

APPLICANT: Lucent Technologies

FCC ID: AS5CMP-33

EXHIBIT 16**Section 2.1049 Measurements Required: Occupied Bandwidth**

In compliance with Section 2.1049(h), a single TDMA carrier was modulated by a pseudo-random data bit stream for all 3 time slots, and the Cellular TDMA Dual Radio Module (CDRM) 44WR54, subject of a separate application under AS5CMP-32, in combination with the Cellular TDMA Multi Carrier Linear Amplifier (CMCLA) 44WA29, subject of this application under AS5CMP-33, output power level was set to provide +30.8 dBm (1.2 Watts) at the transmit antenna terminal. Measurements were made both at the transmit antenna terminal and at the input to the CMCLA to demonstrate that the amplifier does not influence and does not alter the occupied bandwidth. Measurements were first made with the Cellular A-Band simplex transmit bandpass filter at 1) the lowest settable channel Ch 991 (869.04 MHz), 2) at mid band Ch 400 (882.00 MHz), and 3) at the highest settable A-Band channel Ch 716 (891.48 MHz). The second set of measurements were made with the Cellular B-Band simplex transmit bandpass filter at 1) the lowest settable B-Band channel Ch 334 (880.02 MHz), 2) at mid band Ch 500 (885.00 MHz), and 3) at the highest settable B-Band channel Ch 799 (893.97 MHz).

The occupied bandwidth limitations and emission mask for a 30 kHz TDMA carrier, i.e., digital transceiver, is specified in Part 22.917(d)(1-3) as:

Displacement from the Carrier Center Frequency	Required Attenuation Below the Carrier
Greater than 20 kHz up to 45 kHz	At least 26 dBc
Greater than 45 kHz up to 90 kHz	At least 45 dBc
Greater than 90 kHz up to 1 st harmonic	At least 60 dBc Or $43 + 10 \log (\text{Carrier Power in Watts})$ dBc Or whichever is the lesser attenuation

Part 22.917 specifies that the measurement instrumentation resolution bandwidth be set to 300 Hz for displacements from the carrier center frequency equal to or less than 60 kHz. For the 30 kHz TDMA carrier, the spectrum analyzer resolution bandwidth was set to 300 Hz. The standard measurement procedure is to align the center of the carrier with the top of the spectrum analyzer display reticle (i.e., 0 dBm) and reference the required "attenuation below the carrier" (dBc) to the 0 dBm reference. Attenuation below the carrier is then read directly off the 0 dBm to -110 dBm scale. Using the 300 Hz resolution bandwidth requires displacing (offsetting) the 30 kHz modulated carrier from the 0 dBm reference line by:

$$10 \log (\text{carrier bandwidth/instrumentation resolution bandwidth})$$

$$10 \log (30 \text{ kHz}/300 \text{ Hz}) = 20 \text{ dB offset}$$

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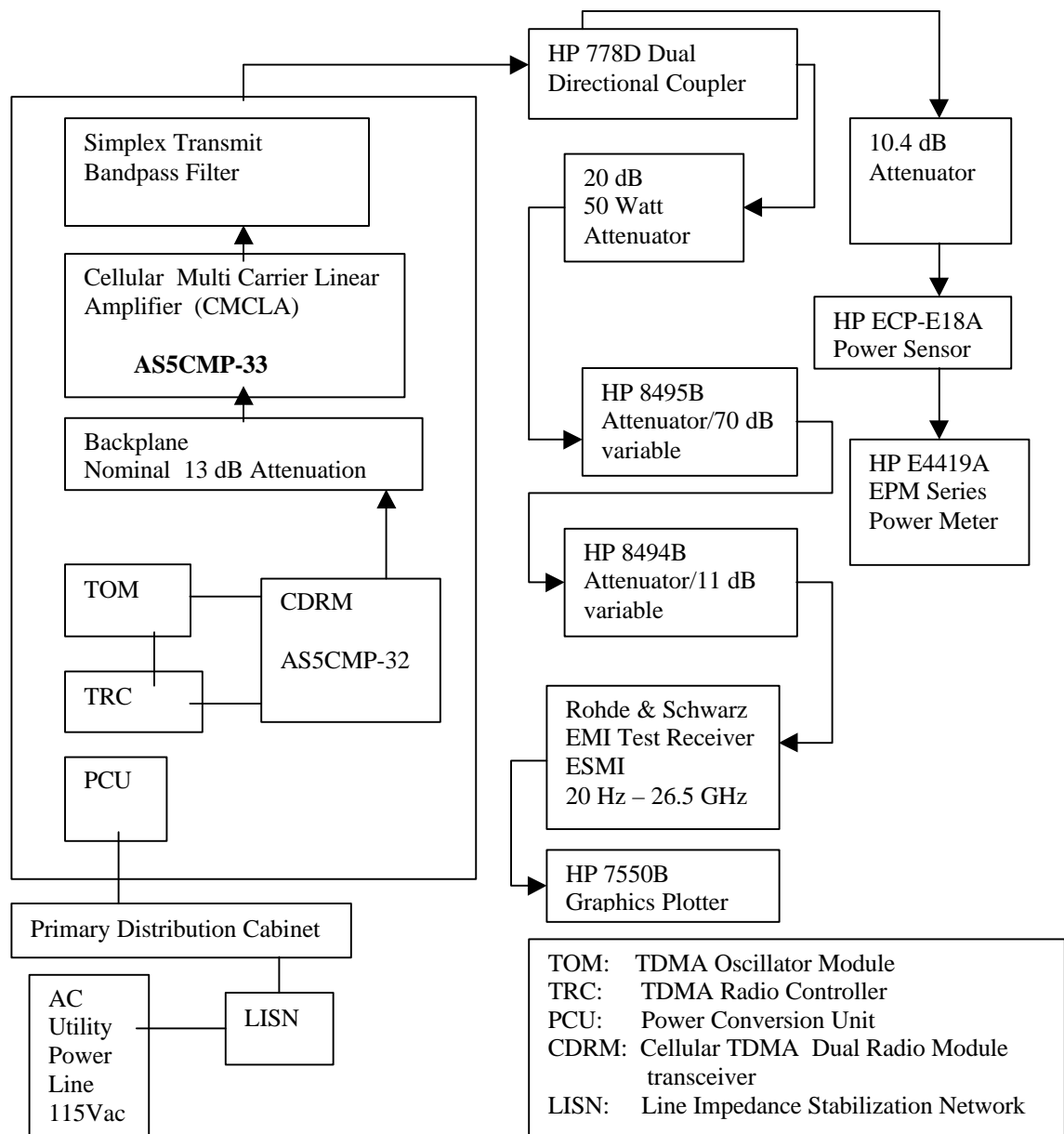
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RESULTS:

The attached occupied bandwidth plots demonstrate full compliance with the requirements of Part 22.917 for the Cellular A-Band and B-Band frequencies specified above. On the basis that all carriers measured were well within the required emission mask, the Cellular TDMA Multi Carrier Linear Amplifier (CMCLA) 44WA29 demonstrated full compliance with Part 22.917 for the occupied bandwidth requirements. It also demonstrated that it does not affect nor influence the occupied bandwidth of the associated Cellular TDMA Dual Radio Module transceiver.

Test set-up for measuring the occupied bandwidth of the Cellular TDMA Multi Carrier Linear Amplifier, in combination with the Cellular TDMA Dual Radio Module transceiver.

FLEXENT™ Cellular TDMA Microcell J41698B-1

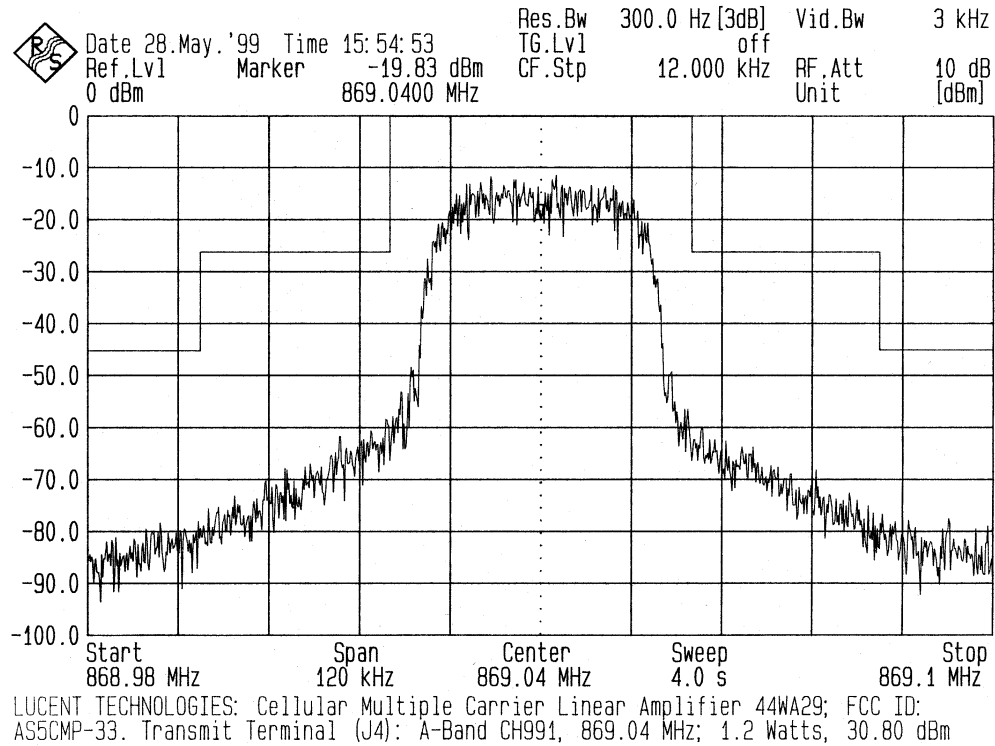


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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 991 869.04 MHz

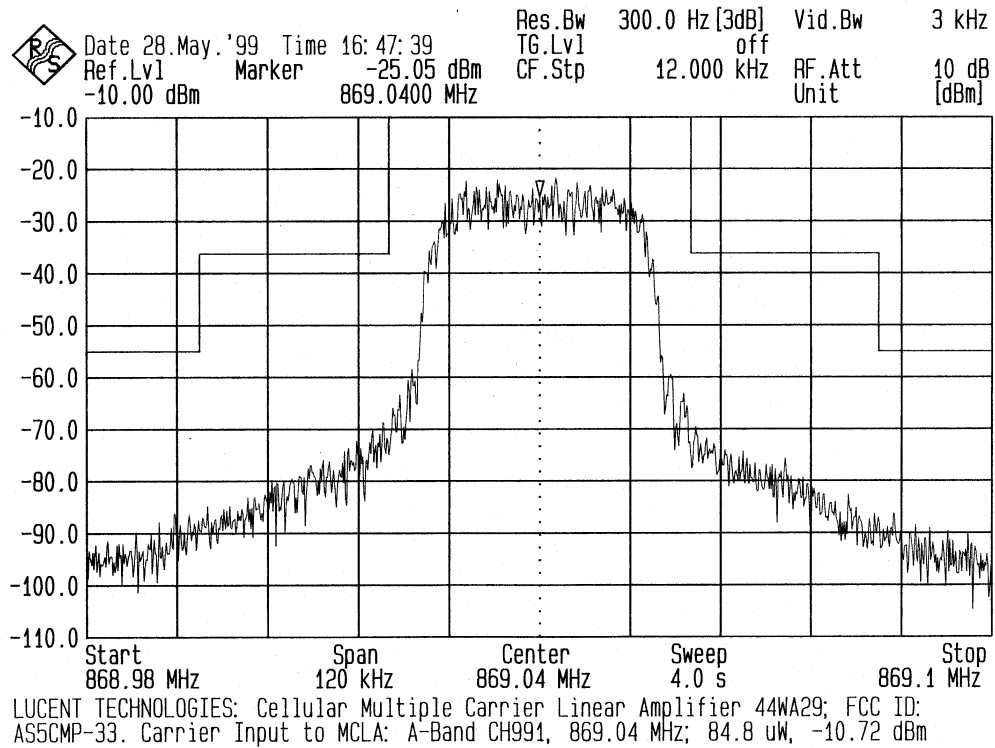
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 991 869.04 MHz

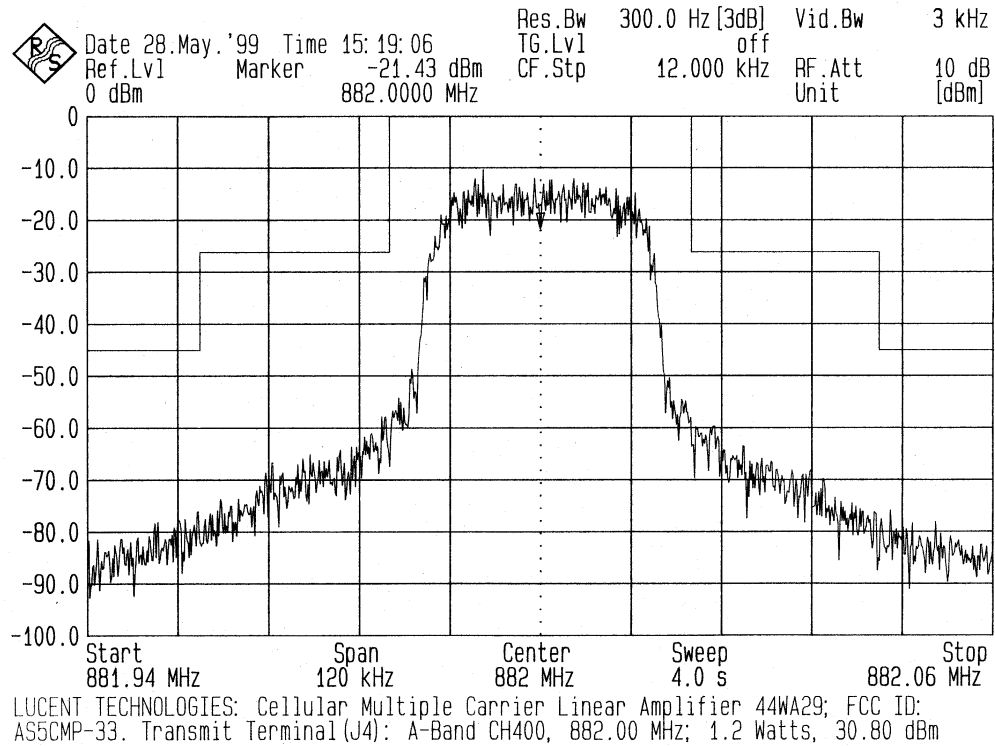
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA

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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 400, 882.00 MHz

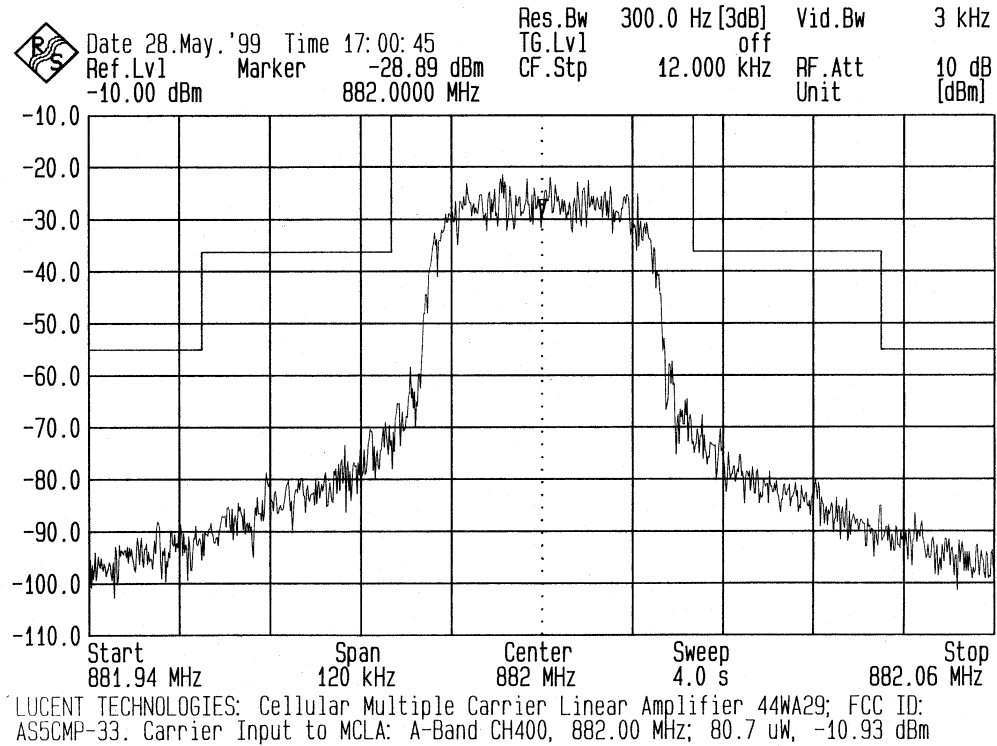
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 991 869.04 MHz

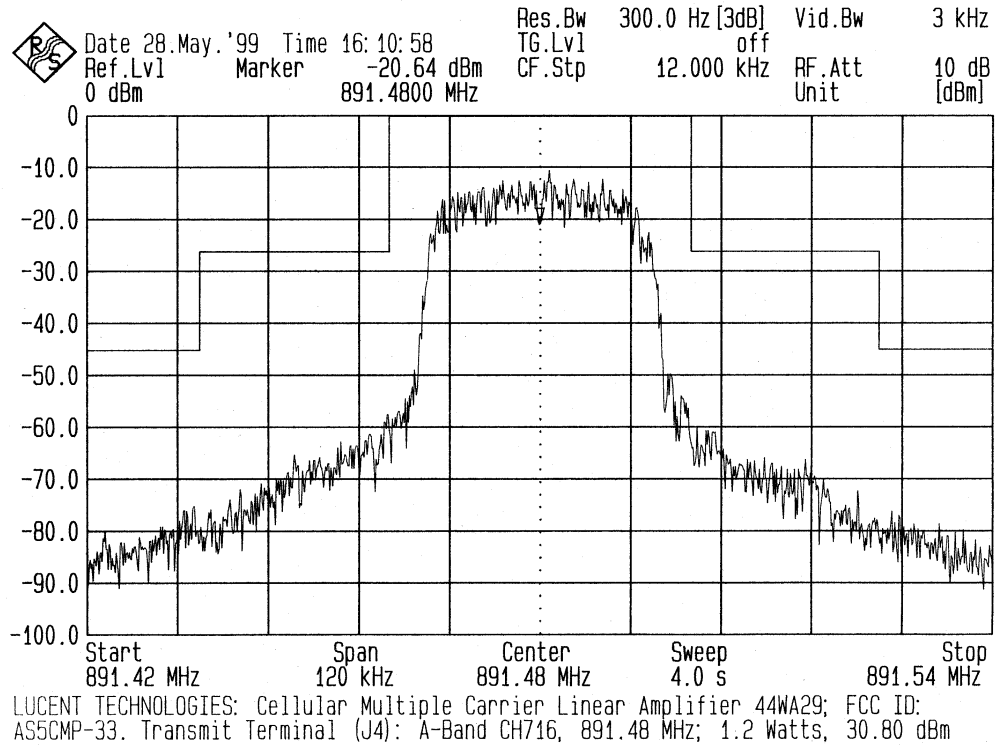
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA

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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 716, 891.48 MHz

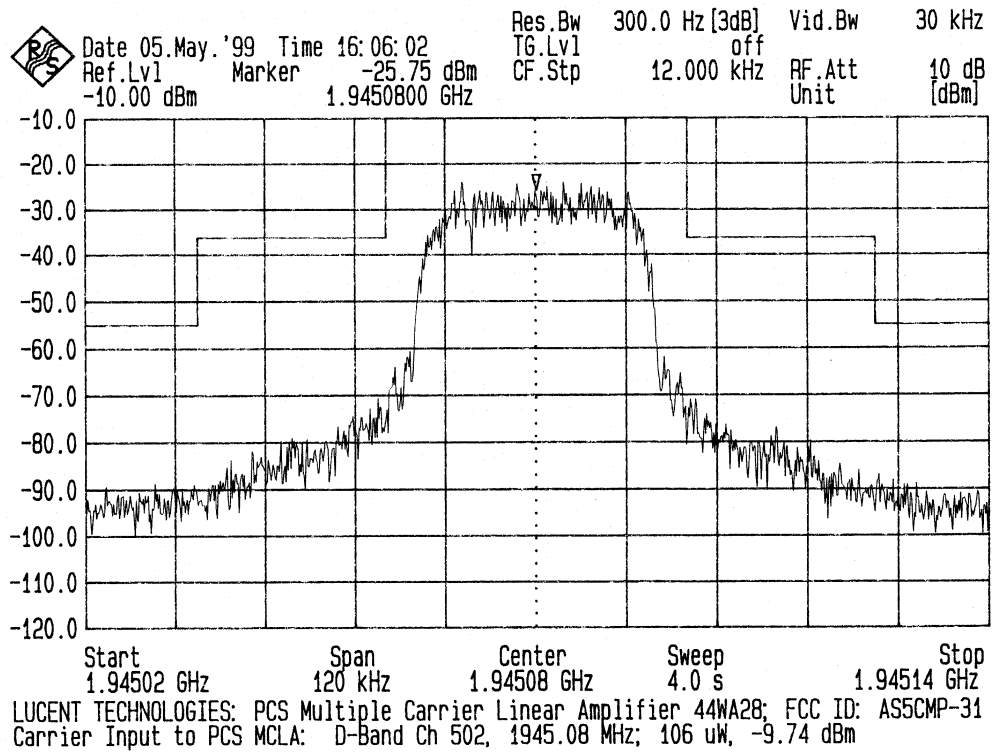
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular A-Band Channel 716, 891.48 MHz

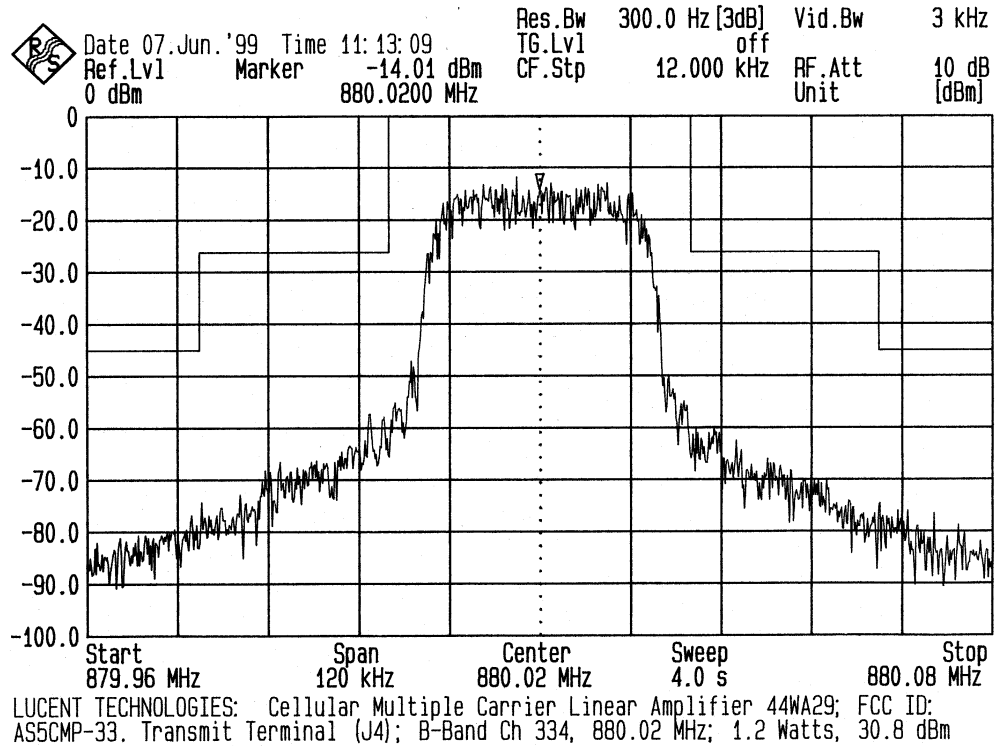
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 334, 880.02 MHz

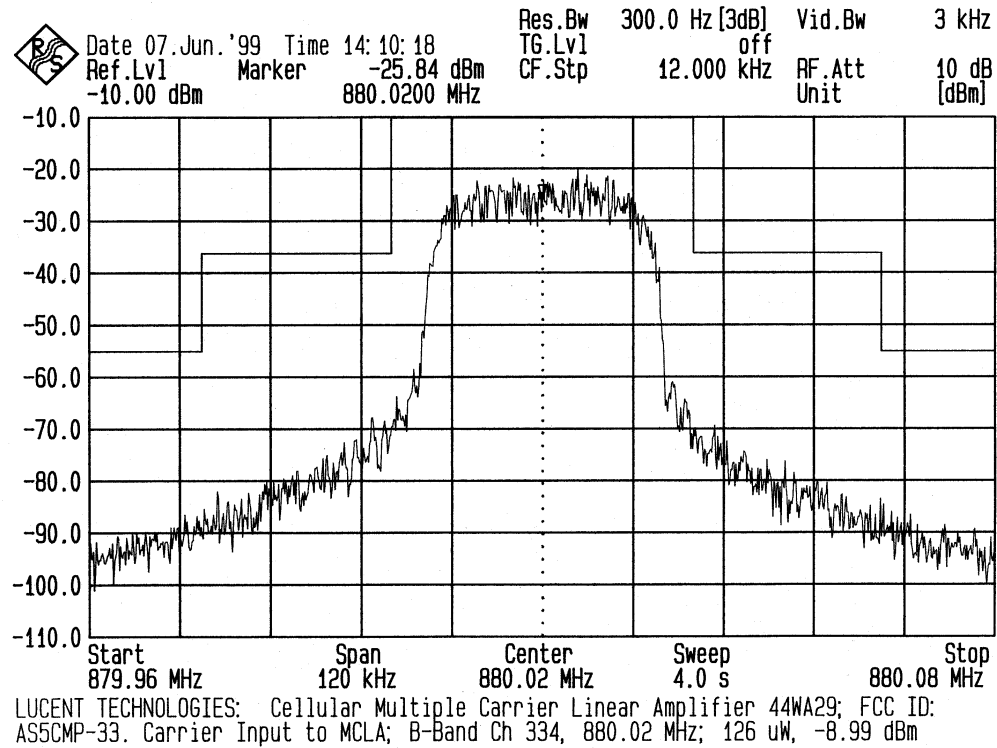
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 334, 880.02 MHz

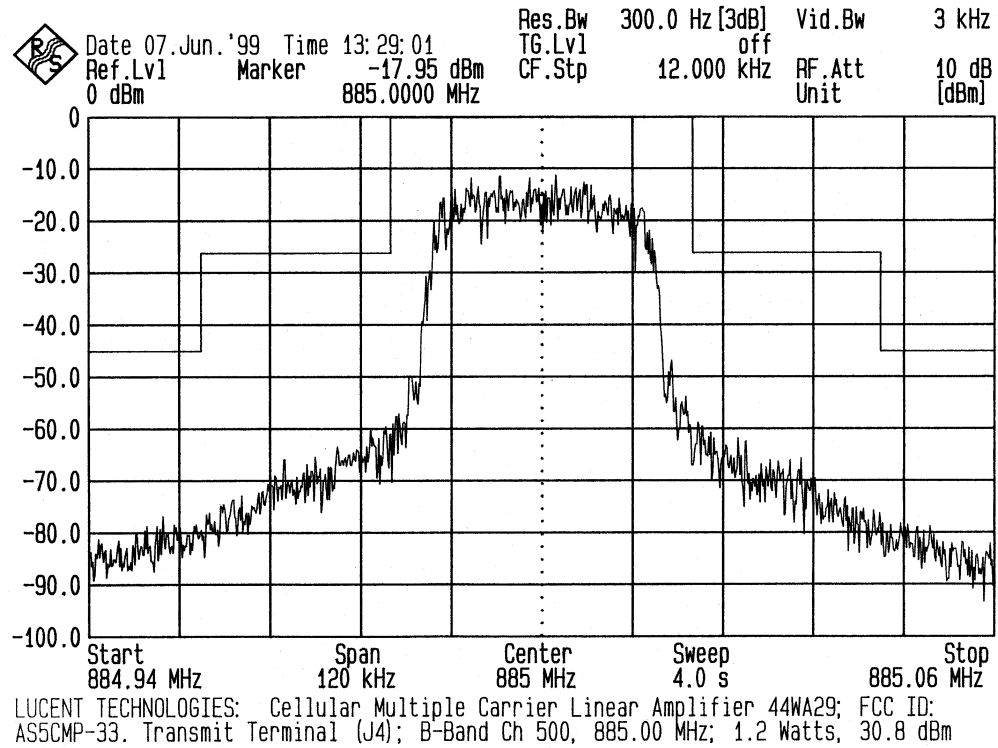
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 500, 885.00 MHz

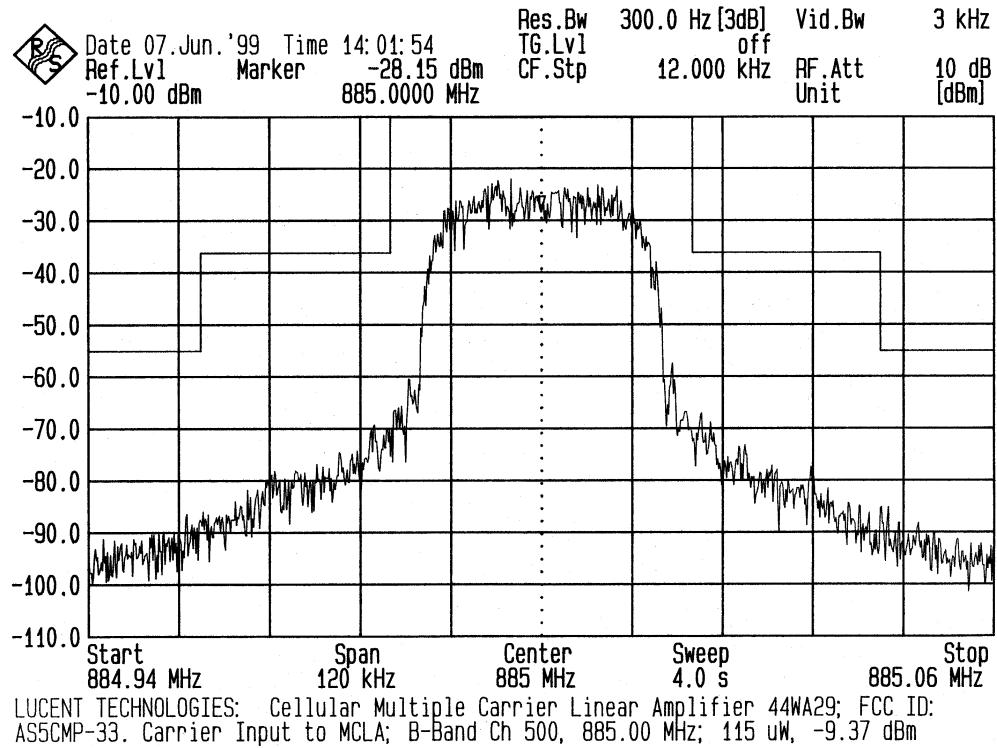
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 500, 885.00 MHz

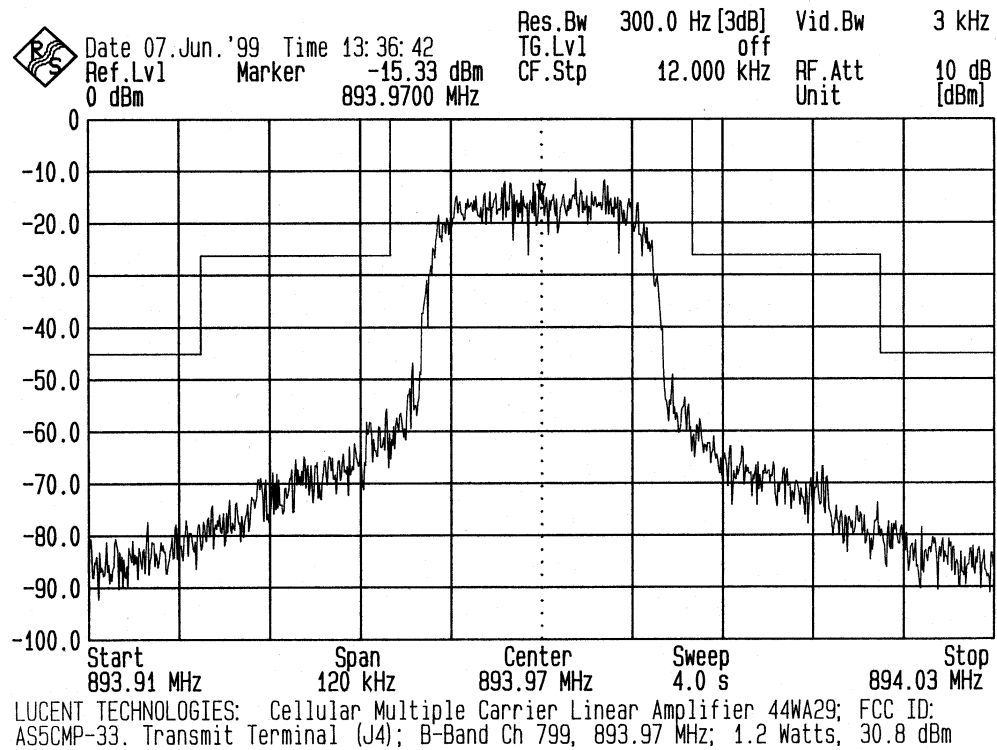
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 799, 893.97 MHz

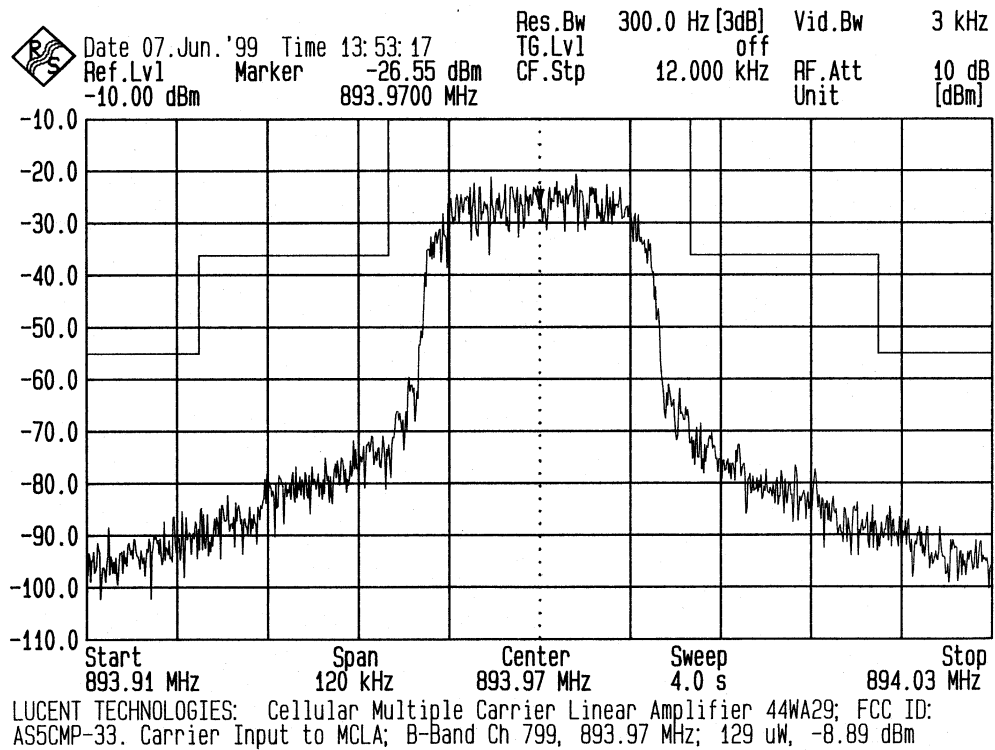
Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, output at transmit antenna terminal

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OCCUPIED BANDWIDTH PLOTS:



Cellular B-Band Channel 799, 893.97 MHz

Cellular TDMA Multi Carrier Linear Amplifier, 44WA29, input signal to CMCLA