CLARENDON FOUNDATION

FCC Form 422

EXHIBIT 1

Clarendon Foundation seeks authority to test equipment in connection with production of facilities to be developed for local distribution of video services in the 2.5 GHz band. The planned service area is the Las Vegas, Nevada MSA. The equipment will be utilized as part of a new wireless cable system operated by SuperChannels of Las Vegas, Inc.

The principal focus of the experiment will be the viability of prototype equipment manufactured by California Amplifier, Inc., which has selected the Las Vegas wireless cable market as a beta-test site for a new downconverter antenna. See Attachment A. The study will assess the performance of the antennas in the SuperChannels wireless cable system.

ATTACHMENT A

California Amplifier

May 7, 1992

Joe Cunningham
Superchannels of Las Vegas
31 Cactus Garden
Henderson, NV 89014

Dear Joe,

We are happy to inform you that you have been selected as a beta-test site for our new integrated downconverter antenna.

This unit is a prototype, and will not be available in production quantities for about 6 - 8 weeks. We are interested in it's performance in your system. We feel your system will provide appropriate test conditions because of transmitter power / location, number of channels, and terrain.

Enclosed is a preliminary specification sheet, and carrier to noise graphs on the unit.

We will keep you informed on the release of this new unit, and will look forward to your evaluation.

Sincerely,

Susan Clum

Susan Clum
Wireless Sales

California Amplifier, Inc.
460 Calle San Pablo
Camarillo, California
93012 USA

Phone (805) 987-9000
Fax (805) 482-5842
Telex 469193

California Amplifier

S-BAND LOW NOISE DOWNCONVERTER /YAGI "LNBY"

Part Number C31545	__ 12	__ 15	__ 18
Integrated Gain	44	47	50

Downconverter Specifications

RF Input Frequency ..... 2500 to 2686 MHz
RF Output Frequency..... 222 to 408 MHz
LO Frequency Stability ..... 2278 MHz ±25 KHz
Noise Figure ..... 1.7 dB Typical
Gain ..... 32 dB ± 2dB
Gain Flatness..... ±1.5 dB, 0.25 dB/6 MHz
Gain Variation..... ±1.5 dB Max., (-40° to +60° C)
LO Leakage
  @ IF Port ..... -50 dBm
  @ RF port ..... -50 dBm
Phase Noise ..... >75 dBc/Hz @ 10 KHz
Image Rejection ..... 45 dB Min.
In band output spurious/harmonics..... -65 dBc
I.F. Rejection ..... 90 dB Min.
I.M.D. (2 tone test)* ..... -50 dBc
P-out 1-dB Compression Point ..... +16 dBm Min. (single carrier)
Third Order Intercept Point..... +27 dBm
RF Input Level (Max.)
  with single channel ..... -21 dBm
  with 31 channels each ..... -50 dBm
RF Output Level (Max.)
  with single channel ..... +59 dBmV
  with 31 channels each ..... +30 dBmV
Output Connector ..... "F" Type Female, 75 Ohms
-20 dB Test Port Connector ..... "F" Type Female
Supply Voltage ..... +16 to +24 VDC (through output connector)
Current ..... 240 mA Max.
Operating Temperature..... -40°C to +60°C
Lightning Suppression ..... Yes, Transient
Weatherproof Housing ..... Yes
Finish ..... Polyurethane Powder Coat Paint
Dimensions ..... 6.1 X 3.25 X 3.62 In.; 15.5 X 8.25 X 9.19 cm
Unconditionally Stable ..... Yes
Special O Ring Water Seal ..... Yes
Warranty..... 2 years
*2 Equal Tones at -30 dBm at Input

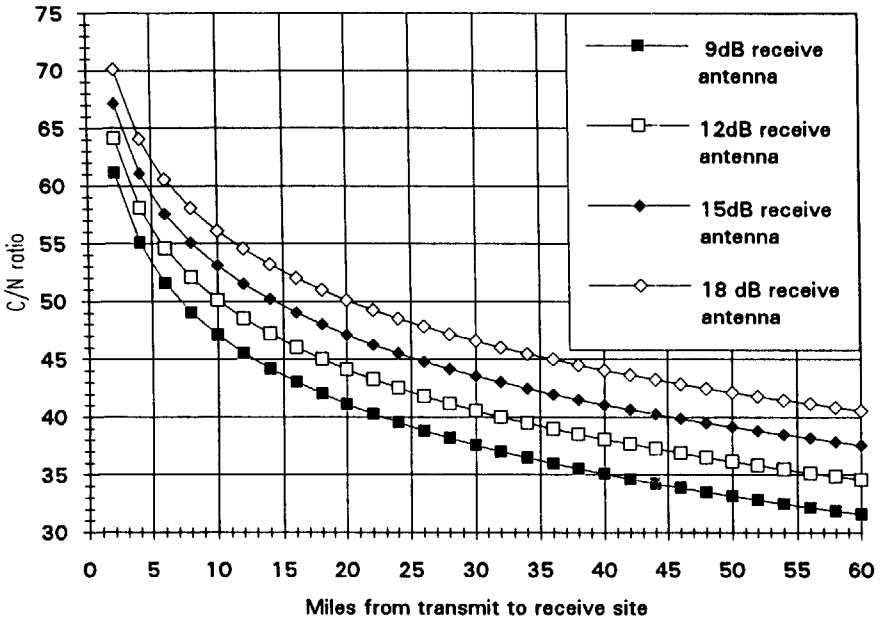
PRELIMINARY

California Amplifier, Inc. Subject to change without notice.
460 Calle San Pablo, Camarillo, CA 93012 (805) 987-9000 FAX (805) 987-8359

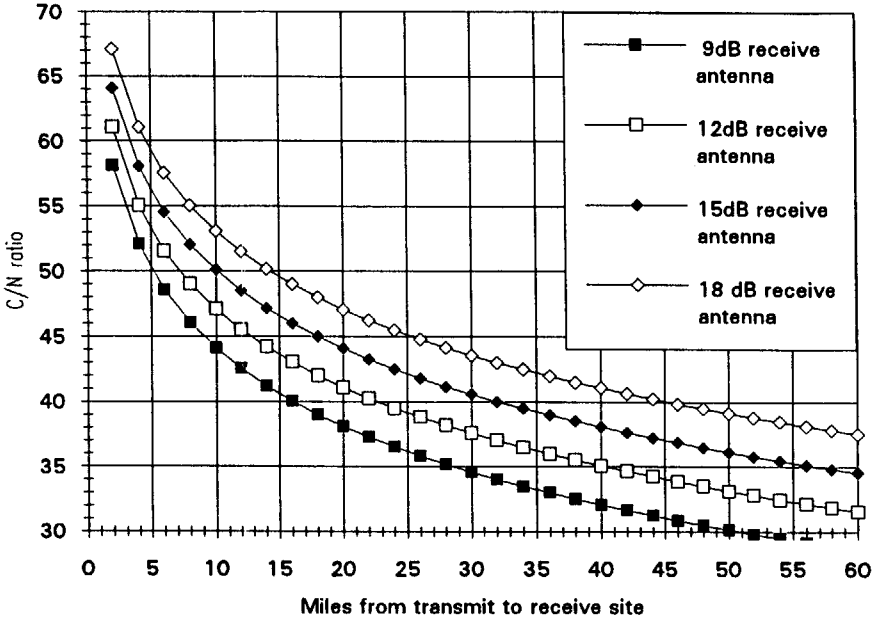
FORM: 80030
REV: A

California Amplifier

C/N vs. Distance With 100 Watts Transmitter Power

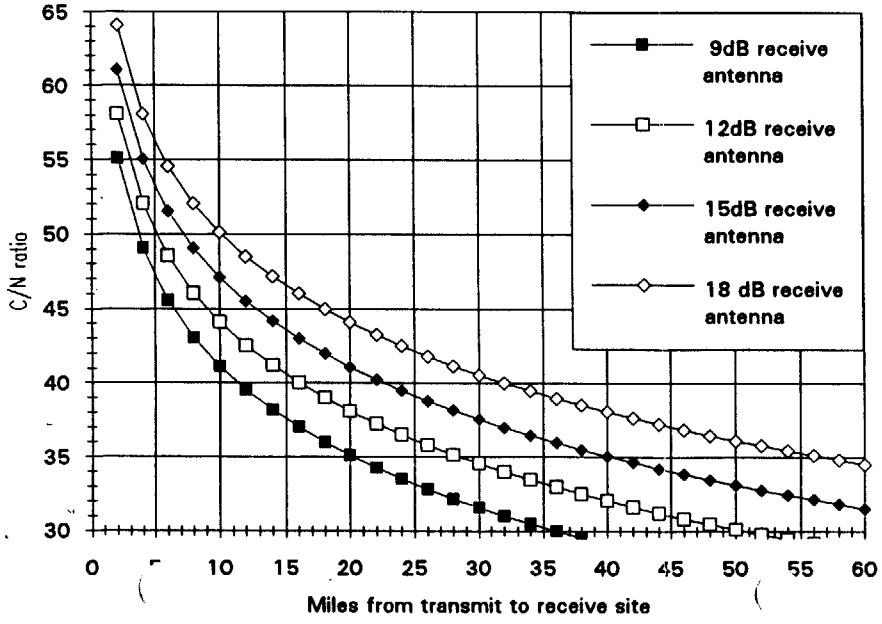


C/N vs. Distance With 50 Watts Transmitter Power

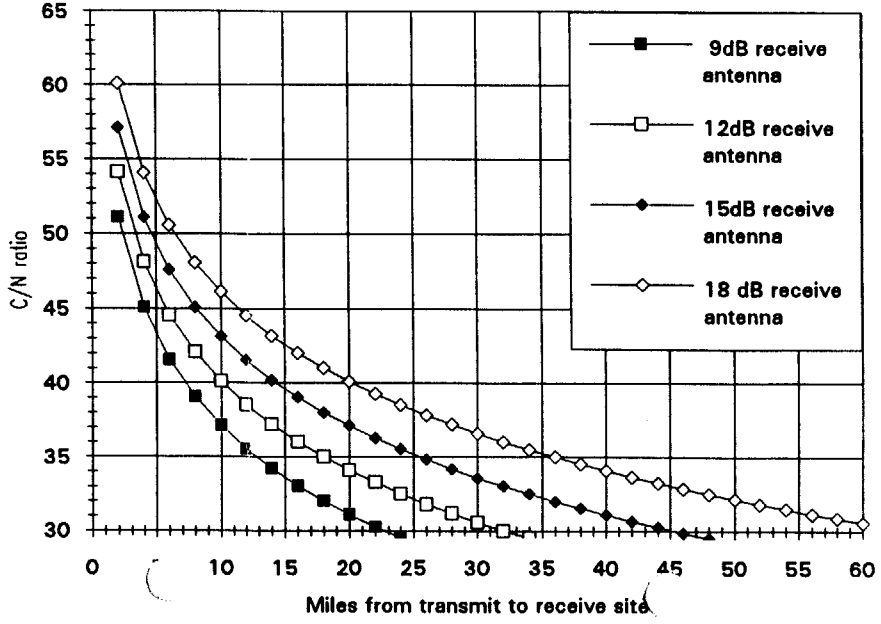


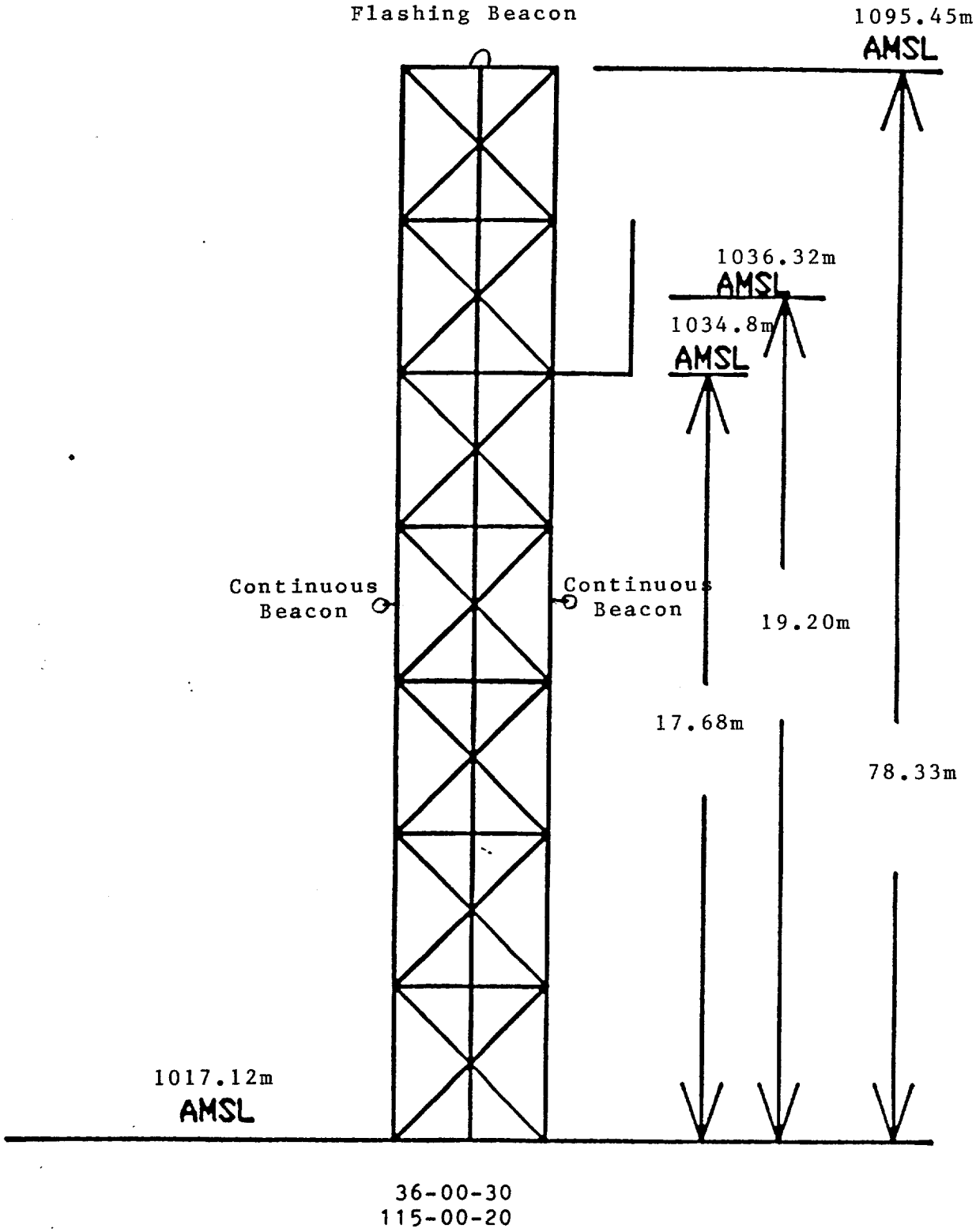
The following values have been assumed:
2 dB Combiner loss
2.4 dB Transmission line loss
13 dB Transmit antenna gain
-104 dBm Receiver noise floor

C/N vs. Distance With 25 Watts Transmitter Power



C/N vs. Distance With 10 Watts Transmitter Power





36-00-30
115-00-20

EXHIBIT 2