

MODIFY BLH-20061206ADI
BS&T WIRELESS, INC.
KGHT (FM) RADIO STATION
CH 263A - 100.5 MHZ - 6.0 KW
EL JEBEL, COLORADO
August 2010

EXHIBIT A

KGHT Transmission System Calculations

Effective Radiated Power:	
Horizontal/Vertical	6.0 kilowatts
Antenna:	Electronic Research, Inc. Model SHPXA-8AC-HW-SP 8 bay half wavelength spaced
Horizontal gain:	2.521 ¹
Transmission Line:	
(82 feet)	Myatt - rigid 3 inch air dielectric 98.1% Efficiency
Transmission Line:	
(12 feet)	Andrew HJ12-50 2 1/4 inch air dielectric 99.3% Efficiency
Transmitter combiner:	Shively 2530-3A-16/16/06 Combiner Insertion loss : 042620 db 90.653% Efficiency
Required Transmitter Power Output To Reach Effective Radiated Power:	2.7 kilowatts

1) The gain of the ERI eight bay antenna is different for each of the three stations sharing the antenna. Attached as Exhibit A1 is a vertical plane relative field pattern from ERI for KGHT. Exhibit A1 notes that there is 1 degree of beam tilt with 0% first null fill and 2% second null fill.

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EXHIBIT A (continued)

KGHT Transmission System Calculations

Facilities Authorized:	Channel 263A - 100.5 MHz
Effective Radiated Power:	6.0 kilowatts (H/V)
Geographic Coordinates:	North Latitude 39° 18' 56" West Longitude 106° 57' 32"
Antenna Center of Radiation:	Above Ground 24.0 meters Above MSL 2,682.0 meters HAAT 109.0 meters
Antenna Structure Registration #:	1200877

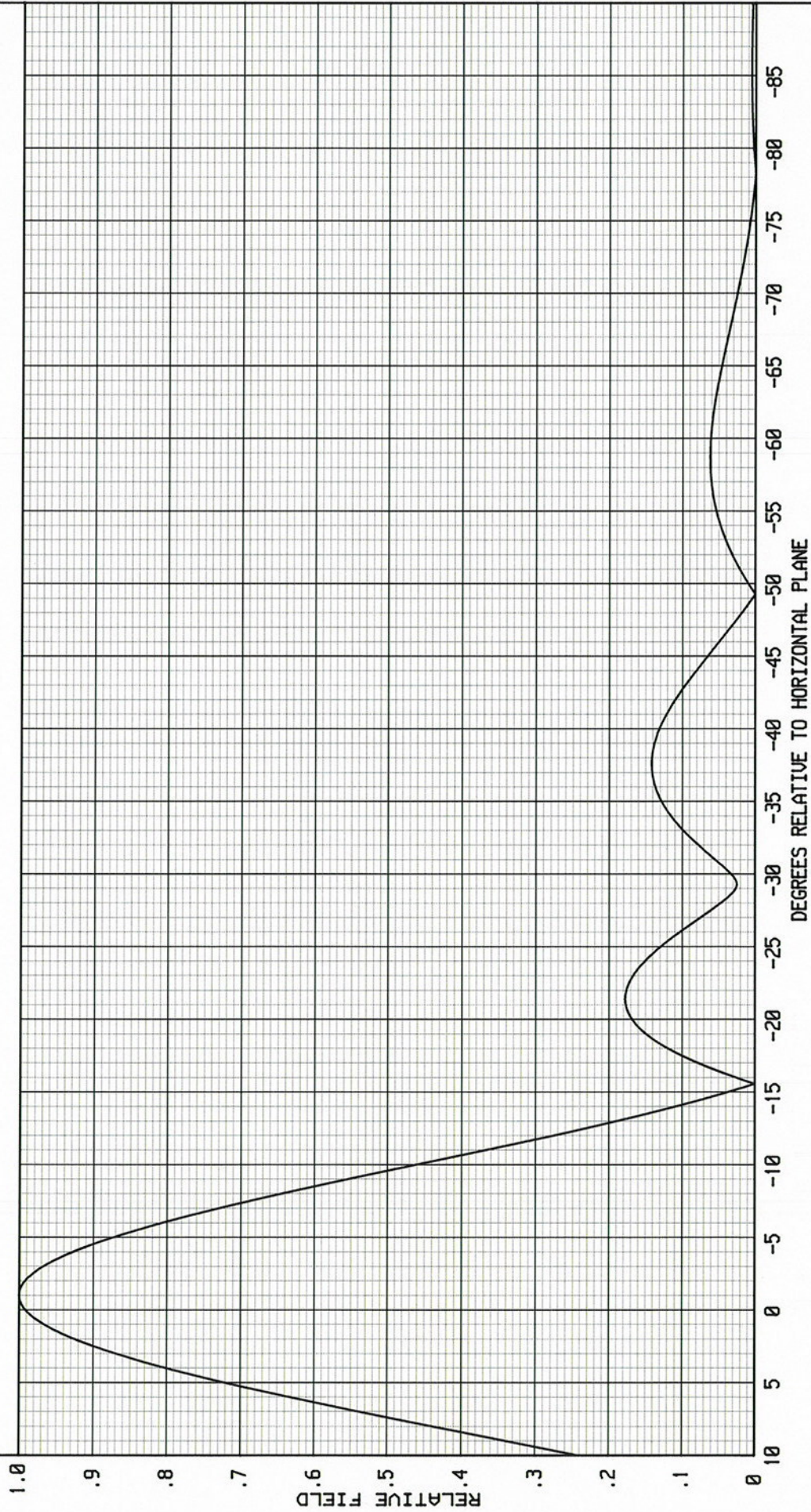
ELECTRONICS RESEARCH, INC.
7777 GARDNER ROAD
CHANDLER, IN. 47610

FIGURE 2

-----THEORETICAL-----
VERTICAL PLANE RELATIVE FIELD

8 BAY AXIOM(TM) BROADCAST ANTENNA WITH BEAM TILT
-1.0 DEGREE(S) ELECTRICAL BEAM TILT
0 PERCENT FIRST NULL FILL
2 PERCENT SECOND NULL FILL

POWER GAIN IS 2.521 IN THE HORIZONTAL PLANE(2.565 IN THE MAX.)



APRIL 12, 2010
100.5 MHz.
ELEMENT SPACING:
60 INCHES