Federal Communications Commission
Office of Engineering and Technology
Equipment Authorization Division
Application Processing Branch
7435 Oakland Mills Road
Columbia, MD 21046

Lucent Technologies Inc.
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

November 16, 1999

Reference: FCC ID: AS5BTS2K-01
Applicant: Lucent Technologies Inc.
731 Confirmation Number: EA95365
Correspondence Number: 10554

Dear Examiner:

With reference to your email correspondence Reference No: 10554, I would like to submit additional information on FCC ID: AS5BTS2K-01 for type approval of GSM 1900 Transceiver, answering questions in the sequence they have been asked.

Item 1: The data demonstrates noncompliance if the EUT is tuned to channels 200 kHz from frequency block edges. Compliance at channels 400 kHz from frequency block edges is unclear (many plots were taken at channels 600 kHz from block edges). What is the actual, intended, tuning range of the EUT? How will this tuning range be ensured?

Response: The cover pages for Occupied Bandwidth and Antenna Conducted Spurious Emission for Block A Channel 513, there is a typographical error. The frequency for Channel 513 was stated 1930.6 MHz instead of 1930.4 MHz. The plots show correct frequency (1930.4 MHz).

The tuning range for EUT is 1930.2 to 1989.8MHz. The channel allocation plan for GSM is attached. The channels highlighted are not available under software control which is not modifiable by the user.

Item 2: What is the actual, measured occupied bandwidth?

Response: Extra plots showing Occupied Bandwidth at 99% of power at the middle of each Block is attached. Measurements were made using HP 8563E Spectrum Analyzer designed to measure 99% power bandwidth. The measured 99% power bandwidth is 240 to 244 kHz.

Item 3: Section 24.238(b) requires that a RBW of at least 1% of the emission bandwidth be used to demonstrate RF conducted out-of-band emission compliance at the frequency block edges. A RBW of 10 kHz was used. These bandedge measurements may have to be remade, depending on the answer to (2) above. For GSM emissions, the typical RBW used is 30 kHz. Please note Section 24.238(c).

Response: See response to item 2 above.

Item 4: Please submit a letter specifying those exhibits for which confidential treatment is sought. Justification must be provided for atypical requests, e.g., internal photos and user's manual.

Response: Letter attached.

Item 5: FYI: the field strength limit for radiated spurious emissions is 71.7 dBμV/m at 10m, and not the value used. The limit is based on the EIRP, not the ERP.

Response: The Measured Field Strength levels at 10m distance were 20 dB lower than 71.7 dBμV/m.

Dheena Moongilan
Distinguished Member of Technical Staff
Bldg. 11B, Room 184

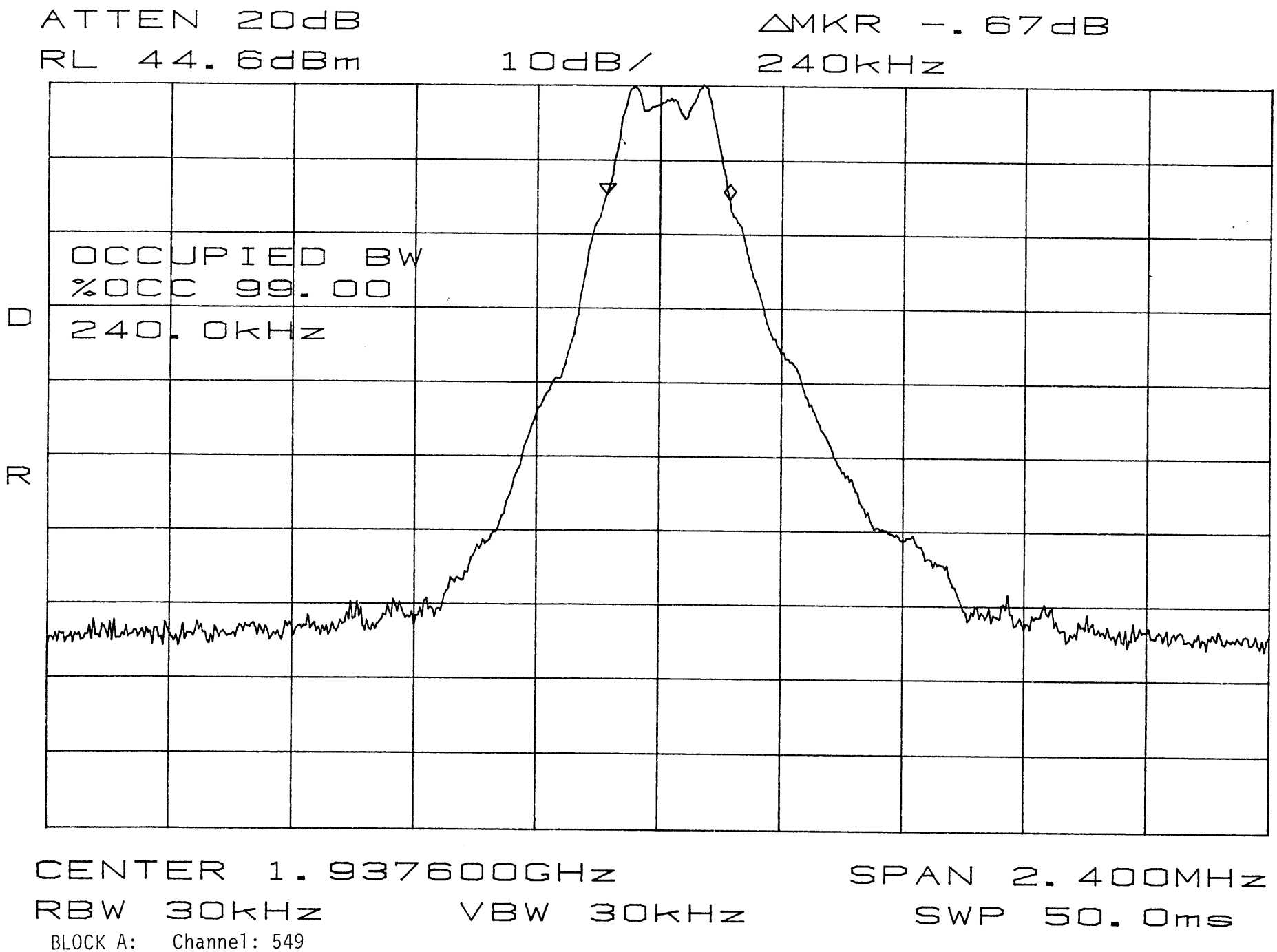
Frequency range of PCS 1900 (n =512...810)

dl(n) = 1930.2 + 0.2*(n - 512)/MHz

ul(n) = 1850.2 + 0.2*(n - 512)/MHz

n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink	n	uplink	bl	downlink
512	1850,2	x	1930,2	550	1857,8	A	1937,8	588	1865,4	D	1945,4	626	1873,0	B	1953,0	664	1880,6	B	1960,6	702	1888,2	E	1968,2	740	1895,8	C	1975,8	778	1903,4	C	1983,4
513	1850,4	A	1930,4	551	1858,0	A	1938,0	589	1865,6	D	1945,6	627	1873,2	B	1953,2	665	1880,8	B	1960,8	703	1888,4	E	1968,4	741	1896,0	C	1976,0	779	1903,6	C	1983,6
514	1850,6	A	1930,6	552	1858,2	A	1938,2	590	1865,8	D	1945,8	628	1873,4	B	1953,4	666	1881,0	B	1961,0	704	1888,6	E	1968,6	742	1896,2	C	1976,2	780	1903,8	C	1983,8
515	1850,8	A	1930,8	553	1858,4	A	1938,4	591	1866,0	D	1946,0	629	1873,6	B	1953,6	667	1881,2	B	1961,2	705	1888,8	E	1968,8	743	1896,4	C	1976,4	781	1904,0	C	1984,0
516	1851,0	A	1931,0	554	1858,6	A	1938,6	592	1866,2	D	1946,2	630	1873,8	B	1953,8	668	1881,4	B	1961,4	706	1889,0	E	1969,0	744	1896,6	C	1976,6	782	1904,2	C	1984,2
517	1851,2	A	1931,2	555	1858,8	A	1938,8	593	1866,4	D	1946,4	631	1874,0	B	1954,0	669	1881,6	B	1961,6	707	1889,2	E	1969,2	745	1896,8	C	1976,8	783	1904,4	C	1984,4
518	1851,4	A	1931,4	556	1859,0	A	1939,0	594	1866,6	D	1946,6	632	1874,2	B	1954,2	670	1881,8	B	1961,8	708	1889,4	E	1969,4	746	1897,0	C	1977,0	784	1904,6	C	1984,6
519	1851,6	A	1931,6	557	1859,2	A	1939,2	595	1866,8	D	1946,8	633	1874,4	B	1954,4	671	1882,0	B	1962,0	709	1889,6	E	1969,6	747	1897,2	C	1977,2	785	1904,8	C	1984,8
520	1851,8	A	1931,8	558	1859,4	A	1939,4	596	1867,0	D	1947,0	634	1874,6	B	1954,6	672	1882,2	B	1962,2	710	1889,8	x	1969,8	748	1897,4	C	1977,4	786	1905,0	C	1985,0
521	1852,0	A	1932,0	559	1859,6	A	1939,6	597	1867,2	D	1947,2	635	1874,8	B	1954,8	673	1882,4	B	1962,4	711	1890,0	x	1970,0	749	1897,6	C	1977,6	787	1905,2	C	1985,2
522	1852,2	A	1932,2	560	1859,8	A	1939,8	598	1867,4	D	1947,4	636	1875,0	B	1955,0	674	1882,6	B	1962,6	712	1890,2	x	1970,2	750	1897,8	C	1977,8	788	1905,4	C	1985,4
523	1852,4	A	1932,4	561	1860,0	A	1940,0	599	1867,6	D	1947,6	637	1875,2	B	1955,2	675	1882,8	B	1962,8	713	1890,4	F	1970,4	751	1898,0	C	1978,0	789	1905,6	C	1985,6
524	1852,6	A	1932,6	562	1860,2	A	1940,2	600	1867,8	D	1947,8	638	1875,4	B	1955,4	676	1883,0	B	1963,0	714	1890,6	F	1970,6	752	1898,2	C	1978,2	790	1905,8	C	1985,8
525	1852,8	A	1932,8	563	1860,4	A	1940,4	601	1868,0	D	1948,0	639	1875,6	B	1955,6	677	1883,2	B	1963,2	715	1890,8	F	1970,8	753	1898,4	C	1978,4	791	1906,0	C	1986,0
526	*1853,0*	A	1933,0	564	1860,6	A	1940,6	602	1868,2	D	1948,2	640	1875,8	B	1955,8	678	1883,4	B	1963,4	716	1891,0	F	1971,0	754	1898,6	C	1978,6	792	1906,2	C	1986,2
527	1853,2	A	1933,2	565	1860,8	A	1940,8	603	1868,4	D	1948,4	641	1876,0	B	1956,0	679	1883,6	B	1963,6	717	1891,2	F	1971,2	755	1898,8	C	1978,8	793	1906,4	C	1986,4
528	1853,4	A	1933,4	566	1861,0	A	1941,0	604	1868,6	D	1948,6	642	1876,2	B	1956,2	680	1883,8	B	1963,8	718	1891,4	F	1971,4	756	1899,0	C	1979,0	794	1906,6	C	1986,6
529	1853,6	A	1933,6	567	1861,2	A	1941,2	605	1868,8	D	1948,8	643	1876,4	B	1956,4	681	1884,0	B	1964,0	719	1891,6	F	1971,6	757	1899,2	C	1979,2	795	1906,8	C	1986,8
530	1853,8	A	1933,8	568	1861,4	A	1941,4	606	1869,0	D	1949,0	644	1876,6	B	1956,6	682	1884,2	B	1964,2	720	1891,8	F	1971,8	758	1899,4	C	1979,4	796	1907,0	C	1987,0
531	1854,0	A	1934,0	569	1861,6	A	1941,6	607	1869,2	D	1949,2	645	1876,8	B	1956,8	683	1884,4	B	1964,4	721	1892,0	F	1972,0	759	1899,6	C	1979,6	797	1907,2	C	1987,2
532	1854,2	A	1934,2	570	1861,8	A	1941,8	608	1869,4	D	1949,4	646	1877,0	B	1957,0	684	1884,6	B	1964,6	722	1892,2	F	1972,2	760	1899,8	C	1979,8	798	1907,4	C	1987,4
533	1854,4	A	1934,4	571	1862,0	A	1942,0	609	1869,6	D	1949,6	647	1877,2	B	1957,2	685	1884,8	x	1964,8	723	1892,4	F	1972,4	761	1900,0	C	1980,0	799	1907,6	C	1987,6
534	1854,6	A	1934,6	572	1862,2	A	1942,2	610	1869,8	x	1949,8	648	1877,4	B	1957,4	686	1885,0	x	1965,0	724	1892,6	F	1972,6	762	1900,2	C	1980,2	800	1907,8	C	1987,8
535	1854,8	A	1934,8	573	1862,4	A	1942,4	611	1870,0	x	1950,0	649	1877,6	B	1957,6	687	1885,2	x	1965,2	725	1892,8	F	1972,8	763	1900,4	C	1980,4	801	1908,0	C	1988,0
536	1855,0	A	1935,0	574	1862,6	A	1942,6	612	1870,2	x	1950,2	650	1877,8	B	1957,8	688	1885,4	E	1965,4	726	1893,0	F	1973,0	764	1900,6	C	1980,6	802	1908,2	C	1988,2
537	1855,2	A	1935,2	575	1862,8	A	1942,8	613	1870,4	B	1950,4	651	1878,0	B	1958,0	689	1885,6	E	1965,6	727	1893,2	F	1973,2	765	1900,8	C	1980,8	803	1908,4	C	1988,4
538	1855,4	A	1935,4	576	1863,0	A	1943,0	614	1870,6	B	1950,6	652	1878,2	B	1958,2	690	1885,8	E	1965,8	728	1893,4	F	1973,4	766	1901,0	C	1981,0	804	1908,6	C	1988,6
539	1855,6	A	1935,6	577	1863,2	A	1943,2	615	1870,8	B	1950,8	653	1878,4	B	1958,4	691	1886,0	E	1966,0	729	1893,6	F	1973,6	767	1901,2	C	1981,2	805	1908,8	C	1988,8
540	1855,8	A	1935,8	578	1863,4	A	1943,4	616	1871,0	B	1951,0	654	1878,6	B	1958,6	692	1886,2	E	1966,2	730	1893,8	F	1973,8	768	1901,4	C	1981,4	806	1909,0	C	1989,0
541	1856,0	A	1936,0	579	1863,6	A	1943,6	617	1871,2	B	1951,2	655	1878,8	B	1958,8	693	1886,4	E	1966,4	731	1894,0	F	1974,0	769	1901,6	C	1981,6	807	1909,2	C	1989,2
542	1856,2	A	1936,2	580	1863,8	A	1943,8	618	1871,4	B	1951,4	656	1879,0	B	1959,0	694	1886,6	E	1966,6	732	1894,2	F	1974,2	770	1901,8	C	1981,8	808	1909,4	C	1989,4
543	1856,4	A	1936,4	581	1864,0	A	1944,0	619	1871,6	B	1951,6	657	1879,2	B	1959,2	695	1886,8	E	1966,8	733	1894,4	F	1974,4	771	1902,0	C	1982,0	809	1909,6	C	1989,6
544	1856,6	A	1936,6	582	1864,2	A	1944,2	620	1871,8	B	1951,8	658	1879,4	B	1959,4	696	1887,0	E	1967,0	734	1894,6	F	1974,6	772	1902,2	C	1982,2	810	1909,8	x	1989,8
545	1856,8	A	1936,8	583	1864,4	A	1944,4	621	1872,0	B	1952,0	659	1879,6	B	1959,6	697	1887,2	E	1967,2	735	1894,8	x	1974,8	773	1902,4	C	1982,4				
546	1857,0	A	1937,0	584	1864,6	A	1944,6	622	1872,2	B	1952,2	660	1879,8	B	1959,8	698	1887,4	E	1967,4	736	1895,0	x	1975,0	774	1902,6	C	1982,6				
547	1857,2	A	1937,2	585	1864,8	x	1944,8	623	1872,4	B	1952,4	661	1880,0	B	1960,0	699	1887,6	E	1967,6	737	1895,2	x	1975,2	775	1902,8	C	1982,8				
548	1857,4	A	1937,4	586	1865,0	x	1945,0	624	1872,6	B	1952,6	662	1880,2	B	1960,2	700	1887,8	E	1967,8	738	1895,4	C	1975,4	776	1903,0	C	1983,0				
549	1857,6	A	1937,6	587	1865,2	x	1945,2	625	1872,8	B	1952,8	663	1880,4	B	1960,4	701	1888,0	E	1968,0	739	1895,6	C	1975,6	777	1903,2	C	1983,2				

Note:. Channels high lighted are **not available for GSM1900**, in accordance with **FCC Part 24**


ATTEN 20dB
RL 44.6dBm
10dB/
ΔMKR -.67dB
240kHz
OCCUPIED BW
%OCC 99.00
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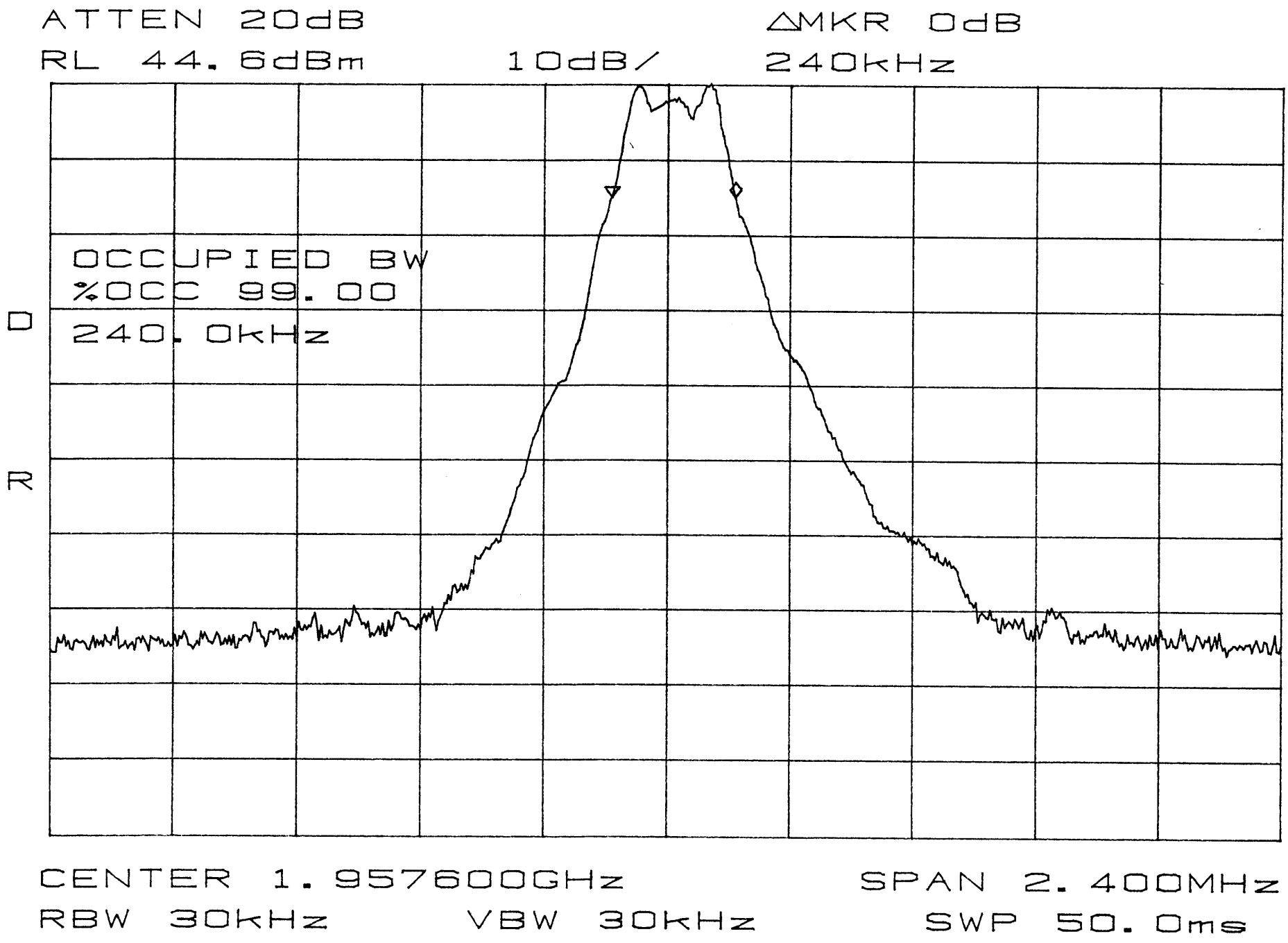
D
R
CENTER 1.937600GHz
SPAN 2.400MHz
RBW 30kHz
VBW 30kHz
SWP 50.0ms
BLOCK A: Channel: 549



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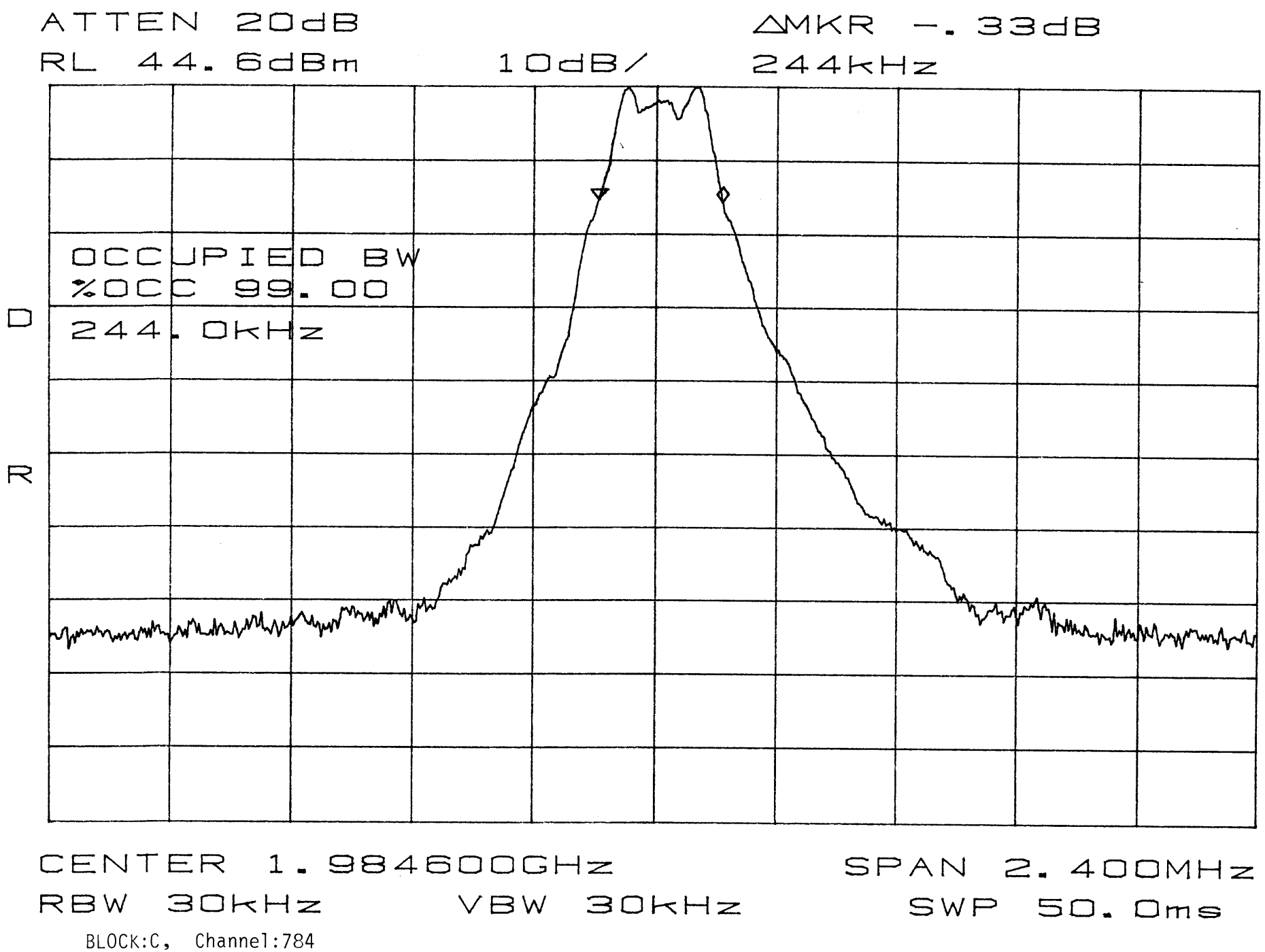

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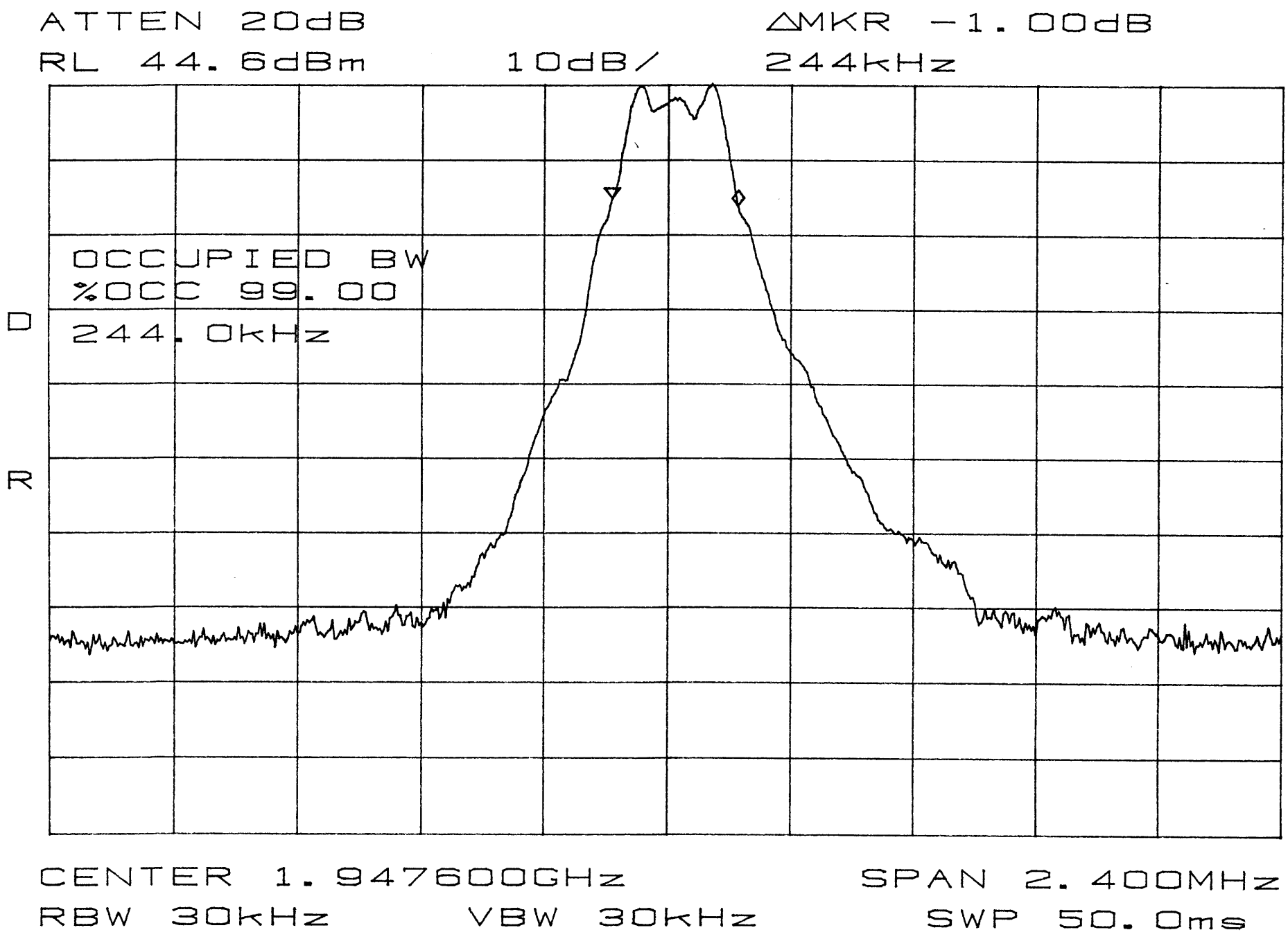

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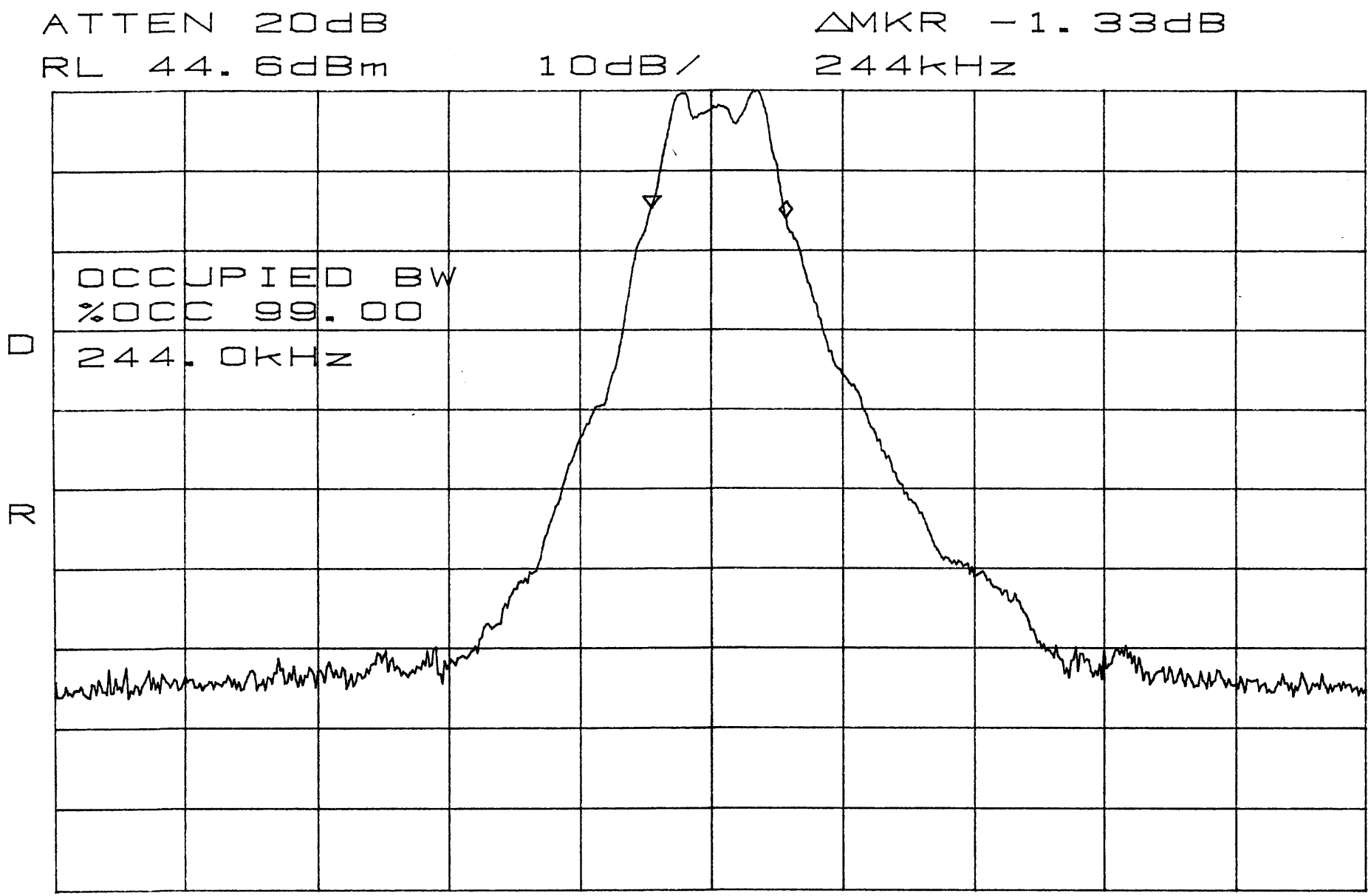

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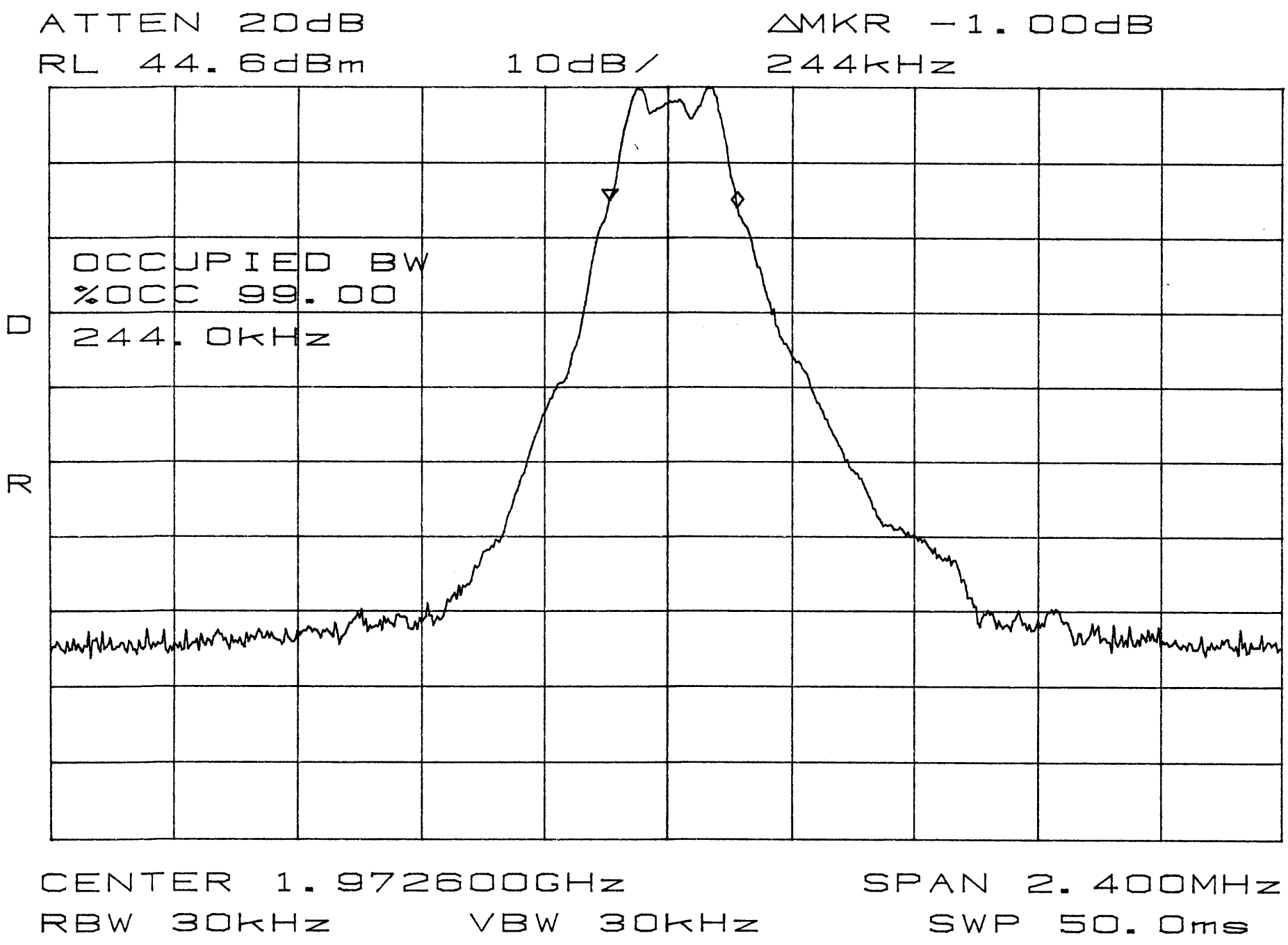

BLOCK: F, Channel: 724

Lucent Technologies
Bell Labs Innovations

Global Product Compliance Laboratory
101 Crawfords Corner Road
Holmdel, NJ 07733-3030

November 16, 1999

Subject: **Confidential Treatment for User's Manual and Internal Photos – FCC ID: AS5BTS2K-01**

Dear Examiner:

The 'GSM 1900 Transceiver' FCC ID AS5BTS2K-01 will not be sold to the general public, but restricted to network operators. The 'User's Manual' is provided to the network operators under a non-disclosure agreement. The Lucent Technologies holds the proprietary rights of equipment construction. The general public does not have access to either User's Manual or Internal Construction of GSM 1900 transceiver. Therefore I would like to request you to treat the following as confidential.

(1) User's Manual
(2) Internal photos

Sincerely,

Dheena Moongilan
Distinguished Member of Technical Staff
Bldg. 11B, Room 184