray Benedict, President, Society of Broadcast Engineers
Ira Keltz, FCC Office of Engineering and Technology
John Wong, FCC Media Bureau
Jerry Kalke, Dir Broadcast Quality, CBS

ATTACHMENT 2

BLOCK DIAGRAMS AND TEST EQUIPMENT

Clarity Broadcasting Systems, LLC

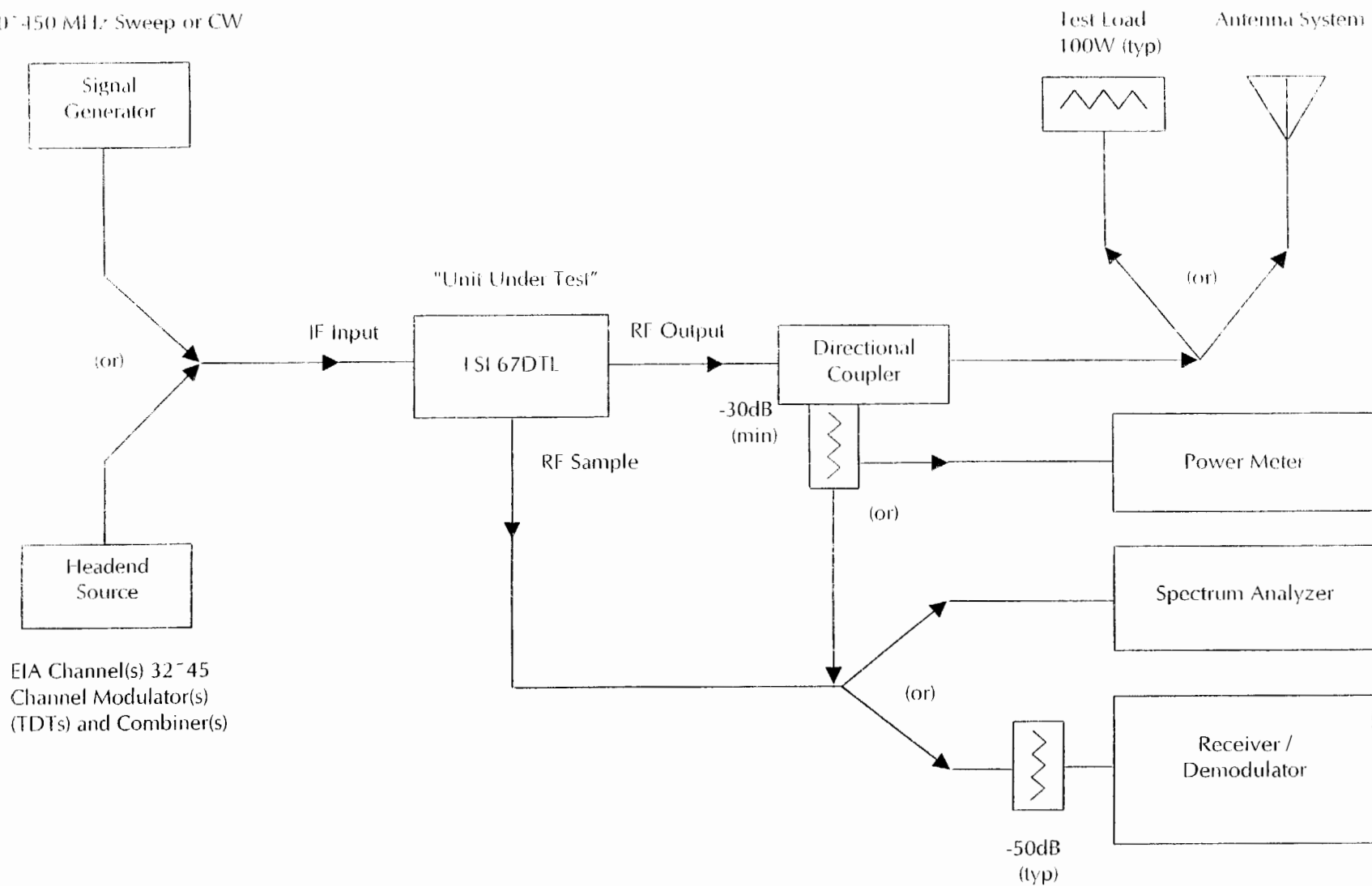


Clarity Broadcasting Systems, LLC
Transmodulator Frequency Settings

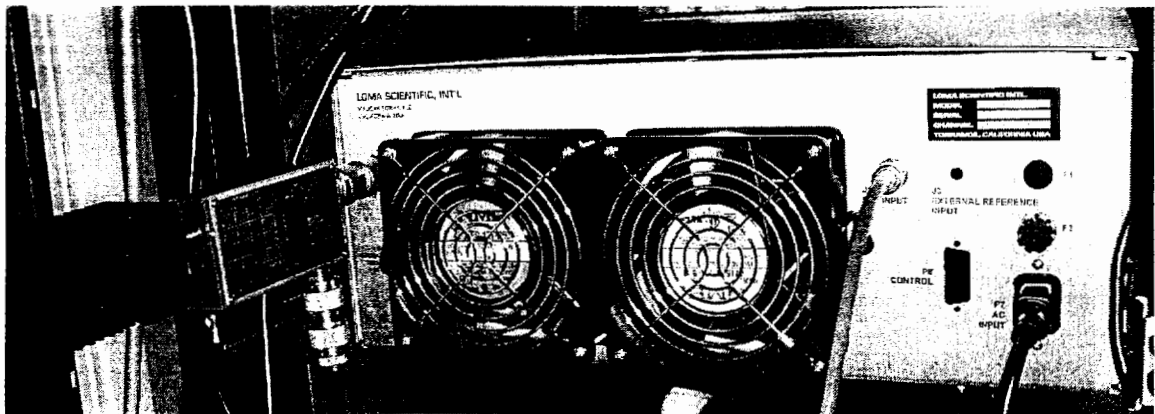
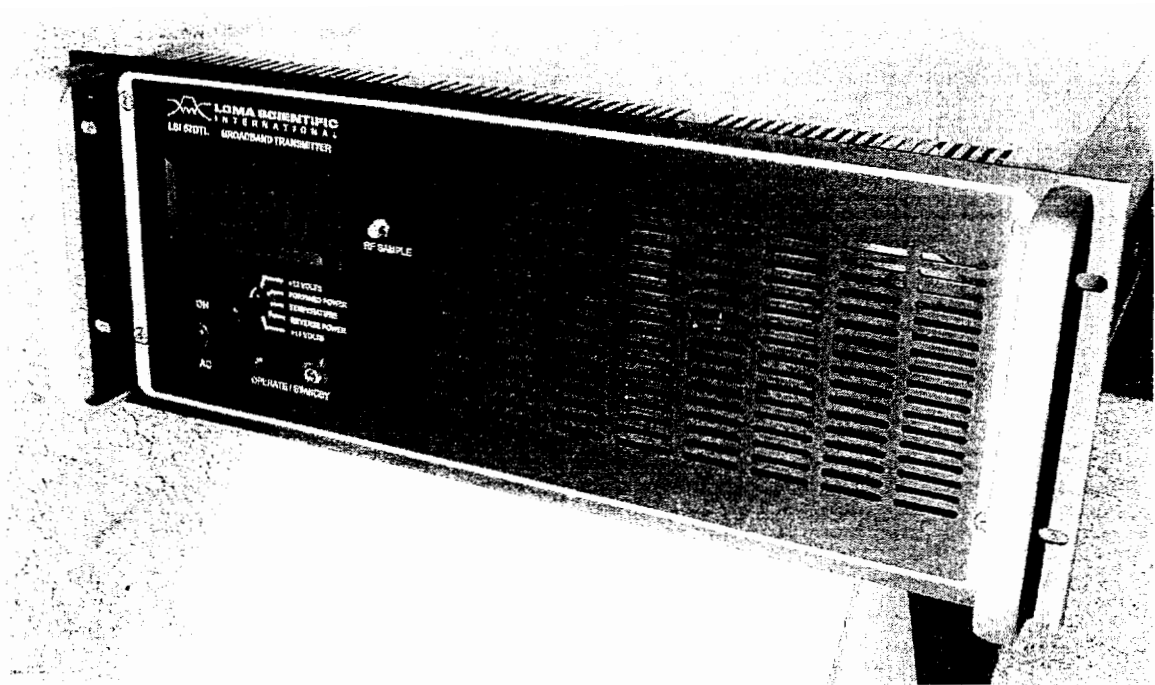
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[Input] TP# 12 1134 MHz 303 MHz Cable CH37 [Output]	[Input] TP# 16 1193 MHz 309 MHz Cable CH38 [Output]	[Input] TP# 18 1222 MHz 315 MHz Cable CH39 [Output]	[Input] TP# 11 1120 MHz 321 MHz Cable CH40 [Output]	[Input] TP# 13 1149 MHz 327 MHz Cable CH41 [Output]
[Input] TP# 15 1178 MHz 333 MHz Cable CH42 [Output]	[Input] TP# 17 1207 MHz 339 MHz Cable CH43 [Output]	[Input] TP# 19 1236 MHz 345 MHz Cable CH44 [Output]	[Input] TP# 21 1265 MHz 351 MHz Cable CH45 [Output]	

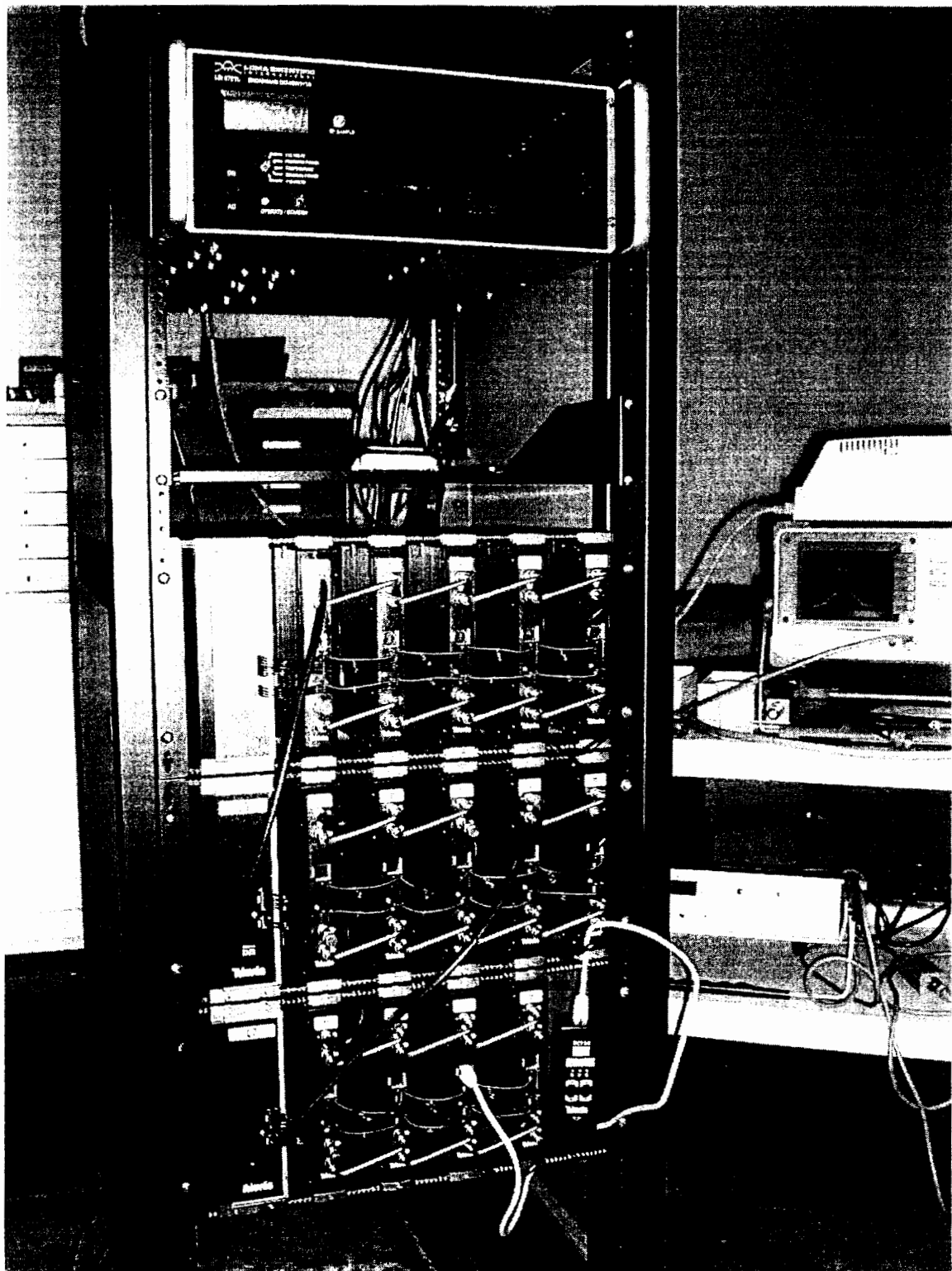
FI-2818-001
LSI 67DTL, Transmitter Final Test, Block Diagram

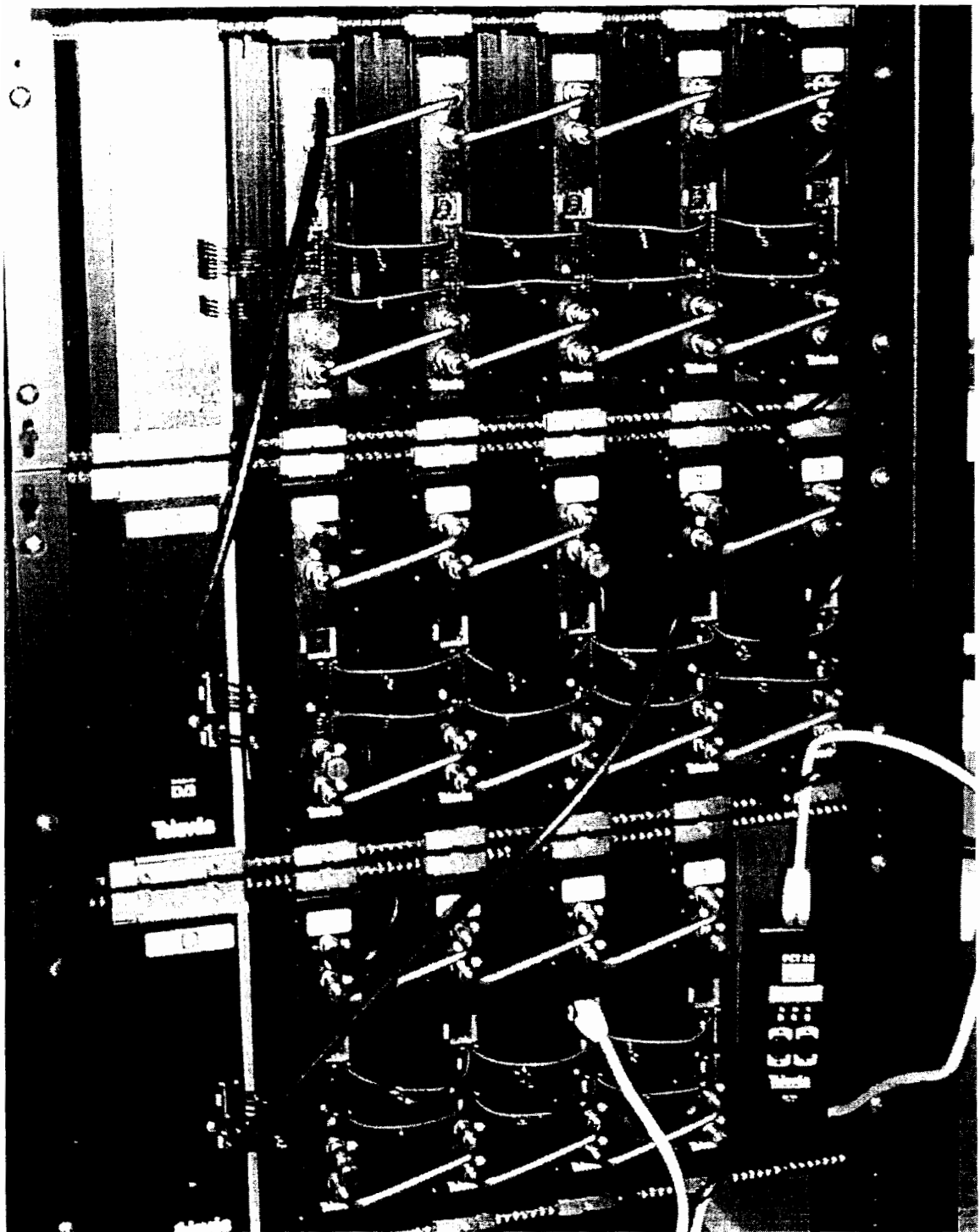
200~450 MHz Sweep or CW



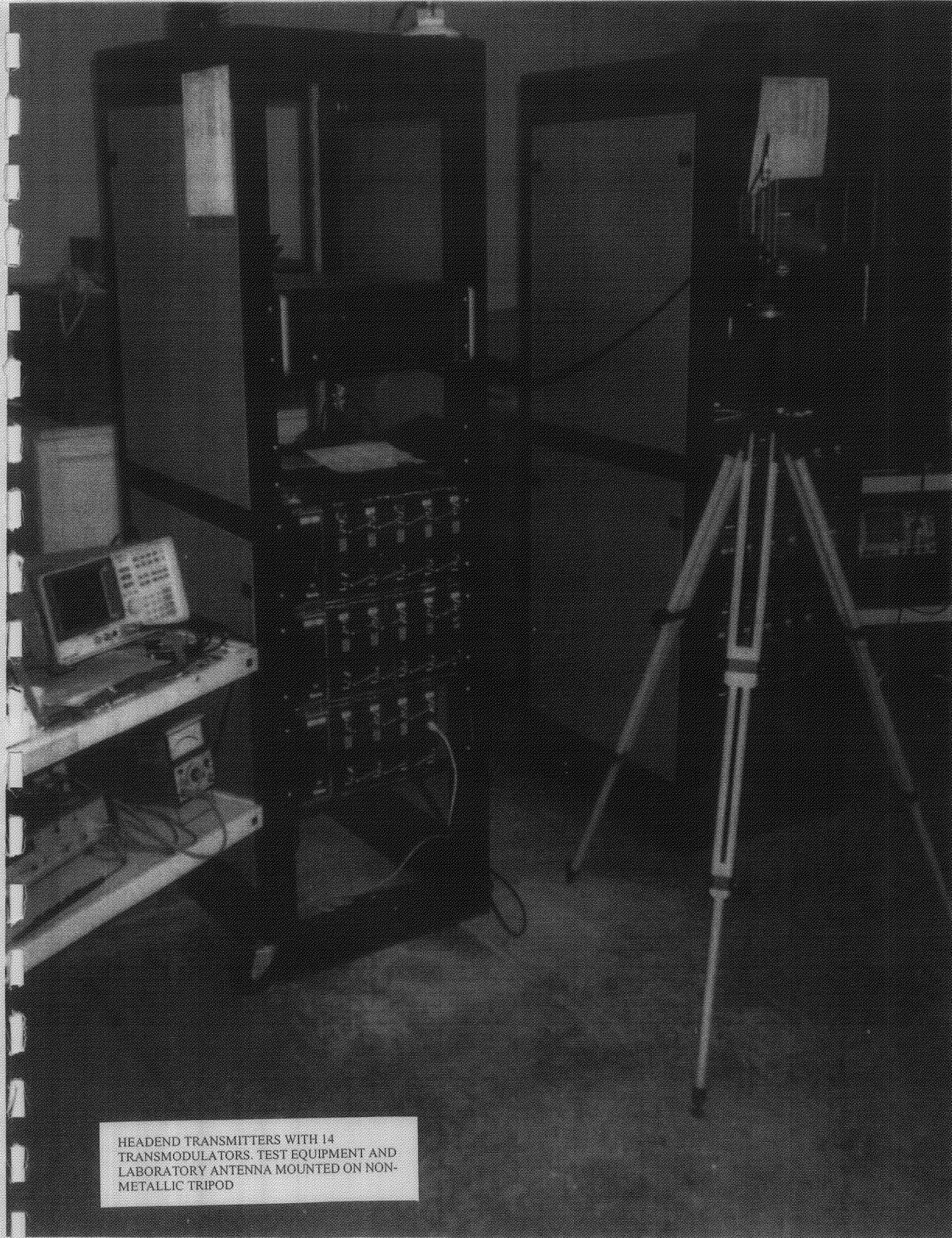
Warning: Do not exceed the maximum input (output) of the LSI 67DTL.
Do not exceed the maximum inputs of the RF test equipment.







Transmod.jpg



HEADEND TRANSMITTERS WITH 14
TRANSMODULATORS. TEST EQUIPMENT AND
LABORATORY ANTENNA MOUNTED ON NON-
METALLIC TRIPOD

