

RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

Page: 1 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
TX 1950						
30.1 MHz	41.76 Pk	0.5 / 20.8 / 28.3 / 0.0	34.76	V / 1.00 / 0	See	-13
30.63 MHz	43.39 Pk	0.51 / 20.47 / 28.3 / 0.0	36.07	V / 1.00 / 0	Measurement	-13
39.72 MHz	57.82 Pk	0.6 / 16.96 / 28.3 / 0.0	47.08	V / 1.00 / 0	Summary	-13
41.4 MHz	50.73 Pk	0.6 / 16.4 / 28.3 / 0.0	39.43	V / 1.00 / 0	Page 8	-13
48.37 MHz	65.26 Pk	0.7 / 14.2 / 28.3 / 0.0	51.86	V / 1.00 / 0		-13
49.78 MHz	57.79 Pk	0.7 / 13.9 / 28.28 / 0.0	44.11	V / 1.00 / 0		-13
55.93 MHz	51.09 Pk	0.78 / 12.4 / 28.2 / 0.0	36.07	V / 1.00 / 0		-13
59.32 MHz	55.94 Pk	0.73 / 11.7 / 28.2 / 0.0	40.17	V / 1.00 / 0		-13
59.84 MHz	56.75 Pk	0.72 / 11.6 / 28.2 / 0.0	40.87	V / 1.00 / 0		-13
72.025 MHz	69.51 Pk	0.8 / 8.7 / 28.15 / 0.0	50.86	V / 1.00 / 0		-13
72.53 MHz	69.01 Pk	0.8 / 8.6 / 28.16 / 0.0	50.25	V / 1.00 / 0		-13
74.48 MHz	63.48 Pk	0.8 / 8.1 / 28.2 / 0.0	44.18	V / 1.00 / 0		-13
85.72 MHz	63.33 Pk	0.9 / 7.26 / 28.2 / 0.0	43.29	V / 1.00 / 0		-13
89.73 MHz	70.21 Pk	0.96 / 7.57 / 28.2 / 0.0	50.55	V / 1.00 / 0		-13
96.47 MHz	68.06 Pk	1.0 / 8.41 / 28.2 / 0.0	49.27	V / 1.00 / 0		-13
98.08 MHz	71.79 Pk	1.0 / 8.69 / 28.2 / 0.0	53.28	V / 1.00 / 0		-13
103.13 MHz	64.94 Pk	1.0 / 9.13 / 28.2 / 0.0	46.87	V / 1.00 / 0		-13
121.68 MHz	49.52 Pk	1.1 / 9.04 / 28.2 / 0.0	31.46	V / 1.00 / 0		-13
141.955 MHz	60.5 Pk	1.13 / 8.88 / 28.3 / 0.0	42.21	V / 1.00 / 0		-13
148.998 MHz	48.1 Pk	1.2 / 9.9 / 28.3 / 0.0	30.9	V / 1.00 / 0		-13
160.43 MHz	45.29 Pk	1.3 / 8.91 / 28.2 / 0.0	27.3	V / 1.00 / 0		-13
164.11 MHz	47.28 Pk	1.3 / 8.75 / 28.2 / 0.0	29.13	V / 1.00 / 0		-13
212.96 MHz	67.62 Pk	1.4 / 10.77 / 28.2 / 0.0	51.59	V / 1.00 / 0		-13
218.946 MHz	47.8 Pk	1.4 / 10.92 / 28.2 / 0.0	31.92	V / 1.00 / 0		-13
235.91 MHz	51.0 Pk	1.46 / 11.3 / 28.26 / 0.0	35.5	V / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

Page: 2 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
265.37 MHz	53.6 Pk	1.53 / 12.56 / 28.16 / 0.0	39.54	V / 1.00 / 0	See	-13
284.01 MHz	64.35 Pk	1.63 / 12.8 / 28.27 / 0.0	50.5	V / 1.00 / 0	Measurement	-13
354.98 MHz	44.9 Pk	1.85 / 15.0 / 28.2 / 0.0	33.55	V / 1.00 / 0	Summary	-13
394.91 MHz	54.5 Pk	1.9 / 15.33 / 28.1 / 0.0	43.64	V / 1.00 / 0	Page 8	-13
426.0 MHz	63.35 Pk	2.0 / 16.9 / 28.09 / 0.0	54.16	V / 1.00 / 0		-13
496.99 MHz	62.95 Pk	2.2 / 17.45 / 28.1 / 0.0	54.5	V / 1.00 / 0		-13
567.97 MHz	60.4 Pk	2.33 / 18.32 / 28.1 / 0.0	52.94	V / 1.00 / 0		-13
575.04 MHz	35.65 Pk	2.34 / 18.6 / 28.1 / 0.0	28.49	V / 1.00 / 0		-13
638.97 MHz	54.0 Pk	2.5 / 19.81 / 28.0 / 0.0	48.31	V / 1.00 / 0		-13
709.98 MHz	56.85 Pk	2.65 / 20.36 / 28.0 / 0.0	51.86	V / 1.00 / 0		-13
735.25 MHz	32.8 Pk	2.8 / 21.4 / 28.0 / 0.0	29.0	V / 1.00 / 0		-13
780.96 MHz	52.9 Pk	2.71 / 21.7 / 27.91 / 0.0	49.4	V / 1.00 / 0		-13
851.98 MHz	44.65 Pk	2.9 / 22.3 / 27.7 / 0.0	42.15	V / 1.00 / 0		-13
922.96 MHz	50.15 Pk	2.96 / 23.47 / 27.7 / 0.0	48.87	V / 1.00 / 0		-13
993.99 MHz	52.15 Pk	3.17 / 22.7 / 27.7 / 0.0	50.32	V / 1.00 / 0		-13
1.065 GHz	37.8 Pk	3.27 / 23.1 / 27.7 / 0.0	36.47	V / 1.00 / 0		-13
1.065 GHz	37.8 Pk	3.27 / 23.11 / 27.7 / 0.0	36.47	V / 1.00 / 0		-13
1.136 GHz	43.8 Pk	3.23 / 23.9 / 27.7 / 0.0	43.23	V / 1.00 / 0		-13
1.207 GHz	41.8 Pk	3.34 / 24.04 / 27.71 / 0.0	41.47	V / 1.00 / 0		-13
1.278 GHz	43.9 Pk	3.59 / 24.82 / 27.8 / 0.0	44.52	V / 1.00 / 0		-13
1.349 GHz	41.7 Pk	3.6 / 25.76 / 27.87 / 0.0	43.18	V / 1.00 / 0		-13
1.491 GHz	39.7 Pk	3.82 / 26.96 / 28.02 / 0.0	42.46	V / 1.00 / 0		-13
1.562 GHz	43.9 Pk	3.89 / 26.8 / 28.09 / 0.0	46.5	V / 1.00 / 0		-13
1.562 GHz	43.6 Pk	3.89 / 26.8 / 28.09 / 0.0	46.2	V / 1.00 / 0		-13
1.775 GHz	40.2 Pk	4.21 / 28.4 / 27.93 / 0.0	44.89	V / 1.00 / 0		-13
1.816 GHz	36.1 Pk	4.31 / 28.2 / 27.89 / 0.0	40.72	V / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.846 GHz	40.35 Pk	4.36 / 28.5 / 27.82 / 0.0	45.39	V / 1.00 / 0	See	-13
1.801 GHz	53.6 Pk	4.28 / 28.16 / 27.91 / 0.0	58.13	V / 1.00 / 0	Measurement	-13
1.633 GHz	44.35 Pk	3.95 / 27.82 / 28.05 / 0.0	48.07	V / 1.00 / 0	Summary	-13
1.42 GHz	42.8 Pk	3.7 / 26.1 / 27.95 / 0.0	44.65	V / 1.00 / 0	Page 8	-13
922.942 MHz	49.85 Pk	2.95 / 23.47 / 27.7 / 0.0	48.57	V / 1.00 / 0		-13
516.028 MHz	38.2 Pk	2.2 / 17.17 / 28.1 / 0.0	29.47	V / 1.00 / 0		-13
91.83 MHz	74.7 Pk	1.0 / 7.78 / 28.2 / 0.0	55.28	V / 1.00 / 0		-13
30.1 MHz	42.0 Pk	0.5 / 20.8 / 28.3 / 0.0	35.0	V / 2.50 / 0		-13
59.84 MHz	58.58 Pk	0.72 / 11.6 / 28.2 / 0.0	42.7	V / 2.50 / 0		-13
74.48 MHz	65.46 Pk	0.8 / 8.1 / 28.2 / 0.0	46.16	V / 2.50 / 0		-13
85.72 MHz	64.02 Pk	0.9 / 7.26 / 28.2 / 0.0	43.98	V / 2.50 / 0		-13
96.47 MHz	69.29 Pk	1.0 / 8.41 / 28.2 / 0.0	50.5	V / 2.50 / 0		-13
121.68 MHz	51.48 Pk	1.1 / 9.04 / 28.2 / 0.0	33.42	V / 2.50 / 0		-13
141.955 MHz	67.34 Pk	1.13 / 8.88 / 28.3 / 0.0	49.05	V / 2.50 / 0		-13
160.43 MHz	52.88 Pk	1.3 / 8.91 / 28.2 / 0.0	34.89	V / 2.50 / 0		-13
212.96 MHz	70.09 Pk	1.4 / 10.77 / 28.2 / 0.0	54.06	V / 2.50 / 0		-13
354.98 MHz	56.53 Pk	1.85 / 15.0 / 28.2 / 0.0	45.18	V / 2.50 / 0		-13
709.98 MHz	63.66 Pk	2.65 / 20.36 / 28.0 / 0.0	58.67	V / 2.50 / 0		-13
735.25 MHz	33.32 Pk	2.8 / 21.4 / 28.0 / 0.0	29.52	V / 2.50 / 0		-13
851.98 MHz	47.25 Pk	2.9 / 22.3 / 27.7 / 0.0	44.75	V / 2.50 / 0		-13
1.065 GHz	44.28 Pk	3.27 / 23.1 / 27.7 / 0.0	42.95	V / 2.50 / 0		-13
1.065 GHz	44.45 Pk	3.27 / 23.11 / 27.7 / 0.0	43.12	V / 2.50 / 0		-13
1.491 GHz	40.53 Pk	3.82 / 26.96 / 28.02 / 0.0	43.29	V / 2.50 / 0		-13
1.816 GHz	37.94 Pk	4.31 / 28.2 / 27.89 / 0.0	42.56	V / 2.50 / 0		-13
1.917 GHz	37.78 Pk	4.46 / 29.0 / 27.65 / 0.0	43.59	V / 2.50 / 0		-13
1.965 GHz	39.31 Pk	4.55 / 29.3 / 27.58 / 0.0	45.58	V / 2.50 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

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List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
55.93 MHz	52.08 Pk	0.78 / 12.4 / 28.2 / 0.0	37.06	V / 2.50 / 90	See	-13
72.025 MHz	73.17 Pk	0.8 / 8.7 / 28.15 / 0.0	54.52	V / 2.50 / 90	Measurement	-13
72.53 MHz	73.86 Pk	0.8 / 8.6 / 28.16 / 0.0	55.1	V / 2.50 / 90	Summary	-13
74.48 MHz	69.2 Pk	0.8 / 8.1 / 28.2 / 0.0	49.9	V / 2.50 / 90	Page 8	-13
85.72 MHz	69.05 Pk	0.9 / 7.26 / 28.2 / 0.0	49.01	V / 2.50 / 90		-13
89.73 MHz	71.38 Pk	0.96 / 7.57 / 28.2 / 0.0	51.72	V / 2.50 / 90		-13
96.47 MHz	72.51 Pk	1.0 / 8.41 / 28.2 / 0.0	53.72	V / 2.50 / 90		-13
103.13 MHz	65.98 Pk	1.0 / 9.13 / 28.2 / 0.0	47.91	V / 2.50 / 90		-13
121.68 MHz	53.63 Pk	1.1 / 9.04 / 28.2 / 0.0	35.57	V / 2.50 / 90		-13
141.955 MHz	70.74 Pk	1.13 / 8.88 / 28.3 / 0.0	52.45	V / 2.50 / 90		-13
148.998 MHz	49.29 Pk	1.2 / 9.9 / 28.3 / 0.0	32.09	V / 2.50 / 90		-13
212.96 MHz	74.83 Pk	1.4 / 10.77 / 28.2 / 0.0	58.8	V / 2.50 / 90		-13
218.946 MHz	51.02 Pk	1.4 / 10.92 / 28.2 / 0.0	35.14	V / 2.50 / 90		-13
638.97 MHz	54.99 Pk	2.5 / 19.81 / 28.0 / 0.0	49.3	V / 2.50 / 90		-13
1.207 GHz	43.23 Pk	3.34 / 24.04 / 27.71 / 0.0	42.9	V / 2.50 / 90		-13
1.349 GHz	42.72 Pk	3.6 / 25.76 / 27.87 / 0.0	44.2	V / 2.50 / 90		-13
1.846 GHz	41.04 Pk	4.36 / 28.5 / 27.82 / 0.0	46.08	V / 2.50 / 90		-13
72.025 MHz	74.05 Pk	0.8 / 8.7 / 28.15 / 0.0	55.4	V / 2.50 / 180		-13
74.426 MHz	72.85 Pk	0.8 / 8.1 / 28.2 / 0.0	53.55	V / 2.50 / 180		-13
284.01 MHz	68.4 Pk	1.63 / 12.8 / 28.27 / 0.0	54.55	V / 2.50 / 180		-13
426.0 MHz	64.8 Pk	2.0 / 16.9 / 28.09 / 0.0	55.61	V / 2.50 / 180		-13
1.491 GHz	47.75 Pk	3.82 / 26.96 / 28.02 / 0.0	50.51	V / 2.50 / 180		-13
72.82 MHz	75.1 Pk	0.8 / 8.5 / 28.16 / 0.0	56.24	V / 1.00 / 180		-13
164.9 MHz	61.7 Pk	1.3 / 8.71 / 28.2 / 0.0	43.51	V / 1.00 / 180		-13
235.91 MHz	55.15 Pk	1.46 / 11.3 / 28.26 / 0.0	39.65	V / 1.00 / 180		-13
354.98 MHz	64.85 Pk	1.85 / 15.0 / 28.2 / 0.0	53.5	V / 1.00 / 180		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

Page: 5 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
426.0 MHz	69.85 Pk	2.0 / 16.9 / 28.09 / 0.0	60.66	V / 1.00 / 180	See	-13
709.98 MHz	68.55 Pk	2.65 / 20.36 / 28.0 / 0.0	63.56	V / 1.00 / 180	Measurement	-13
1.065 GHz	47.3 Pk	3.27 / 23.1 / 27.7 / 0.0	45.97	V / 1.00 / 180	Summary	-13
1.065 GHz	46.75 Pk	3.27 / 23.11 / 27.7 / 0.0	45.42	V / 1.00 / 180	Page 8	-13
1.207 GHz	48.0 Pk	3.34 / 24.04 / 27.71 / 0.0	47.67	V / 1.00 / 180		-13
1.278 GHz	46.75 Pk	3.59 / 24.82 / 27.8 / 0.0	47.37	V / 1.00 / 180		-13
1.349 GHz	45.2 Pk	3.6 / 25.76 / 27.87 / 0.0	46.68	V / 1.00 / 180		-13
1.562 GHz	48.2 Pk	3.89 / 26.8 / 28.09 / 0.0	50.8	V / 1.00 / 180		-13
1.775 GHz	44.85 Pk	4.21 / 28.4 / 27.93 / 0.0	49.54	V / 1.00 / 180		-13
55.93 MHz	57.7 Pk	0.78 / 12.4 / 28.2 / 0.0	42.68	V / 1.00 / 270		-13
141.96 MHz	73.2 Pk	1.13 / 8.88 / 28.3 / 0.0	54.91	V / 1.00 / 270		-13
160.43 MHz	60.35 Pk	1.3 / 8.91 / 28.2 / 0.0	42.36	V / 1.00 / 270		-13
851.98 MHz	57.3 Pk	2.9 / 22.3 / 27.7 / 0.0	54.8	V / 1.00 / 270		-13
148.998 MHz	51.39 Pk	1.2 / 9.9 / 28.3 / 0.0	34.19	H / 1.00 / 270		-13
164.11 MHz	52.13 Pk	1.3 / 8.75 / 28.2 / 0.0	33.98	H / 1.00 / 270		-13
212.96 MHz	76.94 Pk	1.4 / 10.77 / 28.2 / 0.0	60.91	H / 1.00 / 270		-13
235.91 MHz	61.91 Pk	1.46 / 11.3 / 28.26 / 0.0	46.41	H / 1.00 / 270		-13
265.37 MHz	59.71 Pk	1.53 / 12.56 / 28.16 / 0.0	45.65	H / 1.00 / 270		-13
354.98 MHz	68.7 Pk	1.85 / 15.0 / 28.2 / 0.0	57.35	H / 1.00 / 270		-13
426.0 MHz	72.36 Pk	2.0 / 16.9 / 28.09 / 0.0	63.17	H / 1.00 / 270		-13
1.816 GHz	39.86 Pk	4.31 / 28.2 / 27.89 / 0.0	44.48	H / 1.00 / 270		-13
1.917 GHz	39.05 Pk	4.46 / 29.0 / 27.65 / 0.0	44.86	H / 1.00 / 270		-13
164.11 MHz	53.0 Pk	1.3 / 8.75 / 28.2 / 0.0	34.85	H / 1.00 / 180		-13
218.946 MHz	53.41 Pk	1.4 / 10.92 / 28.2 / 0.0	37.53	H / 1.00 / 180		-13
575.04 MHz	36.7 Pk	2.34 / 18.6 / 28.1 / 0.0	29.54	H / 1.00 / 180		-13

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Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

Page: 6 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.065 GHz	49.28 Pk	3.27 / 23.1 / 27.7 / 0.0	47.95	H / 1.00 / 180	See	-13
1.065 GHz	48.78 Pk	3.27 / 23.11 / 27.7 / 0.0	47.45	H / 1.00 / 180	Measurement	-13
1.136 GHz	44.7 Pk	3.23 / 23.9 / 27.7 / 0.0	44.13	H / 1.00 / 180	Summary	-13
1.207 GHz	53.93 Pk	3.34 / 24.04 / 27.71 / 0.0	53.6	H / 1.00 / 180	Page 8	-13
1.278 GHz	48.34 Pk	3.59 / 24.82 / 27.8 / 0.0	48.96	H / 1.00 / 180		-13
1.349 GHz	48.3 Pk	3.6 / 25.76 / 27.87 / 0.0	49.78	H / 1.00 / 180		-13
1.42 GHz	45.24 Pk	3.7 / 26.1 / 27.95 / 0.0	47.09	H / 1.00 / 180		-13
1.633 GHz	50.53 Pk	3.95 / 27.82 / 28.05 / 0.0	54.25	H / 1.00 / 180		-13
1.917 GHz	40.27 Pk	4.46 / 29.0 / 27.65 / 0.0	46.08	H / 1.00 / 180		-13
160.43 MHz	65.7 Pk	1.3 / 8.91 / 28.2 / 0.0	47.71	H / 1.00 / 90		-13
164.11 MHz	61.15 Pk	1.3 / 8.75 / 28.2 / 0.0	43.0	H / 1.00 / 90		-13
212.96 MHz	80.05 Pk	1.4 / 10.77 / 28.2 / 0.0	64.02	H / 1.00 / 90		-13
218.946 MHz	56.88 Pk	1.4 / 10.92 / 28.2 / 0.0	41.0	H / 1.00 / 90		-13
265.37 MHz	60.42 Pk	1.53 / 12.56 / 28.16 / 0.0	46.36	H / 1.00 / 90		-13
638.97 MHz	56.82 Pk	2.5 / 19.81 / 28.0 / 0.0	51.13	H / 1.00 / 90		-13
1.065 GHz	47.3 Pk	3.27 / 23.11 / 27.7 / 0.0	45.97	H / 1.00 / 90		-13
1.491 GHz	50.52 Pk	3.82 / 26.96 / 28.02 / 0.0	53.28	H / 1.00 / 90		-13
1.846 GHz	43.51 Pk	4.36 / 28.5 / 27.82 / 0.0	48.55	H / 1.00 / 90		-13
1.917 GHz	41.5 Pk	4.46 / 29.0 / 27.65 / 0.0	47.31	H / 1.00 / 90		-13
265.37 MHz	61.09 Pk	1.53 / 12.56 / 28.16 / 0.0	47.03	H / 1.00 / 0		-13
284.01 MHz	69.72 Pk	1.63 / 12.8 / 28.27 / 0.0	55.87	H / 1.00 / 0		-13
354.98 MHz	74.54 Pk	1.85 / 15.0 / 28.2 / 0.0	63.19	H / 1.00 / 0		-13
780.96 MHz	55.43 Pk	2.71 / 21.7 / 27.91 / 0.0	51.93	H / 1.00 / 0		-13
922.96 MHz	51.48 Pk	2.96 / 23.47 / 27.7 / 0.0	50.2	H / 1.00 / 0		-13
2.84 GHz	42.0 Pk	5.75 / 31.24 / 27.55 / 0.0	51.44	H / 1.20 / 30		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat

Page: 7 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
3.95 GHz	57.35 Pk	6.78 / 34.06 / 27.65 / 0.0	70.54	H / 1.20 / 150	See	-13
2.044 GHz	38.15 Pk	4.72 / 29.7 / 27.53 / 0.0	45.05	V / 1.21 / 150	Measurement	-13
3.924 GHz	38.15 Pk	6.75 / 33.99 / 27.63 / 0.0	51.25	V / 1.30 / 320	Summary	-13
3.9 GHz	37.0 Pk	6.72 / 33.92 / 27.61 / 0.0	50.03	V / 1.30 / 320	Page 8	-13
4.088 GHz	50.5 Pk	6.92 / 34.08 / 40.81 / 0.0	50.69	V / 1.10 / 256		-13
6.132 GHz	54.4 Pk	10.13 / 36.69 / 41.14 / 0.0	60.09	V / 1.10 / 310		-13
NO HIGHER LEVELS						
SCANNED FROM 30MHZ TO 18GHZ V/H 360 DEGREES 1-4 METERS						

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-456000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS BEF SYSTEM

Notes: BEF SYSTEM

Data File Name: 3065-02.dat Page: 8 of 8

Measurement summary for limit1: EN 55011 B Grp 1 10 m (Qp)

10 Highest Emissions : LIMIT is -13 dBm

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)
72.025 MHz	74.05 Pk	0.8 / 8.7 / 28.15 / 0.0	55.4	V / 2.50 / 180	-40.8
72.53 MHz	73.86 Pk	0.8 / 8.6 / 28.16 / 0.0	55.1	V / 2.50 / 90	-41.1
141.96 MHz	73.2 Pk	1.13 / 8.88 / 28.3 / 0.0	54.91	V / 1.00 / 270	-41.29
212.96 MHz	80.05 Pk	1.4 / 10.77 / 28.2 / 0.0	64.02	H / 1.00 / 90	-32.18
284.01 MHz	69.72 Pk	1.63 / 12.8 / 28.27 / 0.0	55.87	H / 1.00 / 0	-40.33
354.98 MHz	74.54 Pk	1.85 / 15.0 / 28.2 / 0.0	63.19	H / 1.00 / 0	-33.01
426.0 MHz	72.36 Pk	2.0 / 16.9 / 28.09 / 0.0	63.17	H / 1.00 / 270	-33.03
709.98 MHz	68.55 Pk	2.65 / 20.36 / 28.0 / 0.0	63.56	V / 1.00 / 180	-32.64
91.83 MHz	74.7 Pk	1.0 / 7.78 / 28.2 / 0.0	55.28	V / 1.00 / 0	-40.92
72.82 MHz	75.1 Pk	0.8 / 8.5 / 28.16 / 0.0	56.24	V / 1.00 / 180	-39.96

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 1 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
TX 1945MHZ						
30.04 MHz	46.31 Pk	0.5 / 20.8 / 28.3 / 0.0	39.31	V / 1.00 / 0	See	-13
30.63 MHz	40.45 Pk	0.51 / 20.47 / 28.3 / 0.0	33.13	V / 1.00 / 0	Measurement	-13
39.72 MHz	63.03 Pk	0.6 / 16.96 / 28.3 / 0.0	52.29	V / 1.00 / 0	Summary	-13
41.4 MHz	50.39 Pk	0.6 / 16.4 / 28.3 / 0.0	39.09	V / 1.00 / 0	Page 8	-13
48.37 MHz	55.89 Pk	0.7 / 14.2 / 28.3 / 0.0	42.49	V / 1.00 / 0		-13
49.78 MHz	57.0 Pk	0.7 / 13.9 / 28.28 / 0.0	43.32	V / 1.00 / 0		-13
55.93 MHz	54.34 Pk	0.78 / 12.4 / 28.2 / 0.0	39.32	V / 1.00 / 0		-13
59.32 MHz	54.95 Pk	0.73 / 11.7 / 28.2 / 0.0	39.18	V / 1.00 / 0		-13
59.84 MHz	53.98 Pk	0.72 / 11.6 / 28.2 / 0.0	38.1	V / 1.00 / 0		-13
72.025 MHz	68.81 Pk	0.8 / 8.7 / 28.15 / 0.0	50.16	V / 1.00 / 0		-13
72.53 MHz	63.85 Pk	0.8 / 8.6 / 28.16 / 0.0	45.09	V / 1.00 / 0		-13
72.82 MHz	55.29 Pk	0.8 / 8.5 / 28.16 / 0.0	36.43	V / 1.00 / 0		-13
74.426 MHz	71.74 Pk	0.8 / 8.1 / 28.2 / 0.0	52.44	V / 1.00 / 0		-13
85.72 MHz	64.82 Pk	0.9 / 7.26 / 28.2 / 0.0	44.78	V / 1.00 / 0		-13
89.73 MHz	71.29 Pk	0.96 / 7.57 / 28.2 / 0.0	51.63	V / 1.00 / 0		-13
91.83 MHz	73.29 Pk	1.0 / 7.78 / 28.2 / 0.0	53.87	V / 1.00 / 0		-13
96.47 MHz	71.32 Pk	1.0 / 8.41 / 28.2 / 0.0	52.53	V / 1.00 / 0		-13
98.08 MHz	73.65 Pk	1.0 / 8.69 / 28.2 / 0.0	55.14	V / 1.00 / 0		-13
103.13 MHz	64.94 Pk	1.0 / 9.13 / 28.2 / 0.0	46.87	V / 1.00 / 0		-13
121.68 MHz	48.79 Pk	1.1 / 9.04 / 28.2 / 0.0	30.73	V / 1.00 / 0		-13
141.96 MHz	55.41 Pk	1.13 / 8.88 / 28.3 / 0.0	37.12	V / 1.00 / 0		-13
148.998 MHz	45.57 Pk	1.2 / 9.9 / 28.3 / 0.0	28.37	V / 1.00 / 0		-13
160.43 MHz	52.21 Pk	1.3 / 8.91 / 28.2 / 0.0	34.22	V / 1.00 / 0		-13
164.11 MHz	45.36 Pk	1.3 / 8.75 / 28.2 / 0.0	27.21	V / 1.00 / 0		-13
164.9 MHz	44.67 Pk	1.3 / 8.71 / 28.2 / 0.0	26.48	V / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 2 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
212.96 MHz	75.93 Pk	1.4 / 10.77 / 28.2 / 0.0	59.9	V / 1.00 / 0	See	-13
218.946 MHz	49.82 Pk	1.4 / 10.92 / 28.2 / 0.0	33.94	V / 1.00 / 0	Measurement	-13
235.91 MHz	53.37 Pk	1.46 / 11.3 / 28.26 / 0.0	37.87	V / 1.00 / 0	Summary	-13
265.37 MHz	53.43 Pk	1.53 / 12.56 / 28.16 / 0.0	39.37	V / 1.00 / 0	Page 8	-13
284.01 MHz	60.76 Pk	1.63 / 12.8 / 28.27 / 0.0	46.91	V / 1.00 / 0		-13
354.98 MHz	62.09 Pk	1.85 / 15.0 / 28.2 / 0.0	50.74	V / 1.00 / 0		-13
394.91 MHz	42.21 Pk	1.9 / 15.33 / 28.1 / 0.0	31.35	V / 1.00 / 0		-13
426.0 MHz	63.1 Pk	2.0 / 16.9 / 28.09 / 0.0	53.91	V / 1.00 / 0		-13
496.99 MHz	57.36 Pk	2.2 / 17.45 / 28.1 / 0.0	48.91	V / 1.00 / 0		-13
516.028 MHz	31.56 Pk	2.2 / 17.17 / 28.1 / 0.0	22.83	V / 1.00 / 0		-13
567.97 MHz	57.39 Pk	2.33 / 18.32 / 28.1 / 0.0	49.93	V / 1.00 / 0		-13
575.04 MHz	35.36 Pk	2.34 / 18.6 / 28.1 / 0.0	28.2	V / 1.00 / 0		-13
638.97 MHz	54.72 Pk	2.5 / 19.81 / 28.0 / 0.0	49.03	V / 1.00 / 0		-13
709.98 MHz	67.9 Pk	2.65 / 20.36 / 28.0 / 0.0	62.91	V / 1.00 / 0		-13
735.25 MHz	32.57 Pk	2.8 / 21.4 / 28.0 / 0.0	28.77	V / 1.00 / 0		-13
780.96 MHz	48.75 Pk	2.71 / 21.7 / 27.91 / 0.0	45.25	V / 1.00 / 0		-13
851.98 MHz	45.98 Pk	2.9 / 22.3 / 27.7 / 0.0	43.48	V / 1.00 / 0		-13
922.96 MHz	46.24 Pk	2.96 / 23.47 / 27.7 / 0.0	44.96	V / 1.00 / 0		-13
993.99 MHz	37.07 Pk	3.17 / 22.7 / 27.7 / 0.0	35.24	V / 1.00 / 0		-13
1.065 GHz	39.5 Pk	3.27 / 23.1 / 27.7 / 0.0	38.17	V / 1.00 / 0		-13
1.065 GHz	38.26 Pk	3.27 / 23.11 / 27.7 / 0.0	36.93	V / 1.00 / 0		-13
1.136 GHz	35.87 Pk	3.23 / 23.9 / 27.7 / 0.0	35.3	V / 1.00 / 0		-13
1.207 GHz	39.6 Pk	3.34 / 24.04 / 27.71 / 0.0	39.27	V / 1.00 / 0		-13
1.136 GHz	35.4 Pk	3.23 / 23.9 / 27.7 / 0.0	34.83	V / 1.00 / 0		-13
1.207 GHz	39.6 Pk	3.34 / 24.04 / 27.71 / 0.0	39.27	V / 1.00 / 0		-13
1.278 GHz	44.5 Pk	3.59 / 24.82 / 27.8 / 0.0	45.12	V / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 3 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.349 GHz	42.4 Pk	3.6 / 25.76 / 27.87 / 0.0	43.88	V / 1.00 / 0	See	-13
1.42 GHz	42.45 Pk	3.7 / 26.1 / 27.95 / 0.0	44.3	V / 1.00 / 0	Measurement	-13
1.491 GHz	43.55 Pk	3.82 / 26.96 / 28.02 / 0.0	46.31	V / 1.00 / 0	Summary	-13
1.562 GHz	43.4 Pk	3.89 / 26.8 / 28.09 / 0.0	46.0	V / 1.00 / 0	Page 8	-13
1.562 GHz	42.1 Pk	3.89 / 26.8 / 28.09 / 0.0	44.7	V / 1.00 / 0		-13
1.633 GHz	42.9 Pk	3.95 / 27.82 / 28.05 / 0.0	46.62	V / 1.00 / 0		-13
1.775 GHz	40.7 Pk	4.21 / 28.4 / 27.93 / 0.0	45.39	V / 1.00 / 0		-13
1.796 GHz	53.85 Pk	4.26 / 28.26 / 27.91 / 0.0	58.47	V / 1.00 / 0		-13
1.801 GHz	35.7 Pk	4.28 / 28.16 / 27.91 / 0.0	40.23	V / 1.00 / 0		-13
1.846 GHz	42.95 Pk	4.36 / 28.5 / 27.82 / 0.0	47.99	V / 1.00 / 0		-13
1.917 GHz	39.7 Pk	4.46 / 29.0 / 27.65 / 0.0	45.51	V / 1.00 / 0		-13
425.906 MHz	68.5 Pk	2.0 / 16.9 / 28.09 / 0.0	59.31	V / 1.00 / 0		-13
284.0 MHz	56.05 Pk	1.63 / 12.8 / 28.27 / 0.0	42.2	V / 1.00 / 0		-13
212.96 MHz	75.45 Pk	1.4 / 10.77 / 28.2 / 0.0	59.42	V / 1.00 / 0		-13
30.63 MHz	41.84 Pk	0.51 / 20.47 / 28.3 / 0.0	34.52	V / 2.50 / 0		-13
41.4 MHz	50.64 Pk	0.6 / 16.4 / 28.3 / 0.0	39.34	V / 2.50 / 0		-13
48.37 MHz	56.97 Pk	0.7 / 14.2 / 28.3 / 0.0	43.57	V / 2.50 / 0		-13
59.32 MHz	56.0 Pk	0.73 / 11.7 / 28.2 / 0.0	40.23	V / 2.50 / 0		-13
59.84 MHz	57.95 Pk	0.72 / 11.6 / 28.2 / 0.0	42.07	V / 2.50 / 0		-13
85.72 MHz	66.03 Pk	0.9 / 7.26 / 28.2 / 0.0	45.99	V / 2.50 / 0		-13
141.96 MHz	67.5 Pk	1.13 / 8.88 / 28.3 / 0.0	49.21	V / 2.50 / 0		-13
283.944 MHz	65.95 Pk	1.63 / 12.8 / 28.27 / 0.0	52.1	V / 2.50 / 0		-13
496.99 MHz	48.8 Pk	2.2 / 17.45 / 28.1 / 0.0	40.35	V / 2.50 / 0		-13
993.93 MHz	43.55 Pk	3.17 / 22.7 / 27.7 / 0.0	41.72	V / 2.50 / 0		-13
1.065 GHz	44.7 Pk	3.27 / 23.11 / 27.7 / 0.0	43.37	V / 2.50 / 0		-13
1.136 GHz	38.55 Pk	3.23 / 23.9 / 27.7 / 0.0	37.98	V / 2.50 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 4 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
72.09 MHz	72.55 Pk	0.8 / 8.7 / 28.15 / 0.0	53.9	V / 2.50 / 90	See	-13
72.53 MHz	68.15 Pk	0.8 / 8.6 / 28.16 / 0.0	49.39	V / 2.50 / 90	Measurement	-13
72.82 MHz	69.05 Pk	0.8 / 8.5 / 28.16 / 0.0	50.19	V / 2.50 / 90	Summary	-13
89.73 MHz	67.15 Pk	0.96 / 7.57 / 28.2 / 0.0	47.49	V / 2.50 / 90	Page 8	-13
141.96 MHz	70.55 Pk	1.13 / 8.88 / 28.3 / 0.0	52.26	V / 2.50 / 90		-13
283.94 MHz	68.1 Pk	1.63 / 12.8 / 28.27 / 0.0	54.25	V / 2.50 / 90		-13
780.96 MHz	50.7 Pk	2.71 / 21.7 / 27.91 / 0.0	47.2	V / 2.50 / 90		-13
1.136 GHz	41.15 Pk	3.23 / 23.9 / 27.7 / 0.0	40.58	V / 1.00 / 90		-13
993.93 MHz	49.55 Pk	3.17 / 22.7 / 27.7 / 0.0	47.72	V / 1.00 / 90		-13
496.99 MHz	63.3 Pk	2.2 / 17.45 / 28.1 / 0.0	54.85	V / 1.00 / 90		-13
426.0 MHz	74.05 Pk	2.0 / 16.9 / 28.09 / 0.0	64.86	V / 1.00 / 90		-13
283.98 MHz	71.05 Pk	1.63 / 12.8 / 28.27 / 0.0	57.2	V / 1.00 / 90		-13
212.98 MHz	78.25 Pk	1.4 / 10.77 / 28.2 / 0.0	62.22	V / 1.00 / 90		-13
164.92 MHz	62.6 Pk	1.3 / 8.71 / 28.2 / 0.0	44.41	V / 1.00 / 90		-13
164.11 MHz	62.4 Pk	1.3 / 8.75 / 28.2 / 0.0	44.25	V / 1.00 / 90		-13
160.43 MHz	66.35 Pk	1.3 / 8.91 / 28.2 / 0.0	48.36	V / 1.00 / 90		-13
149.0 MHz	53.95 Pk	1.2 / 9.9 / 28.3 / 0.0	36.75	V / 1.00 / 90		-13
141.96 MHz	74.6 Pk	1.13 / 8.88 / 28.3 / 0.0	56.31	V / 1.00 / 90		-13
96.47 MHz	74.3 Pk	1.0 / 8.41 / 28.2 / 0.0	55.51	V / 1.00 / 90		-13
74.43 MHz	75.35 Pk	0.8 / 8.1 / 28.2 / 0.0	56.05	V / 1.00 / 90		-13
72.82 MHz	74.7 Pk	0.8 / 8.5 / 28.16 / 0.0	55.84	V / 1.00 / 90		-13
48.37 MHz	65.6 Pk	0.7 / 14.2 / 28.3 / 0.0	52.2	V / 1.00 / 90		-13
72.53 MHz	75.3 Pk	0.8 / 8.6 / 28.16 / 0.0	56.54	V / 1.00 / 180		-13
638.97 MHz	56.9 Pk	2.5 / 19.81 / 28.0 / 0.0	51.21	V / 1.00 / 180		-13
1.207 GHz	48.2 Pk	3.34 / 24.04 / 27.71 / 0.0	47.87	V / 1.00 / 180		-13
1.562 GHz	45.65 Pk	3.89 / 26.8 / 28.09 / 0.0	48.25	V / 1.00 / 180		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 5 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.633 GHz	45.0 Pk	3.95 / 27.82 / 28.05 / 0.0	48.72	V / 1.00 / 180	See	-13
1.775 GHz	45.8 Pk	4.21 / 28.4 / 27.93 / 0.0	50.49	V / 1.00 / 180	Measurement	-13
1.491 GHz	47.5 Pk	3.82 / 26.96 / 28.02 / 0.0	50.26	V / 2.50 / 180	Summary	-13
1.065 GHz	41.05 Pk	3.27 / 23.11 / 27.7 / 0.0	39.72	V / 2.50 / 180	Page 8	-13
851.98 MHz	54.6 Pk	2.9 / 22.3 / 27.7 / 0.0	52.1	V / 1.00 / 270		-13
NO HIGHER LEVELS AT TX 1957MHZ AND 1970 MHZ						
212.98 MHz	79.2 Pk	1.4 / 10.77 / 28.2 / 0.0	63.17	H / 1.00 / 270		-13
218.946 MHz	51.26 Pk	1.4 / 10.92 / 28.2 / 0.0	35.38	H / 1.00 / 270		-13
235.91 MHz	60.74 Pk	1.46 / 11.3 / 28.26 / 0.0	45.24	H / 1.00 / 270		-13
265.37 MHz	59.99 Pk	1.53 / 12.56 / 28.16 / 0.0	45.93	H / 1.00 / 270		-13
354.98 MHz	71.05 Pk	1.85 / 15.0 / 28.2 / 0.0	59.7	H / 1.00 / 270		-13
516.028 MHz	38.34 Pk	2.2 / 17.17 / 28.1 / 0.0	29.61	H / 1.00 / 270		-13
567.97 MHz	57.42 Pk	2.33 / 18.32 / 28.1 / 0.0	49.96	H / 1.00 / 270		-13
780.96 MHz	53.71 Pk	2.71 / 21.7 / 27.91 / 0.0	50.21	H / 1.00 / 270		-13
1.065 GHz	43.72 Pk	3.27 / 23.11 / 27.7 / 0.0	42.39	H / 1.00 / 270		-13
1.278 GHz	44.83 Pk	3.59 / 24.82 / 27.8 / 0.0	45.45	H / 1.00 / 270		-13
1.801 GHz	37.1 Pk	4.28 / 28.16 / 27.91 / 0.0	41.63	H / 1.00 / 270		-13
1.816 GHz	36.7 Pk	4.31 / 28.2 / 27.89 / 0.0	41.32	H / 1.00 / 270		-13
1.965 GHz	35.17 Pk	4.55 / 29.3 / 27.58 / 0.0	41.44	H / 1.00 / 270		-13
218.946 MHz	52.72 Pk	1.4 / 10.92 / 28.2 / 0.0	36.84	H / 1.00 / 180		-13
567.97 MHz	58.86 Pk	2.33 / 18.32 / 28.1 / 0.0	51.4	H / 1.00 / 180		-13
575.04 MHz	37.89 Pk	2.34 / 18.6 / 28.1 / 0.0	30.73	H / 1.00 / 180		-13
922.96 MHz	48.59 Pk	2.96 / 23.47 / 27.7 / 0.0	47.31	H / 1.00 / 180		-13
993.93 MHz	49.79 Pk	3.17 / 22.7 / 27.7 / 0.0	47.96	H / 1.00 / 180		-13
1.065 GHz	43.68 Pk	3.27 / 23.11 / 27.7 / 0.0	42.35	H / 1.00 / 180		-13
1.136 GHz	43.81 Pk	3.23 / 23.9 / 27.7 / 0.0	43.24	H / 1.00 / 180		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 6 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.207 GHz	54.13 Pk	3.34 / 24.04 / 27.71 / 0.0	53.8	H / 1.00 / 180	See	-13
1.349 GHz	45.0 Pk	3.6 / 25.76 / 27.87 / 0.0	46.48	H / 1.00 / 180	Measurement	-13
1.42 GHz	42.98 Pk	3.7 / 26.1 / 27.95 / 0.0	44.83	H / 1.00 / 180	Summary	-13
1.633 GHz	47.39 Pk	3.95 / 27.82 / 28.05 / 0.0	51.11	H / 1.00 / 180	Page 8	-13
1.801 GHz	38.25 Pk	4.28 / 28.16 / 27.91 / 0.0	42.78	H / 1.00 / 180		-13
1.816 GHz	37.93 Pk	4.31 / 28.2 / 27.89 / 0.0	42.55	H / 1.00 / 180		-13
1.917 GHz	40.43 Pk	4.46 / 29.0 / 27.65 / 0.0	46.24	H / 1.00 / 180		-13
1.965 GHz	37.32 Pk	4.55 / 29.3 / 27.58 / 0.0	43.59	H / 1.00 / 180		-13
160.43 MHz	69.52 Pk	1.3 / 8.91 / 28.2 / 0.0	51.53	H / 1.00 / 180		-13
212.98 MHz	81.4 Pk	1.4 / 10.77 / 28.2 / 0.0	65.37	H / 1.00 / 180		-13
218.946 MHz	56.48 Pk	1.4 / 10.92 / 28.2 / 0.0	40.6	H / 1.00 / 180		-13
265.37 MHz	61.71 Pk	1.53 / 12.56 / 28.16 / 0.0	47.65	H / 1.00 / 180		-13
283.98 MHz	76.2 Pk	1.63 / 12.8 / 28.27 / 0.0	62.35	H / 1.00 / 180		-13
638.97 MHz	57.24 Pk	2.5 / 19.81 / 28.0 / 0.0	51.55	H / 1.00 / 180		-13
735.25 MHz	34.36 Pk	2.8 / 21.4 / 28.0 / 0.0	30.56	H / 1.00 / 180		-13
1.065 GHz	48.02 Pk	3.27 / 23.11 / 27.7 / 0.0	46.69	H / 1.00 / 180		-13
1.065 GHz	48.36 Pk	3.27 / 23.11 / 27.7 / 0.0	47.03	H / 1.00 / 180		-13
1.42 GHz	43.42 Pk	3.7 / 26.1 / 27.95 / 0.0	45.27	H / 1.00 / 180		-13
1.816 GHz	37.99 Pk	4.31 / 28.2 / 27.89 / 0.0	42.61	H / 1.00 / 180		-13
283.98 MHz	77.65 Pk	1.63 / 12.8 / 28.27 / 0.0	63.8	H / 1.00 / 0		-13
354.98 MHz	73.84 Pk	1.85 / 15.0 / 28.2 / 0.0	62.49	H / 1.00 / 0		-13
780.96 MHz	54.32 Pk	2.71 / 21.7 / 27.91 / 0.0	50.82	H / 1.00 / 0		-13
922.96 MHz	51.33 Pk	2.96 / 23.47 / 27.7 / 0.0	50.05	H / 1.00 / 0		-13
1.065 GHz	45.02 Pk	3.27 / 23.11 / 27.7 / 0.0	43.69	H / 1.00 / 0		-13
1.278 GHz	45.46 Pk	3.59 / 24.82 / 27.8 / 0.0	46.08	H / 1.00 / 0		-13
1.816 GHz	38.25 Pk	4.31 / 28.2 / 27.89 / 0.0	42.87	H / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat

Page: 7 of 8

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
121.68 MHz	48.97 Pk	1.1 / 9.04 / 28.2 / 0.0	30.91	H / 2.50 / 0	See	-13
735.25 MHz	35.73 Pk	2.8 / 21.4 / 28.0 / 0.0	31.93	H / 2.50 / 0	Measurement	-13
1.065 GHz	41.5 Pk	3.27 / 23.11 / 27.7 / 0.0	40.17	H / 2.50 / 0	Summary	-13
1.42 GHz	43.6 Pk	3.7 / 26.1 / 27.95 / 0.0	45.45	H / 2.50 / 0	Page 8	-13
1.816 GHz	38.9 Pk	4.31 / 28.2 / 27.89 / 0.0	43.52	H / 2.50 / 0		-13
1.965 GHz	38.84 Pk	4.55 / 29.3 / 27.58 / 0.0	45.11	H / 2.50 / 0		-13
SCAN COMPLETE 30MHZ TO 2GHZ 360 DEGREES VERTICAL HORIZONTAL 1-4 METERS						
TX 1945						
2.039 GHz	45.05 Pk	4.71 / 29.69 / 27.53 / 0.0	51.92	V / 1.10 / 350		-13
NO HIGHER LEVELS WERE DETECTED WITH TX 1957MHZ AND 1970MHZ						
SCAN COMPLETE 2-4 GHZ V/H 1-4METERS 360 DEGREES						
TX 1945						
4.078 GHz	49.55 Pk	6.91 / 34.09 / 40.8 / 0.0	49.75	H / 1.14 / 10		-13
6.117 GHz	53.45 Pk	10.08 / 36.71 / 41.17 / 0.0	59.07	H / 2.20 / 10		-13
6.117 GHz	61.51 Pk	10.08 / 36.71 / 41.17 / 0.0	67.13	V / 2.20 / 340		-13
NO HIGHER LEVELS TX 1957MHZ AND 1970MHZ						
SCAN COMPLETE 4-8GHZ 360 DEGREES V/H 1-4 METERS						
SCANNED 8-18GHZ NO EMISSIONS WERE DETECTED SCAN COMPLETE						

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-446000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS DBE SYSTEM

Notes: DBE SYSTEM

Data File Name: 3065-03.dat Page: 8 of 8

Measurement summary for limit1: EN 55011 B Grp 1 10 m (Qp)

10 Highest Emissions : LIMIT is -13 dBm

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)
72.53 MHz	75.3 Pk	0.8 / 8.6 / 28.16 / 0.0	56.54	V / 1.00 / 180	-39.66
72.82 MHz	74.7 Pk	0.8 / 8.5 / 28.16 / 0.0	55.84	V / 1.00 / 90	-40.36
74.43 MHz	75.35 Pk	0.8 / 8.1 / 28.2 / 0.0	56.05	V / 1.00 / 90	-40.15
96.47 MHz	74.3 Pk	1.0 / 8.41 / 28.2 / 0.0	55.51	V / 1.00 / 90	-40.69
141.96 MHz	74.6 Pk	1.13 / 8.88 / 28.3 / 0.0	56.31	V / 1.00 / 90	-39.89
212.98 MHz	81.4 Pk	1.4 / 10.77 / 28.2 / 0.0	65.37	H / 1.00 / 180	-30.83
283.98 MHz	77.65 Pk	1.63 / 12.8 / 28.27 / 0.0	63.8	H / 1.00 / 0	-32.4
354.98 MHz	73.84 Pk	1.85 / 15.0 / 28.2 / 0.0	62.49	H / 1.00 / 0	-33.71
426.0 MHz	74.05 Pk	2.0 / 16.9 / 28.09 / 0.0	64.86	V / 1.00 / 90	-31.34
709.98 MHz	67.9 Pk	2.65 / 20.36 / 28.0 / 0.0	62.91	V / 1.00 / 0	-33.29

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 1 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
TRANSMITTING AT 1965MHZ LOW CHANNEL						
30.16 MHz	53.15 Pk	0.5 / 20.8 / 28.3 / 0.0	46.15	V / 1.00 / 0	See	-13
30.63 MHz	53.25 Pk	0.51 / 20.47 / 28.3 / 0.0	45.93	V / 1.00 / 0	Measurement	-13
39.72 MHz	66.4 Pk	0.6 / 16.96 / 28.3 / 0.0	55.66	V / 1.00 / 0	Summary	-13
41.4 MHz	62.4 Pk	0.6 / 16.4 / 28.3 / 0.0	51.1	V / 1.00 / 0	Page 7	-13
48.37 MHz	71.5 Pk	0.7 / 14.2 / 28.3 / 0.0	58.1	V / 1.00 / 0		-13
49.78 MHz	64.05 Pk	0.7 / 13.9 / 28.28 / 0.0	50.37	V / 1.00 / 0		-13
55.93 MHz	63.2 Pk	0.78 / 12.4 / 28.2 / 0.0	48.18	V / 1.00 / 0		-13
59.84 MHz	62.65 Pk	0.72 / 11.6 / 28.2 / 0.0	46.77	V / 1.00 / 0		-13
59.32 MHz	62.65 Pk	0.73 / 11.7 / 28.2 / 0.0	46.88	V / 1.00 / 0		-13
74.48 MHz	72.45 Pk	0.8 / 8.1 / 28.2 / 0.0	53.15	V / 1.00 / 0		-13
72.04 MHz	71.05 Pk	0.8 / 8.7 / 28.15 / 0.0	52.4	V / 1.00 / 0		-13
85.72 MHz	71.95 Pk	0.9 / 7.26 / 28.2 / 0.0	51.91	V / 1.00 / 0		-13
96.47 MHz	76.95 Pk	1.0 / 8.41 / 28.2 / 0.0	58.16	V / 1.00 / 0		-13
89.73 MHz	76.4 Pk	0.96 / 7.57 / 28.2 / 0.0	56.74	V / 1.00 / 0		-13
98.08 MHz	75.3 Pk	1.0 / 8.69 / 28.2 / 0.0	56.79	V / 1.00 / 0		-13
103.13 MHz	64.85 Pk	1.0 / 9.13 / 28.2 / 0.0	46.78	V / 1.00 / 0		-13
121.68 MHz	58.2 Pk	1.1 / 9.04 / 28.2 / 0.0	40.14	V / 1.00 / 0		-13
148.998 MHz	58.2 Pk	1.2 / 9.9 / 28.3 / 0.0	41.0	V / 1.00 / 0		-13
164.11 MHz	59.75 Pk	1.3 / 8.75 / 28.2 / 0.0	41.6	V / 1.00 / 0		-13
218.94 MHz	55.7 Pk	1.4 / 10.92 / 28.2 / 0.0	39.82	V / 1.00 / 0		-13
235.91 MHz	56.65 Pk	1.46 / 11.3 / 28.26 / 0.0	41.15	V / 1.00 / 0		-13
283.956 MHz	67.1 Pk	1.63 / 12.8 / 28.27 / 0.0	53.25	V / 1.00 / 0		-13
354.96 MHz	59.4 Pk	1.85 / 15.0 / 28.2 / 0.0	48.05	V / 1.00 / 0		-13
394.91 MHz	54.75 Pk	1.9 / 15.33 / 28.1 / 0.0	43.89	V / 1.00 / 0		-13
425.962 MHz	71.75 Pk	2.0 / 16.9 / 28.09 / 0.0	62.56	V / 1.00 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 2 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
496.96 MHz	58.9 Pk	2.2 / 17.45 / 28.1 / 0.0	50.45	V / 1.00 / 0	See	-13
567.957 MHz	62.5 Pk	2.33 / 18.32 / 28.1 / 0.0	55.04	V / 1.00 / 0	Measurement	-13
575.03 MHz	38.5 Pk	2.34 / 18.6 / 28.1 / 0.0	31.34	V / 1.00 / 0	Summary	-13
638.96 MHz	60.55 Pk	2.5 / 19.81 / 28.0 / 0.0	54.86	V / 1.00 / 0	Page 7	-13
709.97 MHz	68.55 Pk	2.65 / 20.36 / 28.0 / 0.0	63.55	V / 1.00 / 0		-13
735.24 MHz	37.65 Pk	2.8 / 21.4 / 28.0 / 0.0	33.85	V / 1.00 / 0		-13
780.95 MHz	48.6 Pk	2.71 / 21.7 / 27.91 / 0.0	45.1	V / 1.00 / 0		-13
851.98 MHz	49.35 Pk	2.9 / 22.3 / 27.7 / 0.0	46.85	V / 1.00 / 0		-13
922.95 MHz	50.15 Pk	2.95 / 23.47 / 27.7 / 0.0	48.87	V / 1.00 / 0		-13
993.99 MHz	51.0 Pk	3.17 / 22.7 / 27.7 / 0.0	49.17	V / 1.00 / 0		-13
1.065 GHz	46.45 Pk	3.27 / 23.1 / 27.7 / 0.0	45.12	V / 1.00 / 0		-13
1.136 GHz	39.3 Pk	3.23 / 23.9 / 27.7 / 0.0	38.73	V / 1.00 / 0		-13
1.207 GHz	45.6 Pk	3.34 / 24.04 / 27.71 / 0.0	45.27	V / 1.00 / 0		-13
1.278 GHz	46.9 Pk	3.59 / 24.82 / 27.8 / 0.0	47.52	V / 1.00 / 0		-13
1.491 GHz	43.3 Pk	3.82 / 26.96 / 28.02 / 0.0	46.06	V / 1.00 / 0		-13
1.775 GHz	42.65 Pk	4.21 / 28.4 / 27.93 / 0.0	47.34	V / 1.00 / 0		-13
1.816 GHz	49.75 Pk	4.31 / 28.2 / 27.89 / 0.0	54.37	V / 1.00 / 0		-13
1.846 GHz	45.0 Pk	4.36 / 28.5 / 27.82 / 0.0	50.04	V / 1.00 / 0		-13
1.917 GHz	40.45 Pk	4.46 / 29.0 / 27.65 / 0.0	46.26	V / 1.00 / 0		-13
283.956 MHz	67.62 Pk	1.63 / 12.8 / 28.27 / 0.0	53.77	V / 2.50 / 0		-13
496.96 MHz	59.2 Pk	2.2 / 17.45 / 28.1 / 0.0	50.75	V / 2.50 / 0		-13
780.95 MHz	48.88 Pk	2.71 / 21.7 / 27.91 / 0.0	45.38	V / 2.50 / 0		-13
1.491 GHz	45.83 Pk	3.82 / 26.96 / 28.02 / 0.0	48.59	V / 2.50 / 0		-13
72.04 MHz	71.95 Pk	0.8 / 8.7 / 28.15 / 0.0	53.3	V / 2.50 / 90		-13
283.956 MHz	68.44 Pk	1.63 / 12.8 / 28.27 / 0.0	54.59	V / 2.50 / 90		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 3 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
780.95 MHz	54.33 Pk	2.71 / 21.7 / 27.91 / 0.0	50.83	V / 2.50 / 90	See	-13
55.93 MHz	63.94 Pk	0.78 / 12.4 / 28.2 / 0.0	48.92	V / 1.00 / 90	Measurement	-13
164.11 MHz	63.85 Pk	1.3 / 8.75 / 28.2 / 0.0	45.7	V / 1.00 / 90	Summary	-13
283.956 MHz	69.36 Pk	1.63 / 12.8 / 28.27 / 0.0	55.51	V / 1.00 / 90	Page 7	-13
425.962 MHz	75.35 Pk	2.0 / 16.9 / 28.09 / 0.0	66.16	V / 1.00 / 90		-13
496.96 MHz	63.56 Pk	2.2 / 17.45 / 28.1 / 0.0	55.11	V / 1.00 / 90		-13
72.04 MHz	74.79 Pk	0.8 / 8.7 / 28.15 / 0.0	56.14	V / 1.00 / 180		-13
354.96 MHz	62.82 Pk	1.85 / 15.0 / 28.2 / 0.0	51.47	V / 1.00 / 180		-13
1.207 GHz	51.65 Pk	3.34 / 24.04 / 27.71 / 0.0	51.32	V / 1.00 / 180		-13
1.917 GHz	42.75 Pk	4.46 / 29.0 / 27.65 / 0.0	48.56	V / 1.00 / 180		-13
1.491 GHz	46.08 Pk	3.82 / 26.96 / 28.02 / 0.0	48.84	V / 2.50 / 180		-13
283.956 MHz	69.6 Pk	1.63 / 12.8 / 28.27 / 0.0	55.75	V / 2.50 / 270		-13
851.961 MHz	49.45 Pk	2.9 / 22.3 / 27.7 / 0.0	46.95	V / 2.50 / 270		-13
354.965 MHz	65.2 Pk	1.85 / 15.0 / 28.2 / 0.0	53.85	V / 1.00 / 270		-13
851.966 MHz	56.7 Pk	2.9 / 22.3 / 27.7 / 0.0	54.2	V / 1.00 / 270		-13
425.956 MHz	78.1 Pk	2.0 / 16.9 / 28.09 / 0.0	68.91	V / 1.69 / 330		-13
425.956 MHz	78.41 Pk	2.0 / 16.9 / 28.09 / 0.0	69.22	V / 1.69 / 330		-13

TRANSMITTING AT 1977MHZ MID CHANNEL

283.956 MHz	70.66 Pk	1.63 / 12.8 / 28.27 / 0.0	56.81	V / 1.00 / 0		-13
709.97 MHz	70.82 Pk	2.65 / 20.36 / 28.0 / 0.0	65.82	V / 1.00 / 0		-13
1.278 GHz	47.63 Pk	3.59 / 24.82 / 27.8 / 0.0	48.25	V / 1.00 / 0		-13
1.775 GHz	42.8 Pk	4.21 / 28.4 / 27.93 / 0.0	47.49	V / 1.00 / 0		-13
1.816 GHz	54.35 Pk	4.31 / 28.2 / 27.89 / 0.0	58.97	V / 1.00 / 0		-13
1.846 GHz	45.41 Pk	4.36 / 28.5 / 27.82 / 0.0	50.45	V / 1.00 / 0		-13
1.065 GHz	46.93 Pk	3.27 / 23.1 / 27.7 / 0.0	45.6	V / 2.50 / 0		-13

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RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 4 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.136 GHz	39.45 Pk	3.23 / 23.9 / 27.7 / 0.0	38.88	V / 2.50 / 0	See	-13
121.68 MHz	59.11 Pk	1.1 / 9.04 / 28.2 / 0.0	41.05	V / 1.00 / 180	Measurement	-13
354.965 MHz	66.45 Pk	1.85 / 15.0 / 28.2 / 0.0	55.1	V / 1.00 / 180	Summary	-13
575.03 MHz	38.74 Pk	2.34 / 18.6 / 28.1 / 0.0	31.58	V / 1.00 / 180	Page 7	-13
638.96 MHz	63.13 Pk	2.5 / 19.81 / 28.0 / 0.0	57.44	V / 1.00 / 180		-13
709.97 MHz	72.34 Pk	2.65 / 20.36 / 28.0 / 0.0	67.34	V / 1.00 / 180		-13
922.95 MHz	51.31 Pk	2.95 / 23.47 / 27.7 / 0.0	50.03	V / 1.00 / 180		-13
1.065 GHz	49.08 Pk	3.27 / 23.11 / 27.7 / 0.0	47.75	V / 1.00 / 180		-13
1.136 GHz	43.17 Pk	3.23 / 23.9 / 27.7 / 0.0	42.6	V / 1.00 / 180		-13
1.491 GHz	49.02 Pk	3.82 / 26.96 / 28.02 / 0.0	51.78	V / 1.00 / 180		-13
1.065 GHz	49.67 Pk	3.27 / 23.11 / 27.7 / 0.0	48.34	V / 1.00 / 270		-13
TRANSMITTING AT 1990MHZ HIGH CHANNEL						
1.846 GHz	45.7 Pk	4.36 / 28.5 / 27.82 / 0.0	50.74	V / 1.00 / 0		-13
72.025 MHz	76.95 Pk	0.8 / 8.7 / 28.15 / 0.0	58.3	V / 1.00 / 0		-13
72.53 MHz	76.8 Pk	0.8 / 8.6 / 28.16 / 0.0	58.04	V / 1.00 / 0		-13
160.43 MHz	69.65 Pk	1.3 / 8.91 / 28.2 / 0.0	51.66	V / 1.00 / 0		-13
496.97 MHz	62.45 Pk	2.2 / 17.45 / 28.1 / 0.0	54.0	V / 1.00 / 0		-13
74.49 MHz	72.3 Pk	0.8 / 8.1 / 28.2 / 0.0	53.0	V / 1.00 / 0		-13
354.967 MHz	66.4 Pk	1.85 / 15.0 / 28.2 / 0.0	55.05	V / 1.00 / 180		-13
1.278 GHz	50.95 Pk	3.59 / 24.82 / 27.8 / 0.0	51.57	V / 1.00 / 180		-13
1.775 GHz	44.9 Pk	4.21 / 28.4 / 27.93 / 0.0	49.59	V / 1.00 / 180		-13
212.96 MHz	79.75 Pk	1.4 / 10.77 / 28.2 / 0.0	63.72	H / 1.00 / 270		-13
141.955 MHz	68.95 Pk	1.13 / 8.88 / 28.3 / 0.0	50.66	H / 1.00 / 270		-13
265.365 MHz	56.95 Pk	1.53 / 12.56 / 28.16 / 0.0	42.88	H / 1.00 / 270		-13
283.97 MHz	71.85 Pk	1.63 / 12.8 / 28.27 / 0.0	58.0	H / 1.00 / 270		-13
355.01 MHz	69.55 Pk	1.85 / 15.0 / 28.2 / 0.0	58.2	H / 1.00 / 270		-13

Tested by: KTHR

Printed

Signature

Reviewed by: TKS

Printed

Signature

RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 5 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
1.349 GHz	39.05 Pk	3.6 / 25.76 / 27.88 / 0.0	40.53	H / 1.00 / 270	See	-13
1.562 GHz	40.85 Pk	3.89 / 26.8 / 28.09 / 0.0	43.45	H / 1.00 / 270	Measurement	-13
993.98 MHz	51.45 Pk	3.17 / 22.7 / 27.7 / 0.0	49.62	H / 2.50 / 180	Summary	-13
1.065 GHz	51.4 Pk	3.27 / 23.1 / 27.7 / 0.0	50.07	H / 2.50 / 180	Page 7	-13
1.349 GHz	41.15 Pk	3.6 / 25.76 / 27.87 / 0.0	42.63	H / 2.50 / 180		-13
1.562 GHz	43.75 Pk	3.89 / 26.8 / 28.09 / 0.0	46.35	H / 2.50 / 90		-13
283.95 MHz	78.2 Pk	1.63 / 12.8 / 28.27 / 0.0	64.35	H / 1.00 / 0		-13
354.98 MHz	74.3 Pk	1.85 / 15.0 / 28.2 / 0.0	62.95	H / 1.00 / 0		-13
TRANSMITTING AT 1977MHZ MID CHANNEL						
265.365 MHz	59.3 Pk	1.53 / 12.56 / 28.16 / 0.0	45.23	H / 1.00 / 0		-13
212.96 MHz	82.3 Pk	1.4 / 10.77 / 28.2 / 0.0	66.27	H / 1.00 / 90		-13
1.065 GHz	51.6 Pk	3.27 / 23.1 / 27.7 / 0.0	50.27	H / 1.00 / 180		-13
496.98 MHz	65.0 Pk	2.2 / 17.45 / 28.1 / 0.0	56.55	H / 1.00 / 270		-13
TRANSMITTING AT 1965MHZ LOW CHANNEL						
1.136 GHz	44.3 Pk	3.23 / 23.9 / 27.7 / 0.0	43.73	H / 1.00 / 180		-13
SCAN PERFORMED FROM 30MHZ-2GHZ VERTICAL AND HORIZONTAL 1-4 METERS 360 DEGREES						
TX 1965MHZ						
3.93 GHz	52.1 Pk	6.75 / 34.0 / 27.64 / 0.0	65.22	V / 1.20 / 340		-13
2.059 GHz	48.5 Pk	4.76 / 29.73 / 27.51 / 0.0	55.47	V / 1.10 / 255		-13
2.84 GHz	46.0 Pk	5.75 / 31.24 / 27.55 / 0.0	55.44	V / 1.50 / 23		-13
3.93 GHz	59.3 Pk	6.75 / 34.0 / 27.64 / 0.0	72.42	H / 1.50 / 133		-13
NO HIGHER LEVELS FOR TX 1977MHZ OR 1990MHZ WERE DETECTED						
SCAN PERFORMED FROM 2-4GHZ VERTICAL AND HORIZONTAL 1-4 METERS 360 DEGREES						
TX 1965MHZ						
4.118 GHz	55.47 Pk	6.96 / 34.03 / 40.92 / 0.0	55.54	H / 1.10 / 334		-13
6.117 GHz	57.25 Pk	10.08 / 36.71 / 41.17 / 0.0	62.87	H / 1.10 / 334		-13

Tested by: KTHR

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Signature

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Signature

RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW
EUT Model #: DGVL-466000 Date: 7/1/03
EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C
Test Method: PART 24 Air Pressure: 99.0 kPa
Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat

Page: 6 of 7

List of measurements for run #: 1

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)	LIMIT (-13 dBm)
NO HIGHER LEVELS FOR TX 1977MHZ OR 1990MHZ WERE DETECTED						
SCAN PERFORMED FROM 4-8GHZ VERTICAL AND HORIZONTAL 1-4 METERS 360 DEGREES						
no emission were detected 8-18Ghz V/H 360 DEGREES 1-4 METERS						

Tested by: KTHR

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by: TKS

Printed

Signature

RADIATED EMISSIONS



Test Report #: NC303065 Run 1 Test Area: OW

EUT Model #: DGVL-466000 Date: 7/1/03

EUT Serial #: _____ EUT Power: 40VDC Temperature: 22.0 °C

Test Method: PART 24 Air Pressure: 99.0 kPa

Customer: ADC TELECOMMUNICATIONS Rel. Humidity: 46.0 %

EUT Description: PCS EFC SYSTEM

Notes: EFC SYSTEM

Data File Name: 3065-01.dat Page: 7 of 7

Measurement summary for limit1: EN 55011 B Grp 1 10 m (Qp)

10 Highest Emissions : LIMIT is -13dBm

FREQ	LEVEL (dBuV)	CABLE / ANT / PREAMP / ATTEN (dB)	FINAL (dBuV / m)	POL / HGT / AZ (m)(DEG)	Erp (dBm)
48.37 MHz	71.5 Pk	0.7 / 14.2 / 28.3 / 0.0	58.1	V / 1.00 / 0	-38.1
72.025 MHz	76.95 Pk	0.8 / 8.7 / 28.15 / 0.0	58.3	V / 1.00 / 0	-37.9
96.47 MHz	76.95 Pk	1.0 / 8.41 / 28.2 / 0.0	58.16	V / 1.00 / 0	-38.04
283.95 MHz	78.2 Pk	1.63 / 12.8 / 28.27 / 0.0	64.35	H / 1.00 / 0	-31.85
354.98 MHz	74.3 Pk	1.85 / 15.0 / 28.2 / 0.0	62.95	H / 1.00 / 0	-33.25
425.956 MHz	78.41 Pk	2.0 / 16.9 / 28.09 / 0.0	69.22	V / 1.69 / 330	-26.98
638.96 MHz	63.13 Pk	2.5 / 19.81 / 28.0 / 0.0	57.44	V / 1.00 / 180	-38.76
709.97 MHz	72.34 Pk	2.65 / 20.36 / 28.0 / 0.0	67.34	V / 1.00 / 180	-28.86
72.53 MHz	76.8 Pk	0.8 / 8.6 / 28.16 / 0.0	58.04	V / 1.00 / 0	-38.16
212.96 MHz	82.3 Pk	1.4 / 10.77 / 28.2 / 0.0	66.27	H / 1.00 / 90	-29.93

Tested by: KTHR

Printed

Signature

Reviewed by: TKS

Printed

Signature

**Inter-Modulation Test for ADC Inc.
Digivance 1900 MHz 20 Watt System
Model Numbers DGVL-436100SYS, DGVL-446100SYS,
DGVL-456100SYS and DGVL-466100SYS.**

The intermodulation product test was performed for each bandwidth setting of the EUT. Two tests were performed with each modulation type. Test 1 was with two signals input into the EUT at lower end channels. Test 2 was with two signals, one at a lower end channel and one at a higher end channel. The modulation types tested were CDMA, TDMA, and FM (1 kHz @ 8 kHz deviation). An investigation was made from 30 MHz to the 10th harmonic of the highest fundamental frequency (~20 GHz).

Results:

Pass (see plots)

Intermodulation

BAND A,D

Close

FM

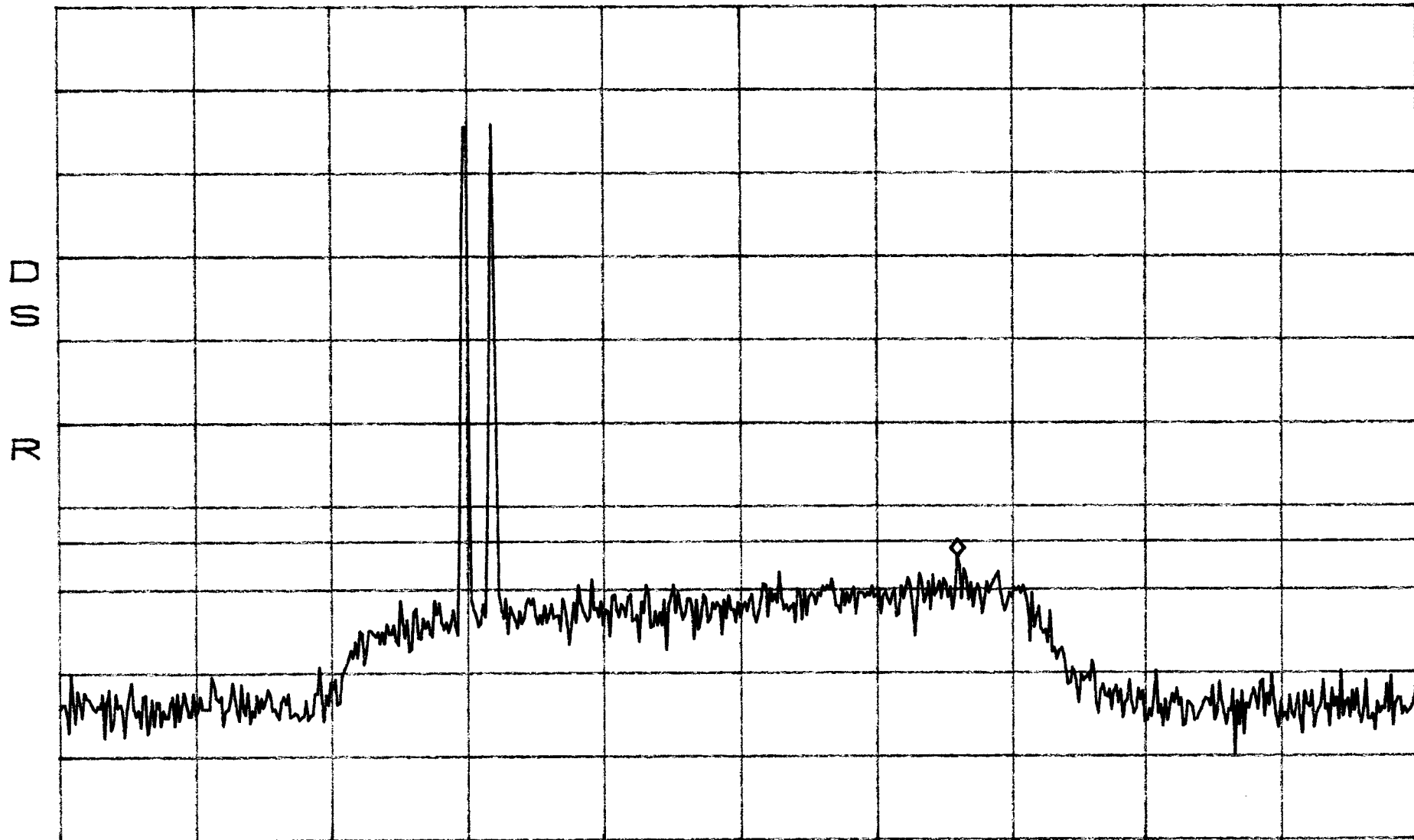
*ATTEN 30dB

MKR -14.70dBm

RL 51.3dBm

10dB/

1.94800GHz



CENTER 1.94000GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

SWP 140ms

Intermodulation

BAND A,D

Close

FM

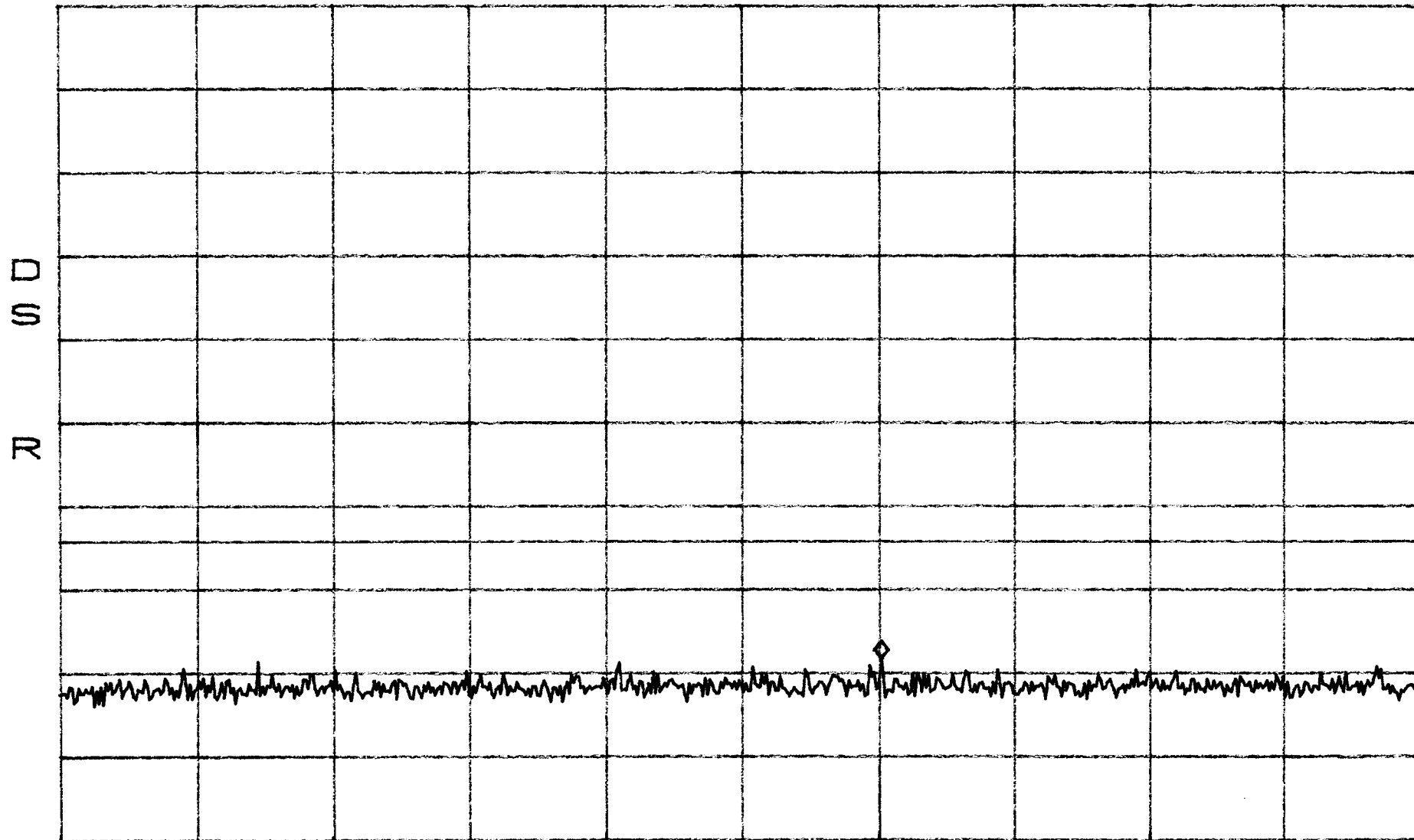
*ATTEN 30dB

MKR -26.87dBm

RL 51.3dBm

10dB/

613.6MHz



START 30.0MHz

STOP 1.0000GHz

*RBW 30kHz

VBW 30kHz

SWP 2.7sec

Intermodulation

BAND A,D

Close

FM

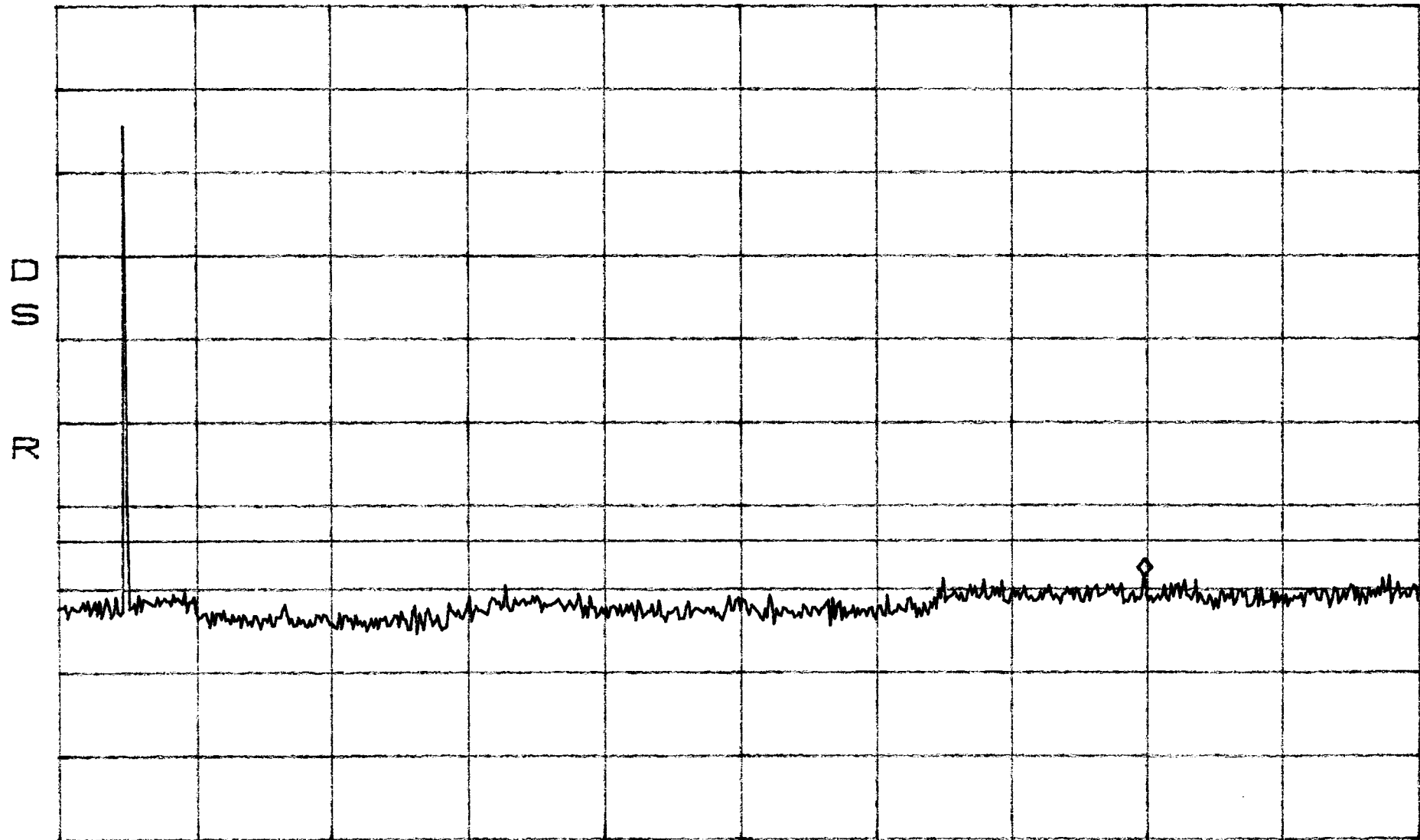
*ATTEN 30dB

MKR -17.03dBm

RL 51.3dBm

10dB/

16.17GHz



START 1.00GHz

STOP 20.00GHz

*RBW 300kHz

VBW 300kHz

SWP 530ms

Intermodulation
Apert
FM

BAND A,D

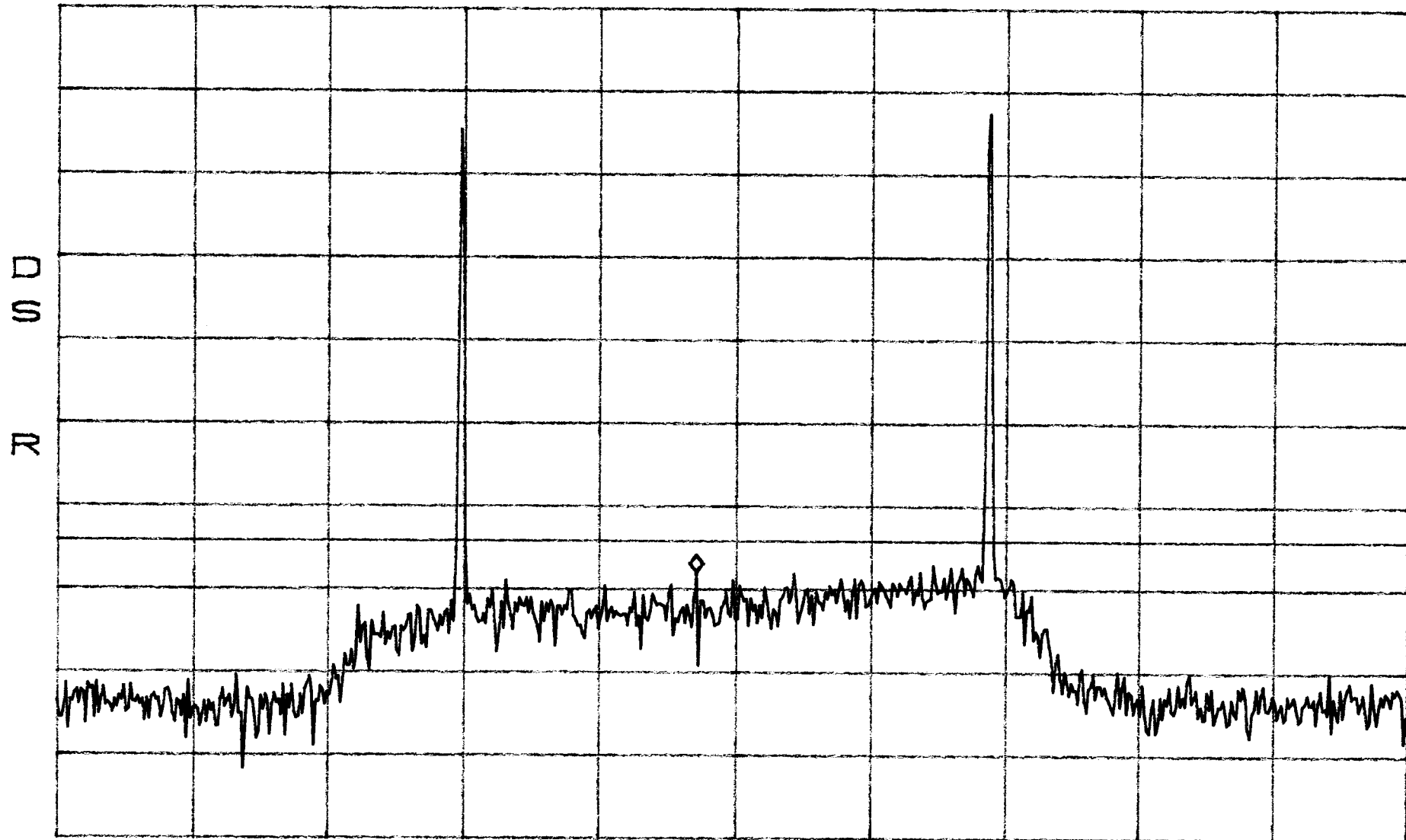
*ATTEN 30dB

RL 51.3dBm

10dB/

MKR -16.53dBm

1.93858GHz



CENTER 1.94000GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

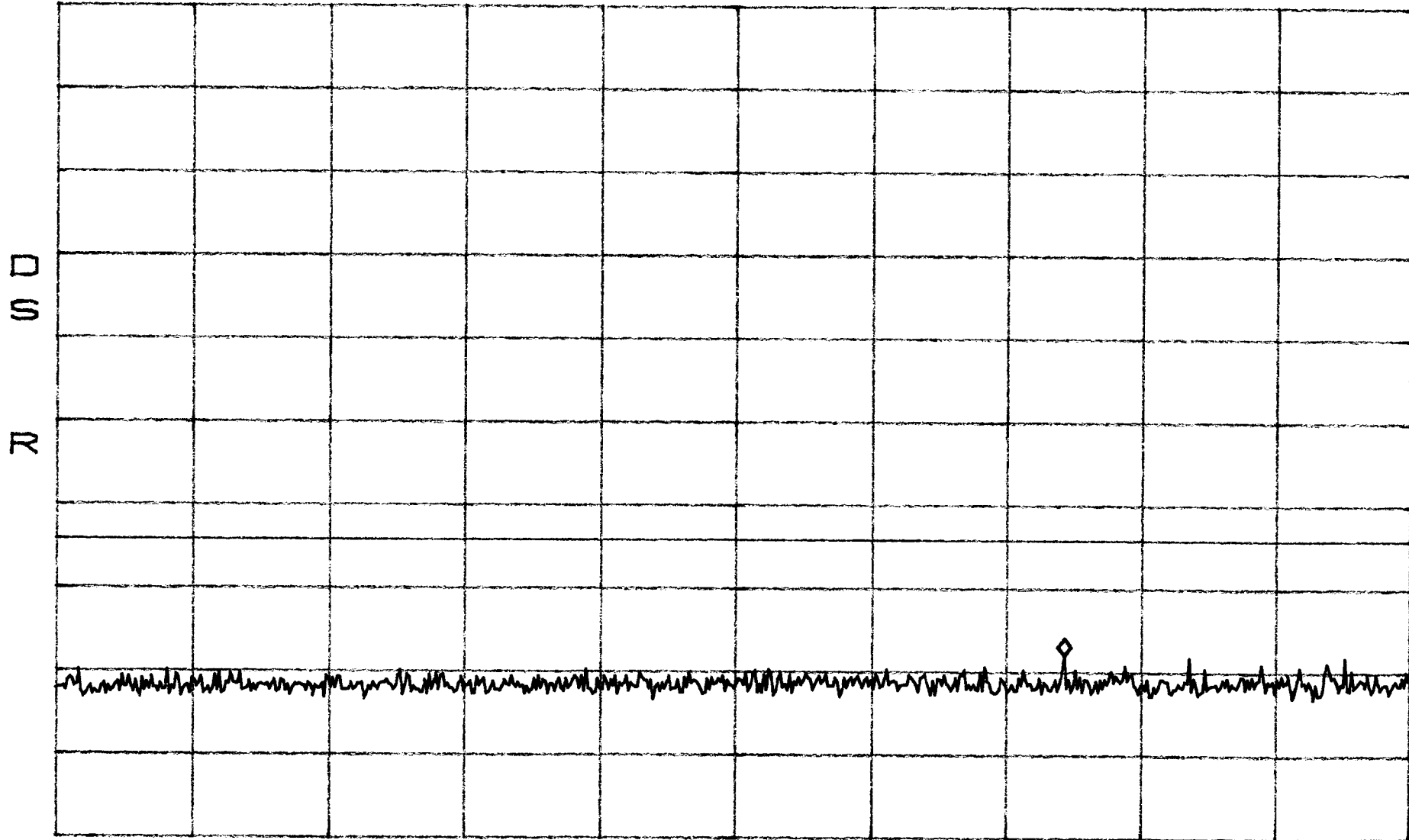
SWP 140ms

Intermodulation BAND A,D
Apert
FM

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -26.53dBm
751.0MHz



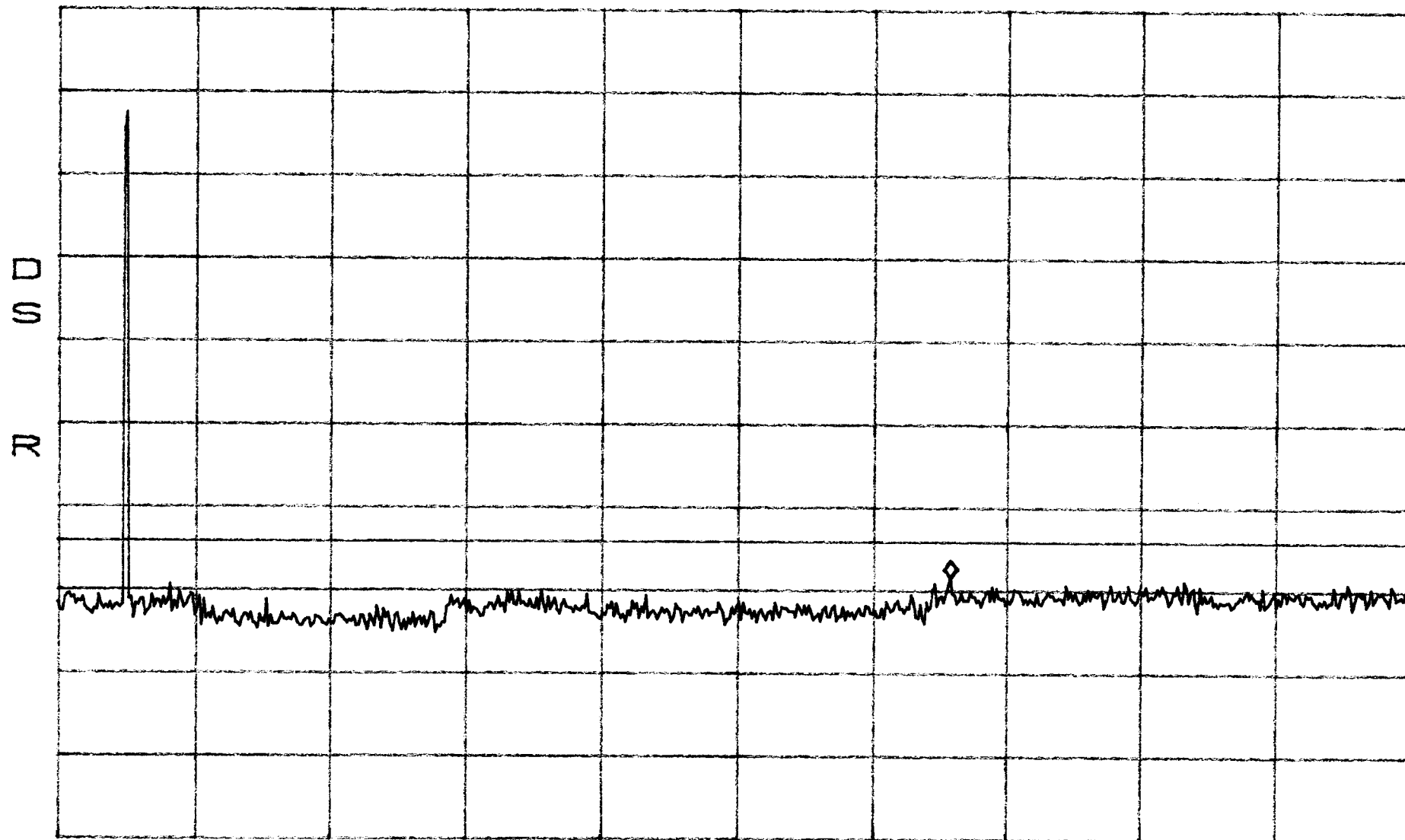
START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND A,D
Apert
FM

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -17.03dBm
13.51GHz



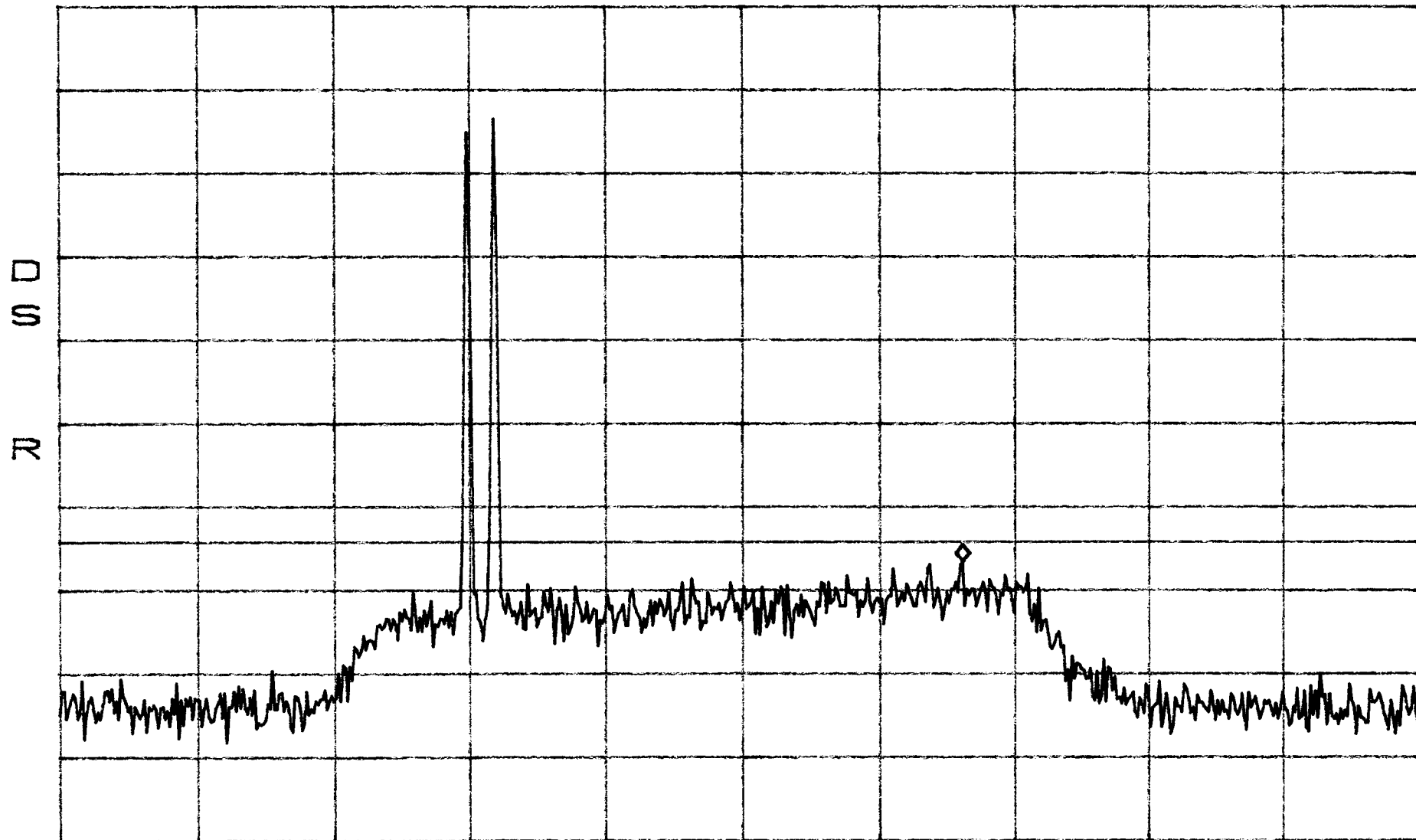
START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation BAND A,D
Close
TDMA

*ATTN 30dB
RL 51.3dBm

MKR -15.20dBm
1.94808GHz

10dB/



CENTER 1.94000GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

SWP 140ms

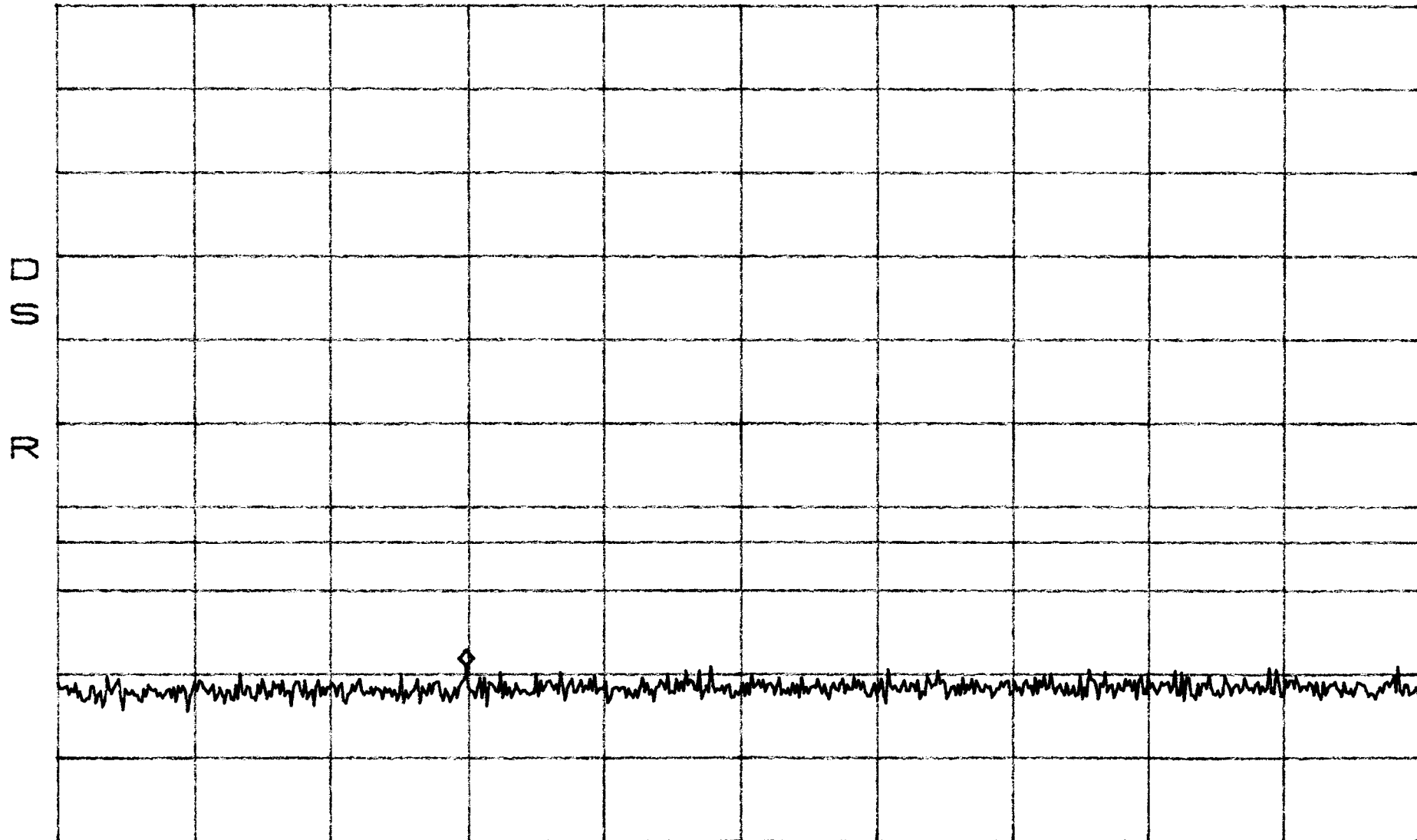
Intermodulation
Close
TDMA

BAND A,D

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -27.70dBm
319.4MHz



START 30.0MHz

STOP 1.0000GHz

*RBW 30kHz

VBW 30kHz

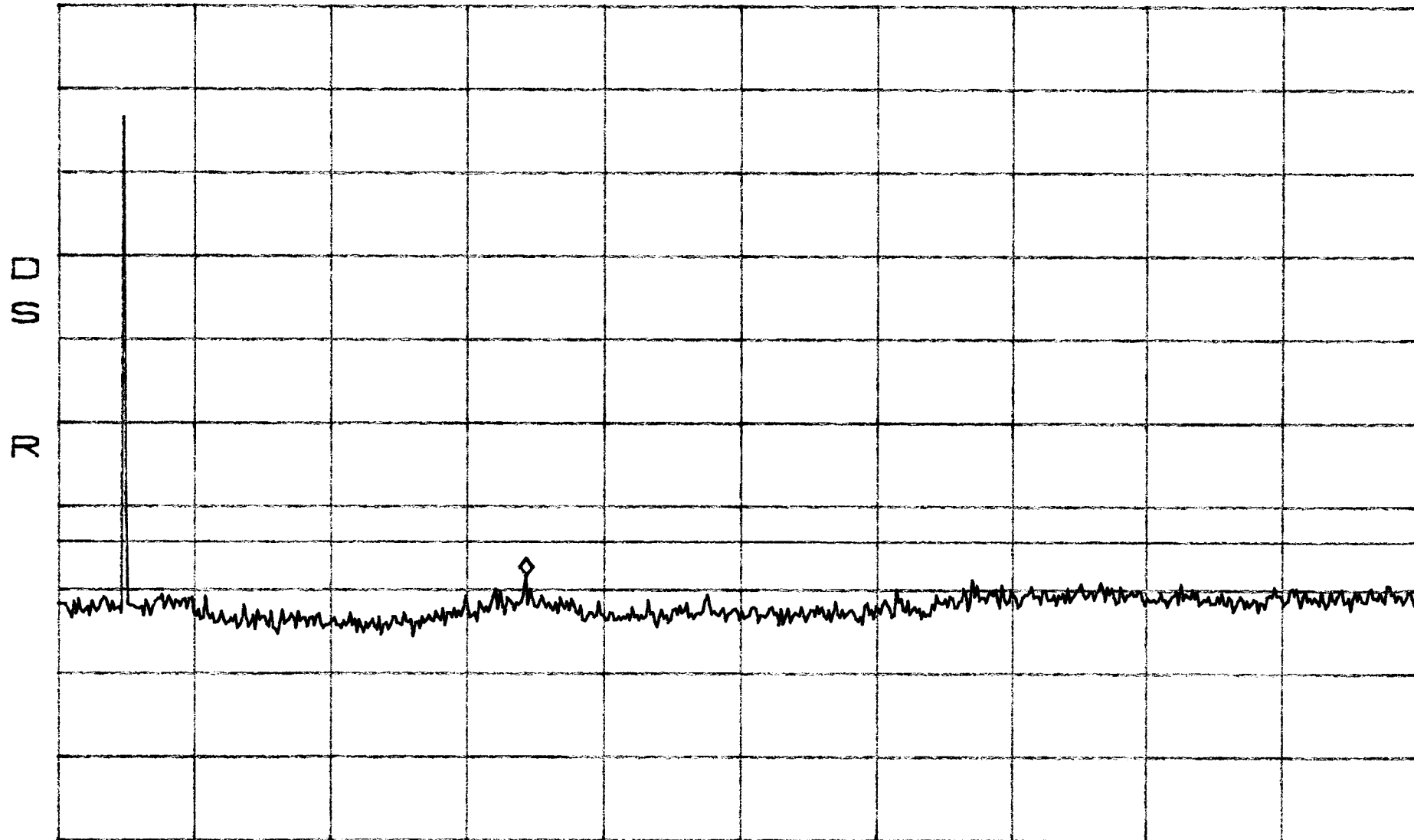
SWP 2.7sec

Intermodulation BAND A,D
Close
TDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -16.87dBm
7.52GHz

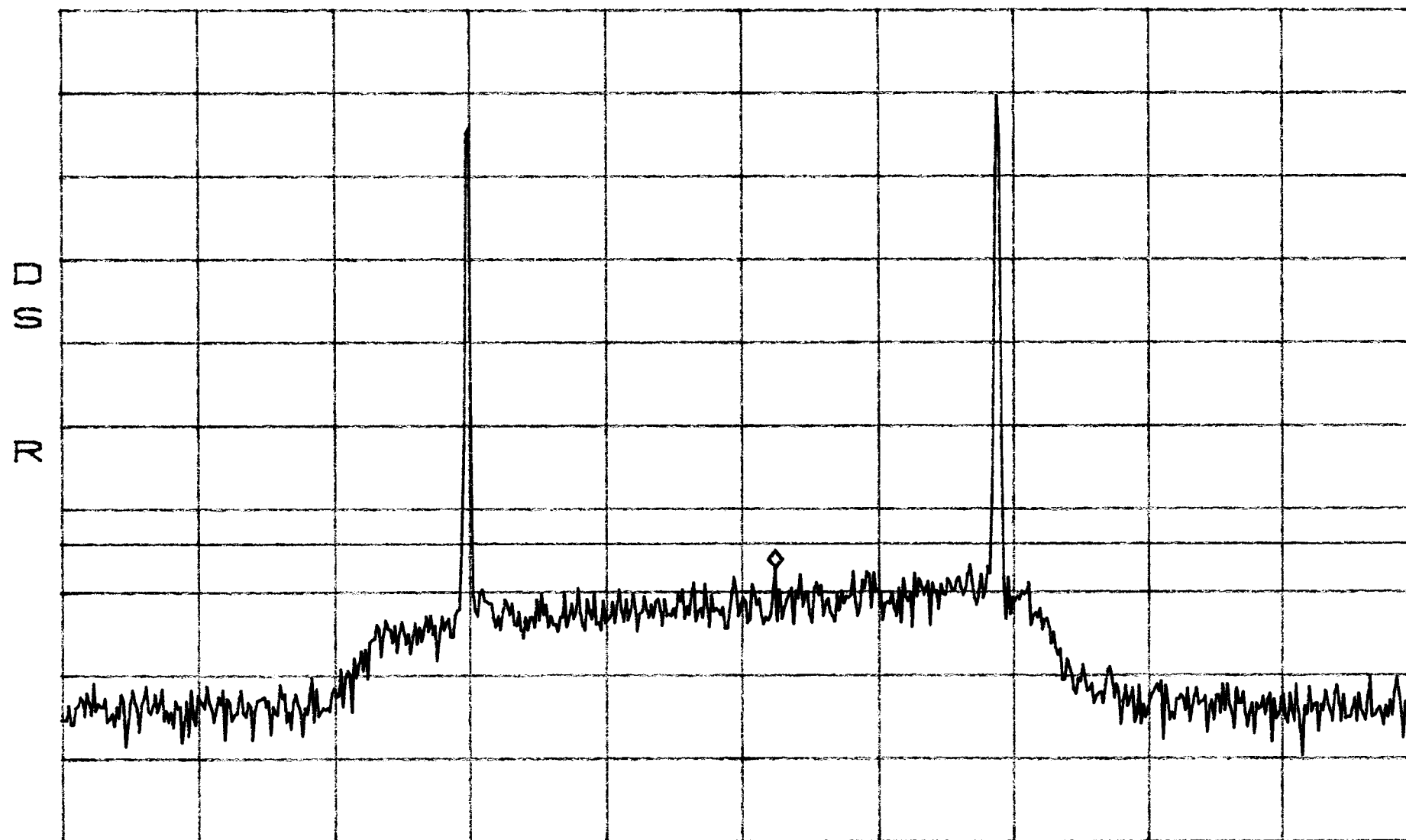


START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation BAND A,D
Apart
TDMA

*ATTEN 30dB
RL 51.3dBm

MKR -15.70dBm
1.94125GHz



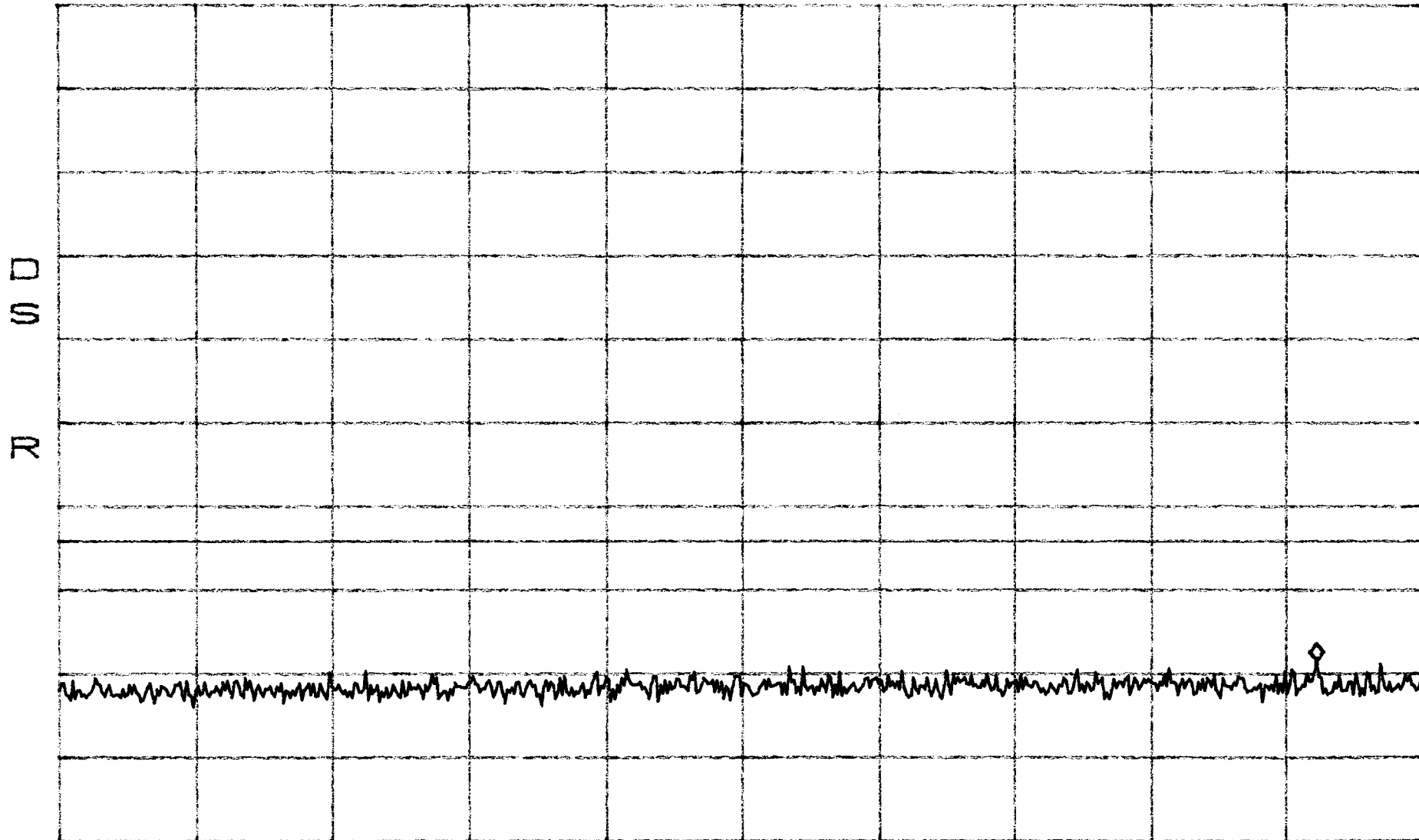
CENTER 1.94000GHz
*RBW 30kHz VBW 30kHz

SPAN 50.00MHz
SWP 140ms

Intermodulation BAND A,D
Apart
TDMA

*ATTEN 30dB
RL 51.3dBm

MKR -27.03dBm
925.6MHz

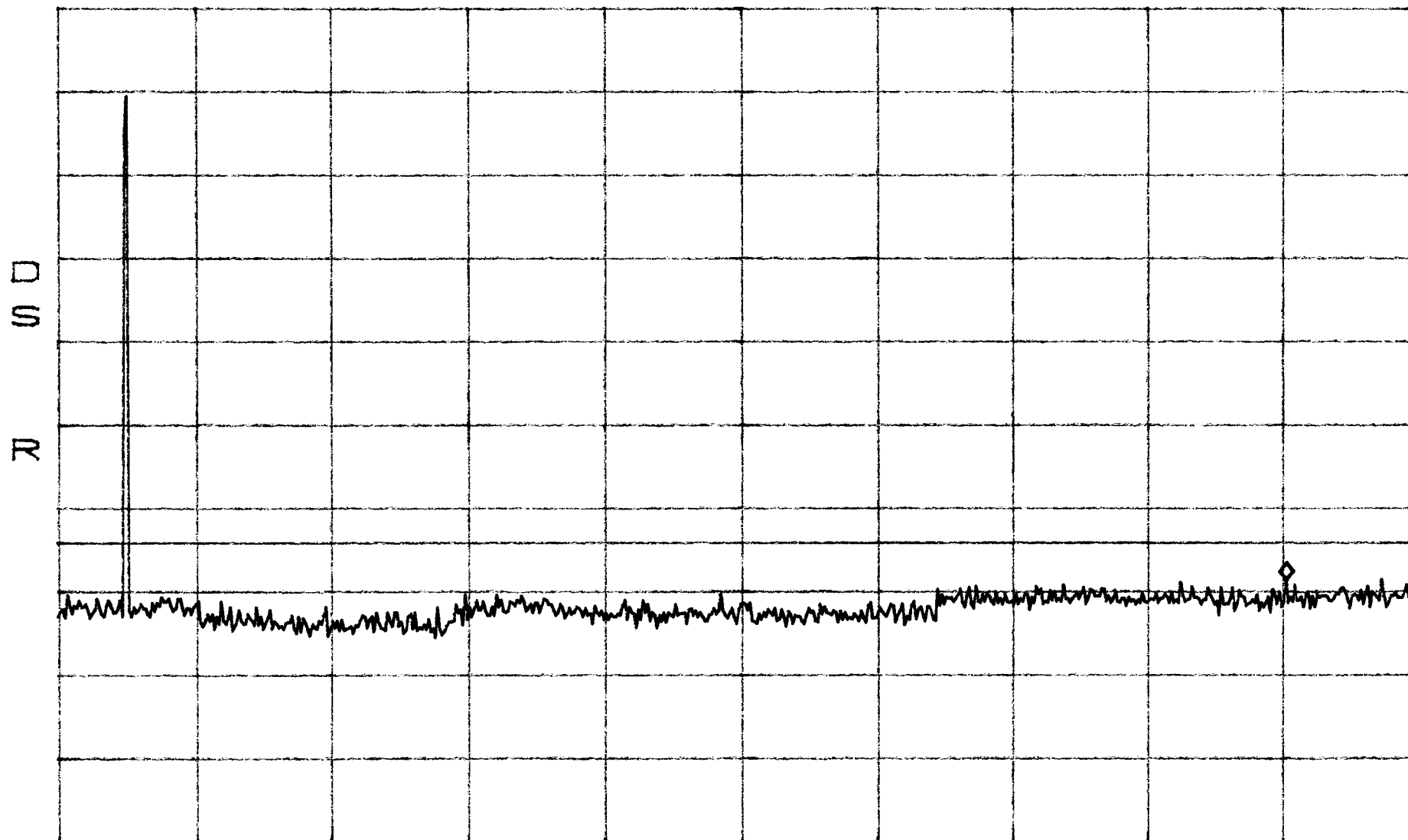


START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND A,D
Apert
TDMA

*ATTEN 30dB
RL 51.3dBm

MKR -17.20dBm
18.16GHz

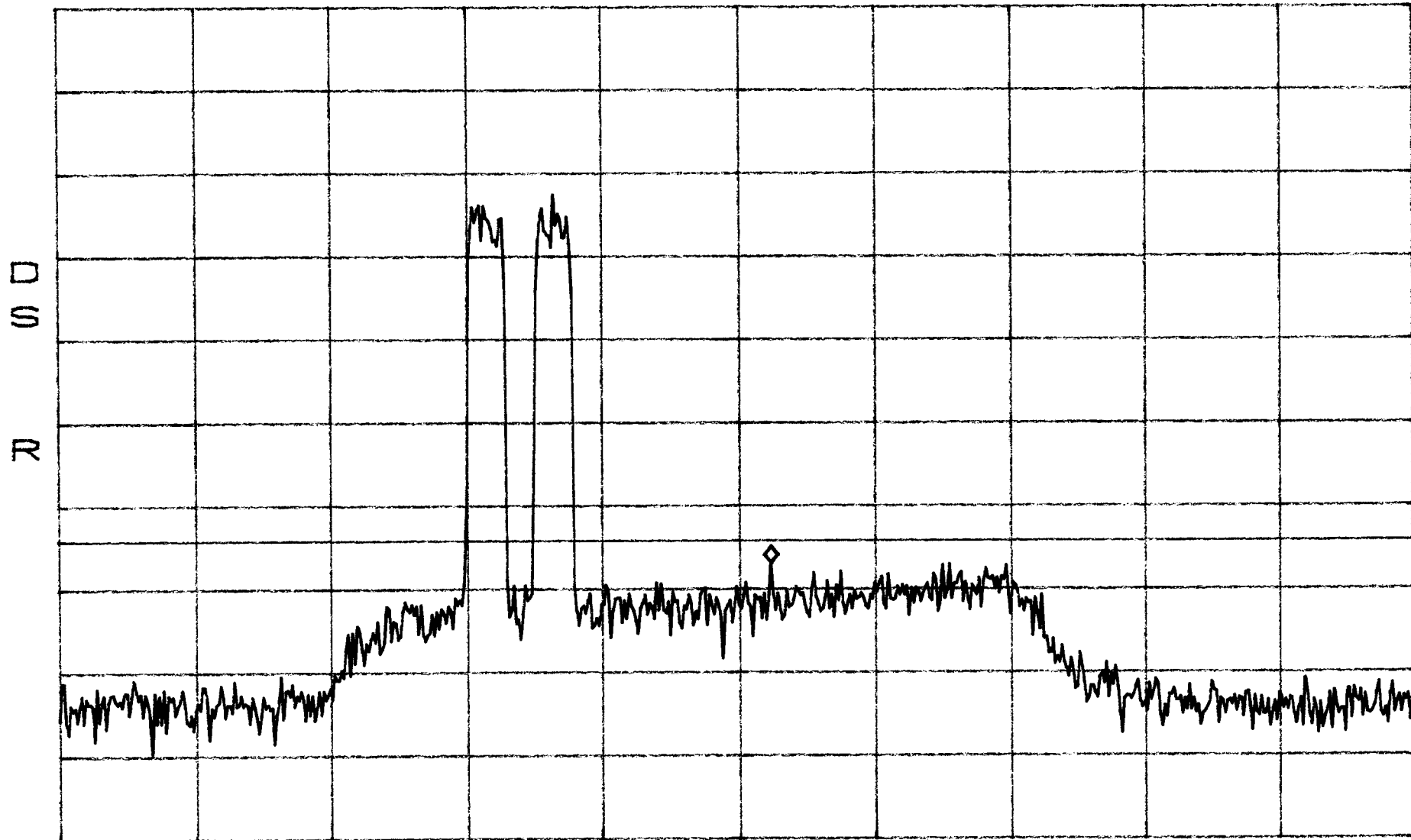


START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation BAND A,D
Close
CDMA

*ATTEN 30dB
RL 51.3dBm

MKR -15.53dBm
1.94117GHz



CENTER 1.94000GHz
*RBW 30kHz VBW 30kHz

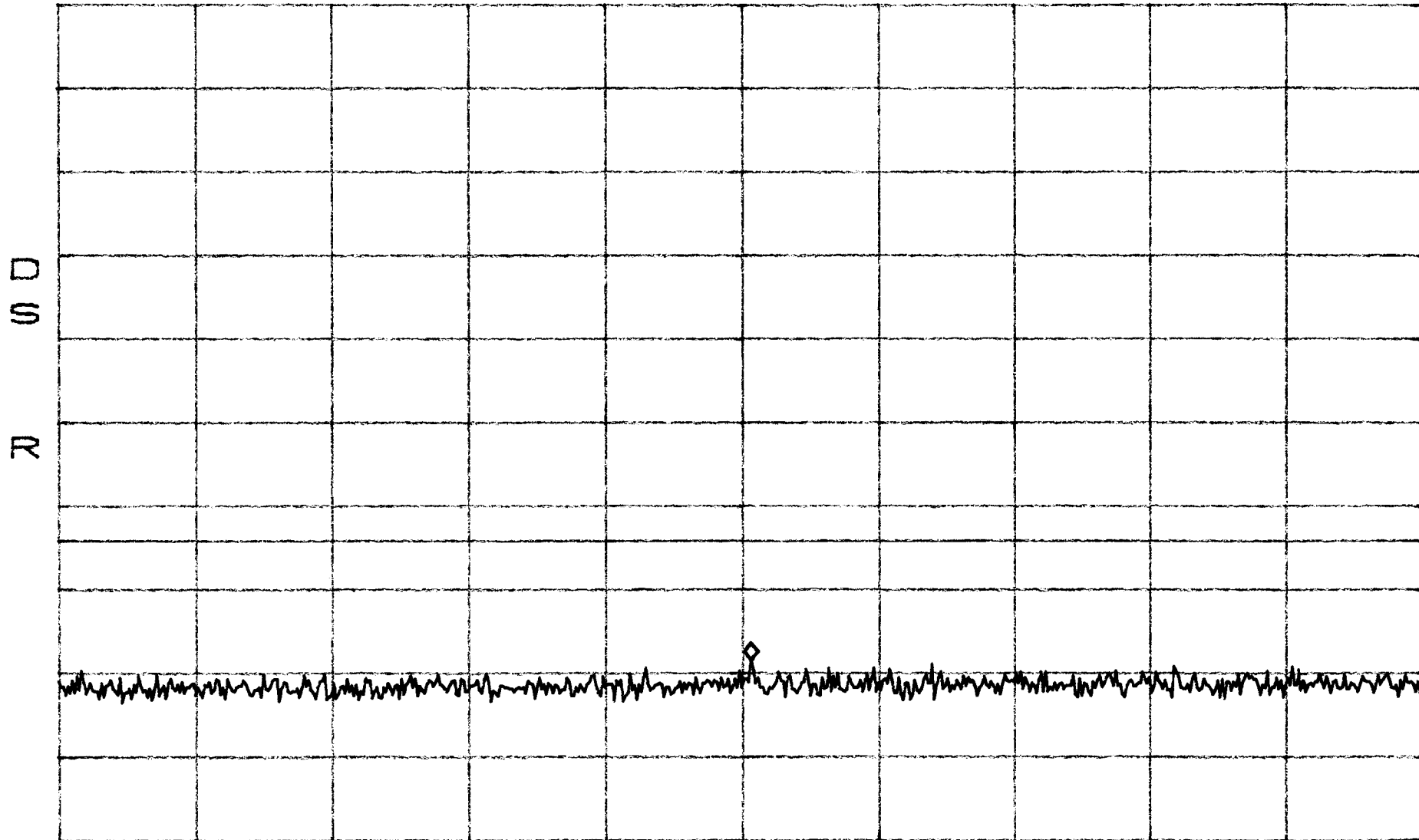
SPAN 50.00MHz
SWP 140ms

Intermodulation BAND A,D
Close
CDMA

*ATTEN 30dB
RL 51.3dBm

MKR -27.03dBm
521.5MHz

10dB/



START 30.0MHz

STOP 1.0000GHz

*RBW 30kHz

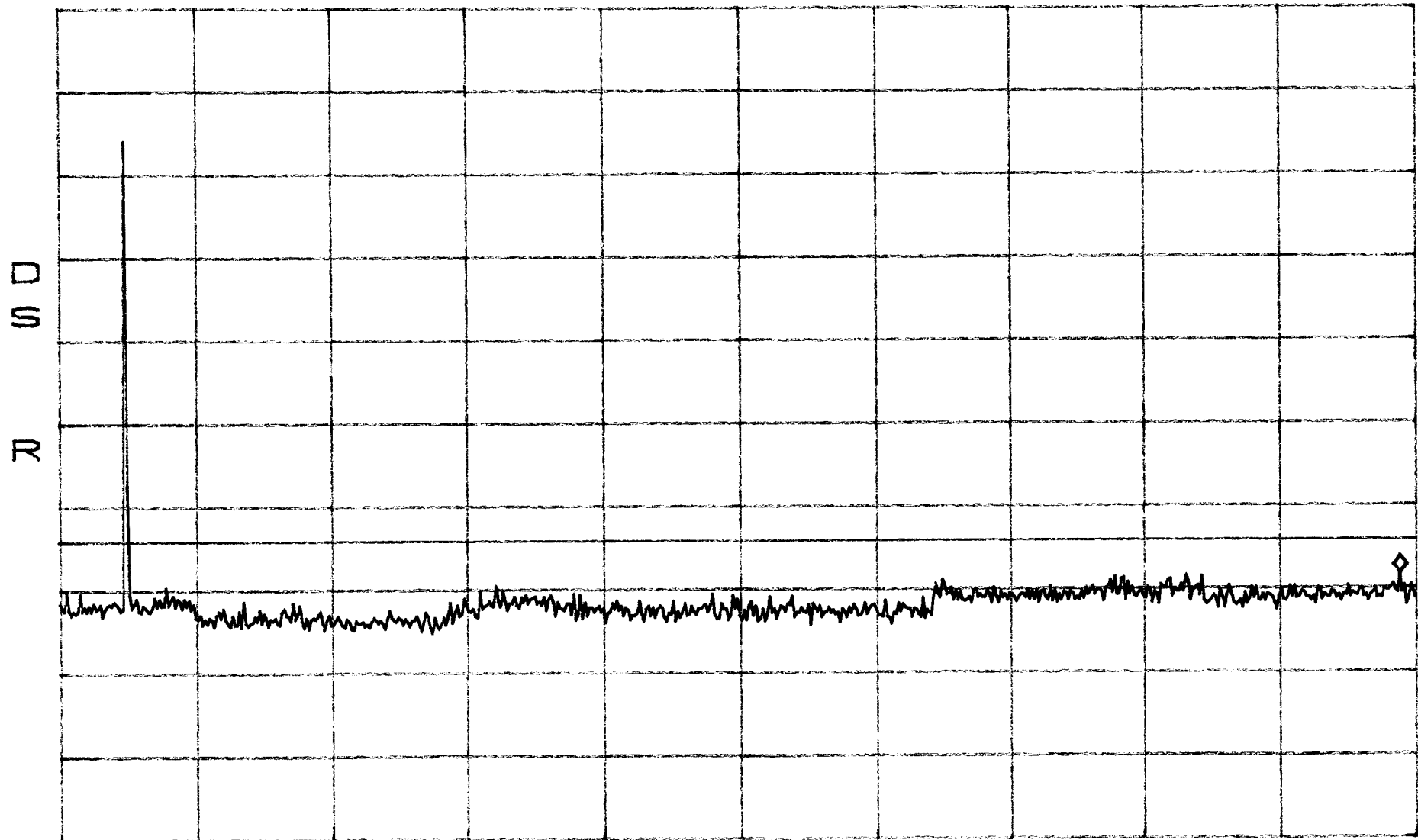
VBW 30kHz

SWP 2.7sec

Intermodulation BAND A,D
Close
CDMA

*ATTEN 30dB
RL 51.3dBm

MKR -16.87dBm
19.78GHz



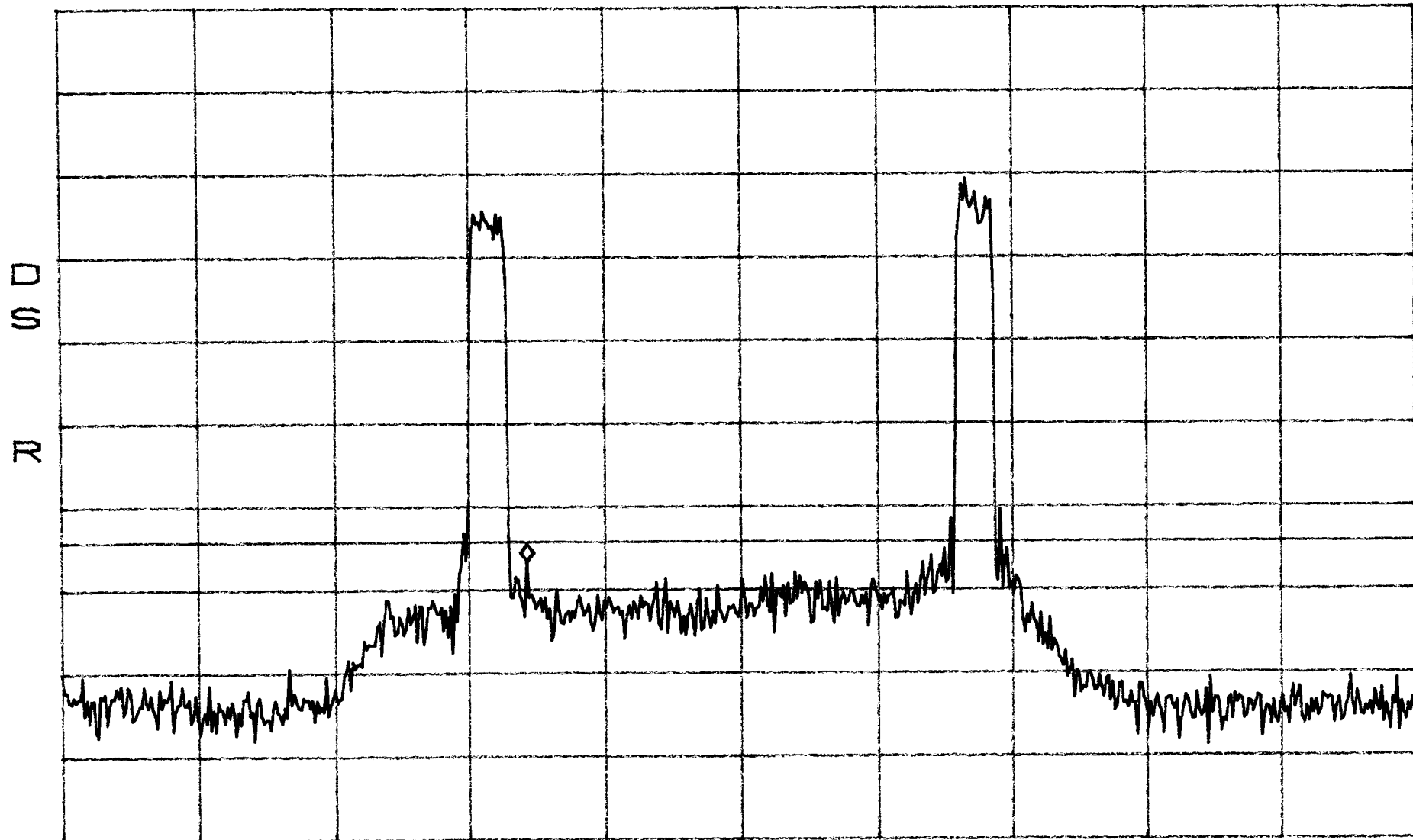
START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation BAND A,D
Apart
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -15.20dBm
1.93217GHz



CENTER 1.94000GHz
*RBW 30kHz VBW 30kHz

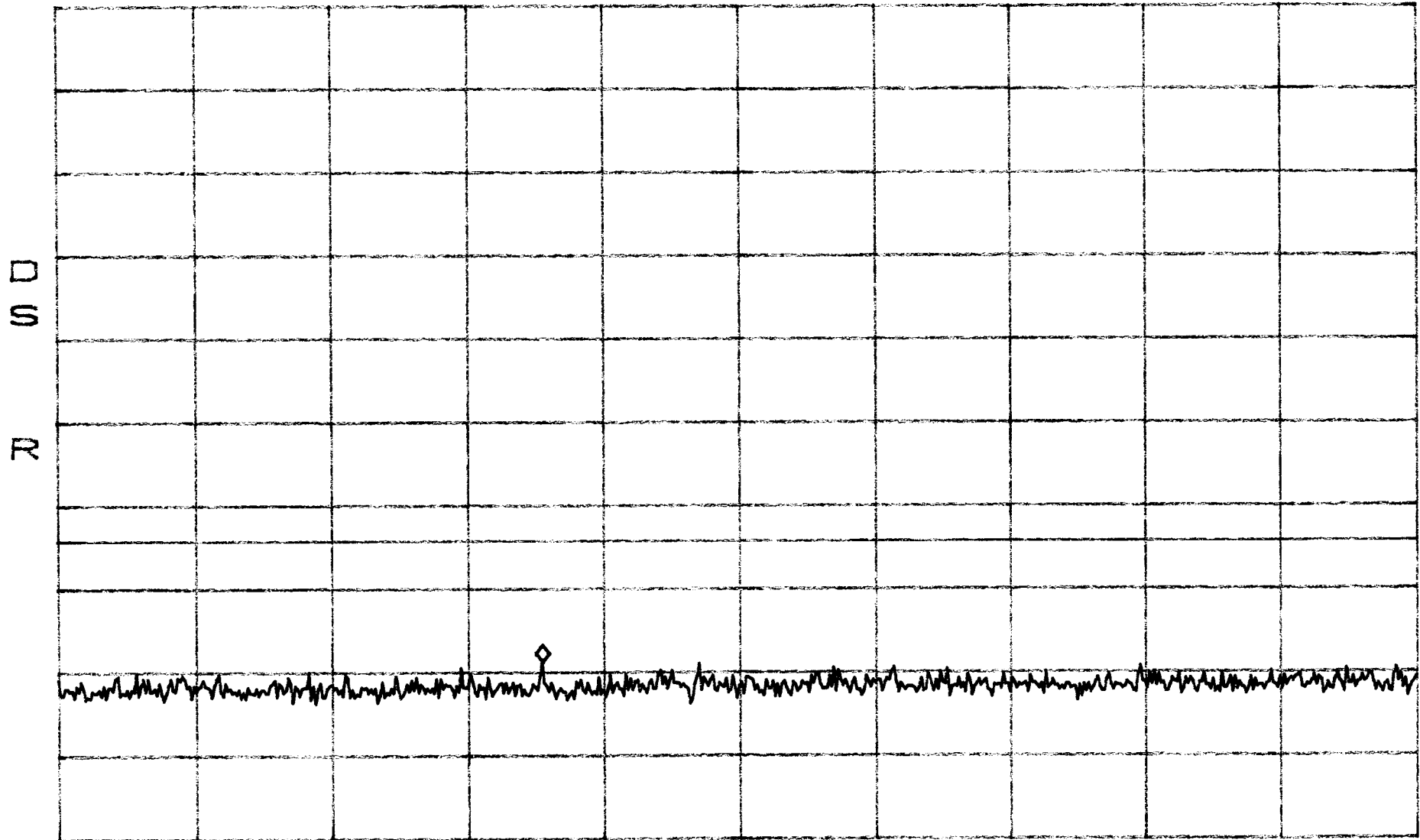
SPAN 50.00MHz
SWP 140ms

Intermodulation Band A,D
Apert
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -27.37dBm
374.4MHz



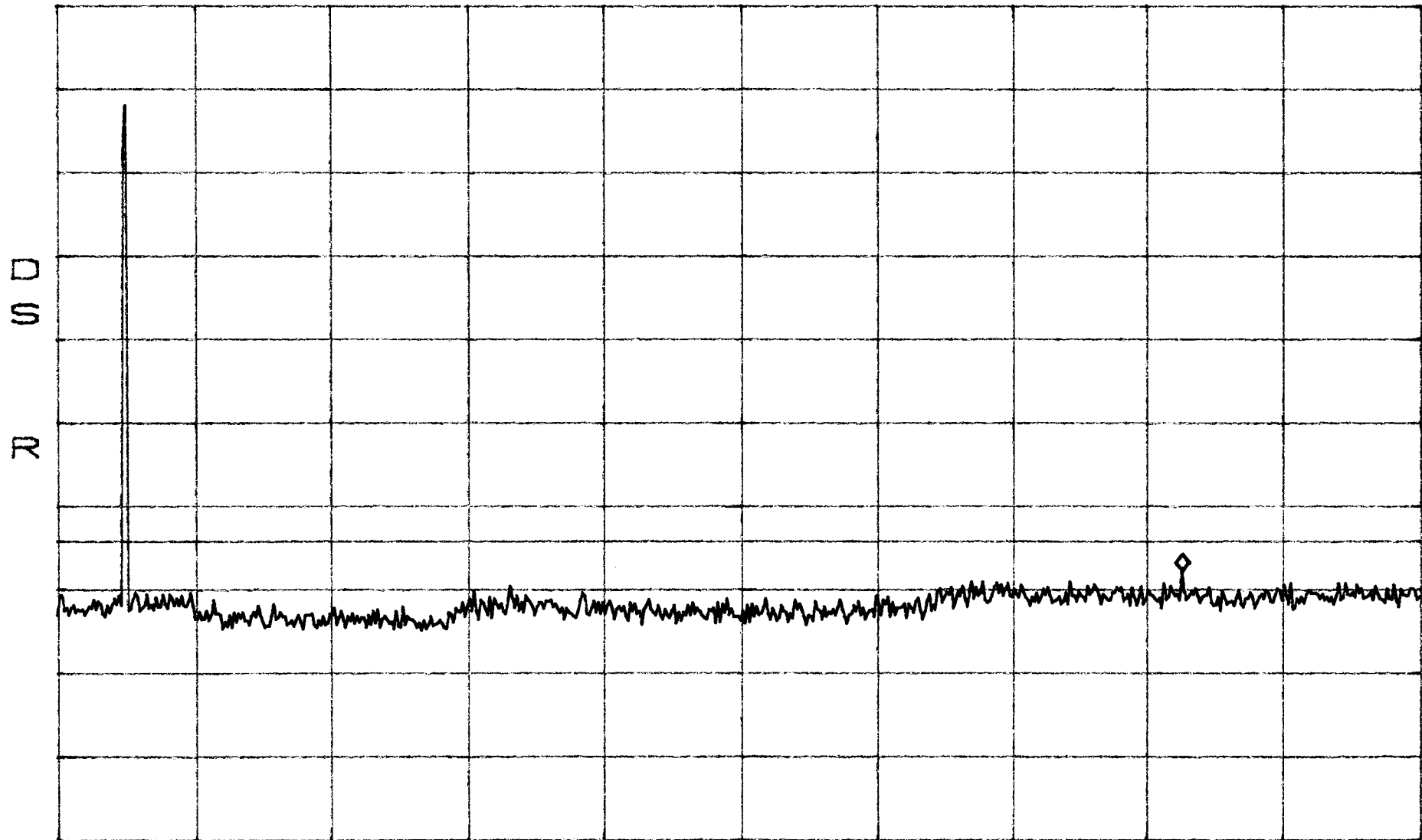
START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND A,D
Apert
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -16.37dBm
16.71GHz



START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation

BAND D,B,E

Close

FM

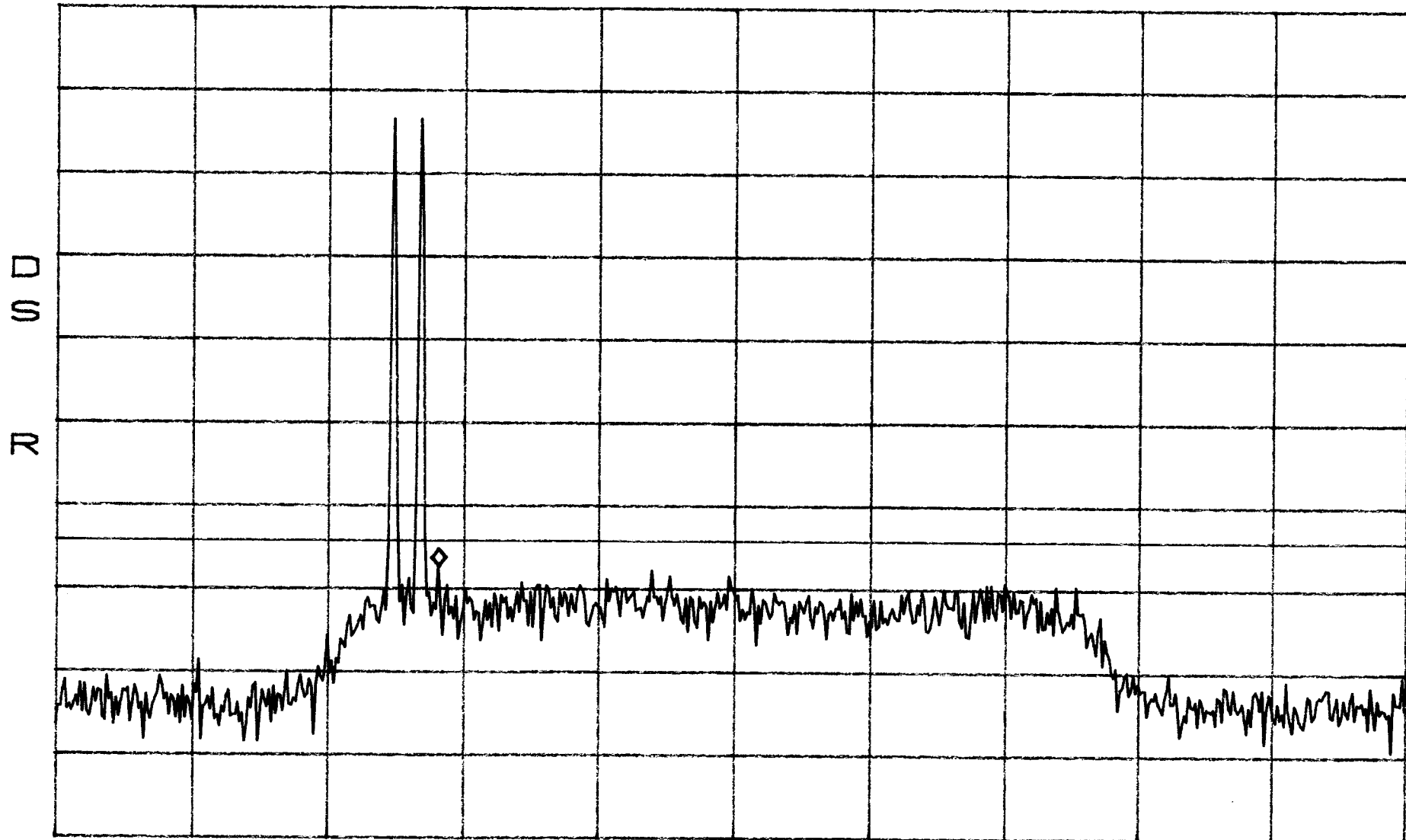
*ATTEN 30dB

MKR -15.87dBm

RL 51.3dBm

10dB/

1.94658GHz



CENTER 1.95750GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

SWP 140ms

Intermodulation

BAND D,B,E

Close

FM

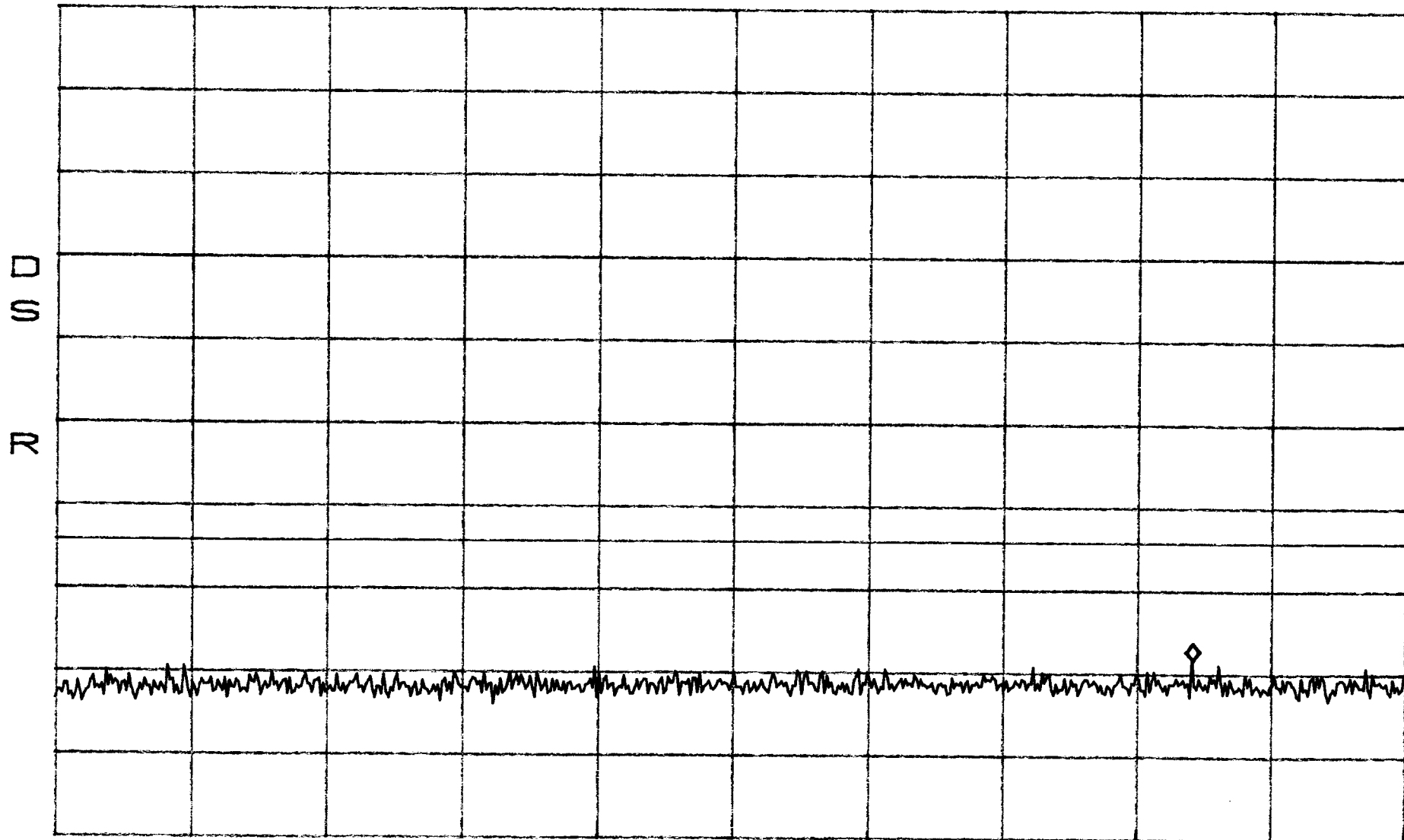
*ATTEN 30dB

MKR -26.87dBm

RL 51.3dBm

10dB/

846.4MHz



START 30.0MHz

STOP 1.0000GHz

*RBW 30kHz

VBW 30kHz

SWP 2.7sec

Intermodulation

BAND D,B,E

Close

FM

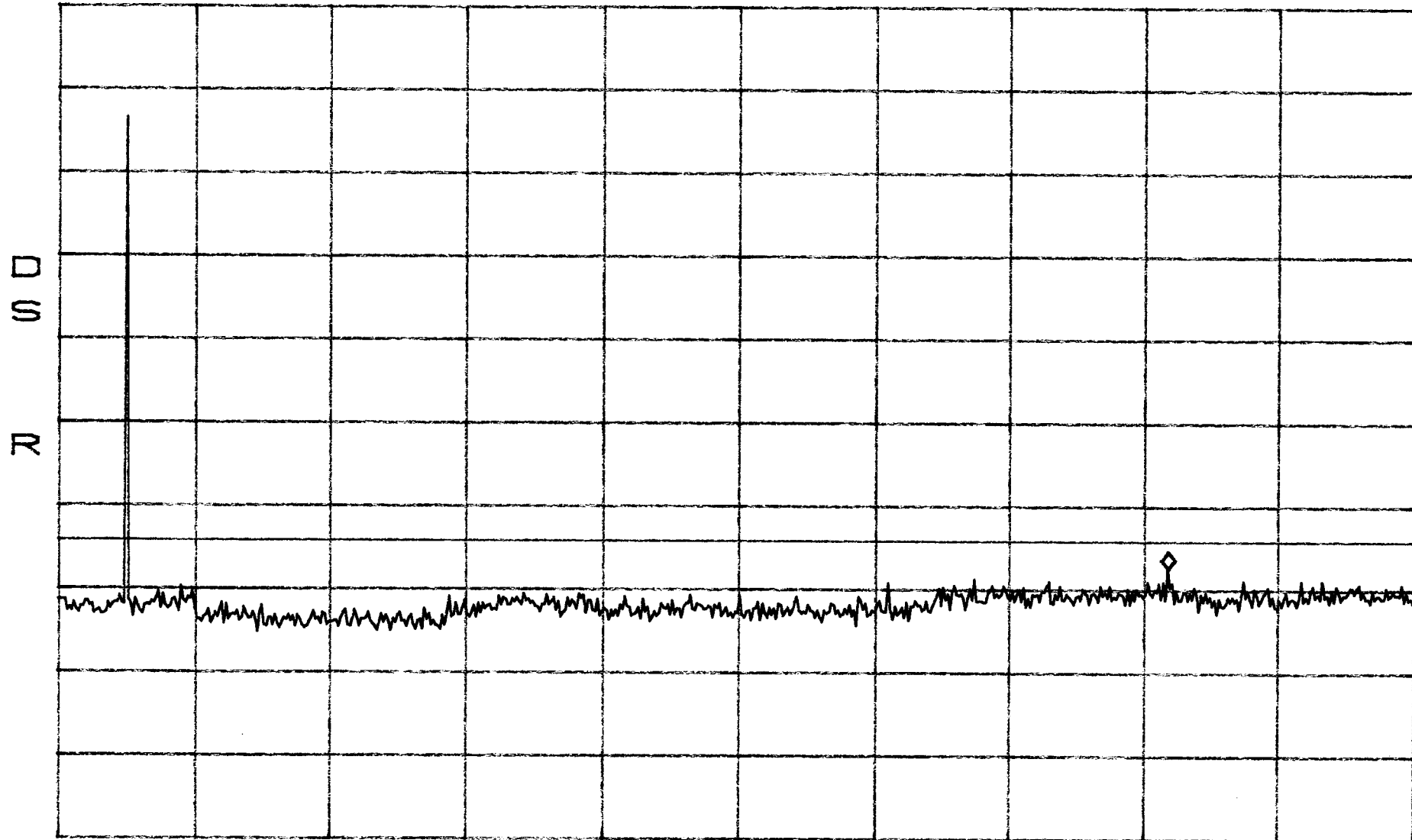
*ATTEN 30dB

MKR -16.03dBm

RL 51.3dBm

10dB/

16.55GHz



START 1.00GHz

STOP 20.00GHz

*RBW 300kHz

VBW 300kHz

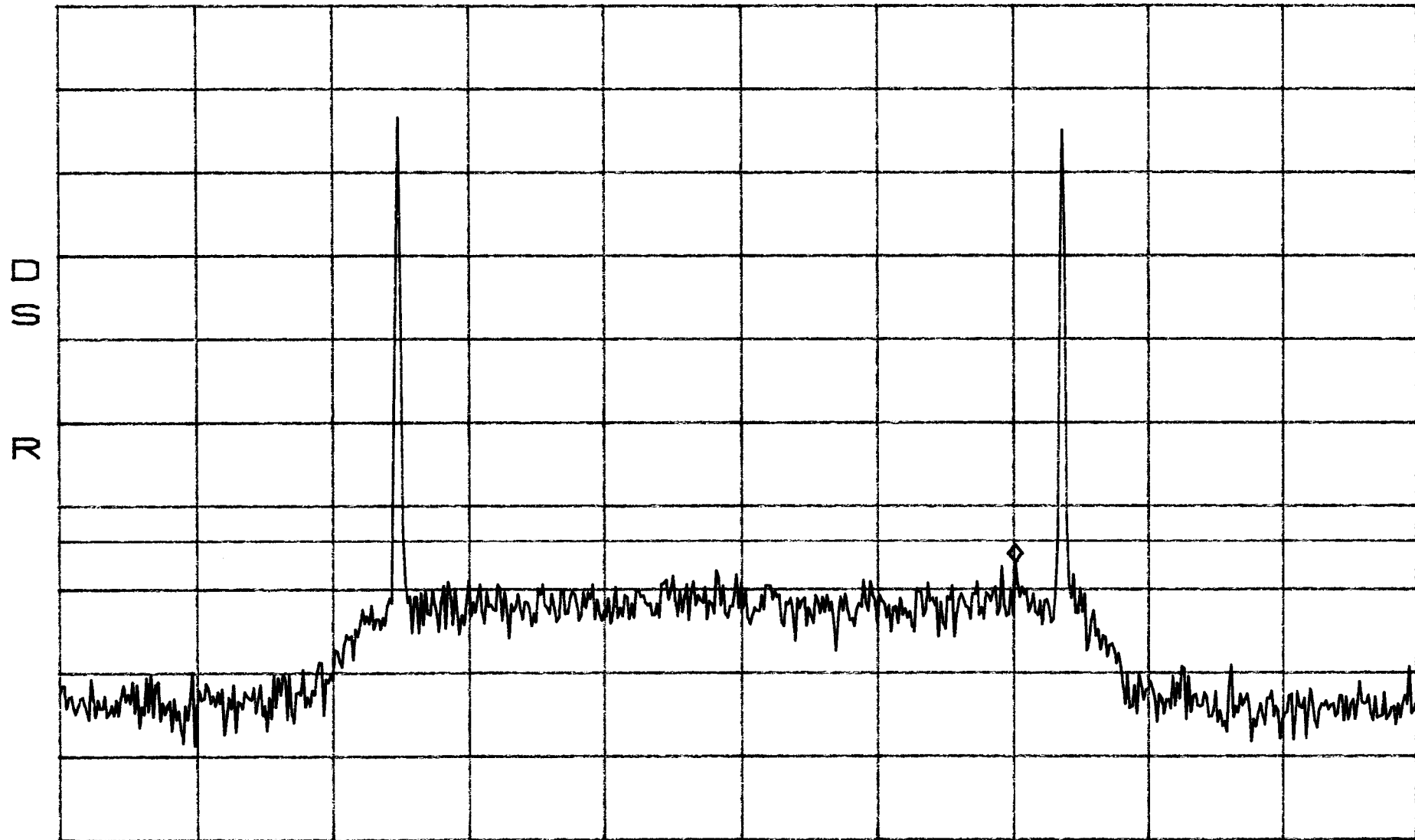
SWP 530ms

Intermodulation BAND D,B,E
Apart
FM

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -15.37dBm
1.96758GHz



CENTER 1.95750GHz
*RBW 30kHz VBW 30kHz

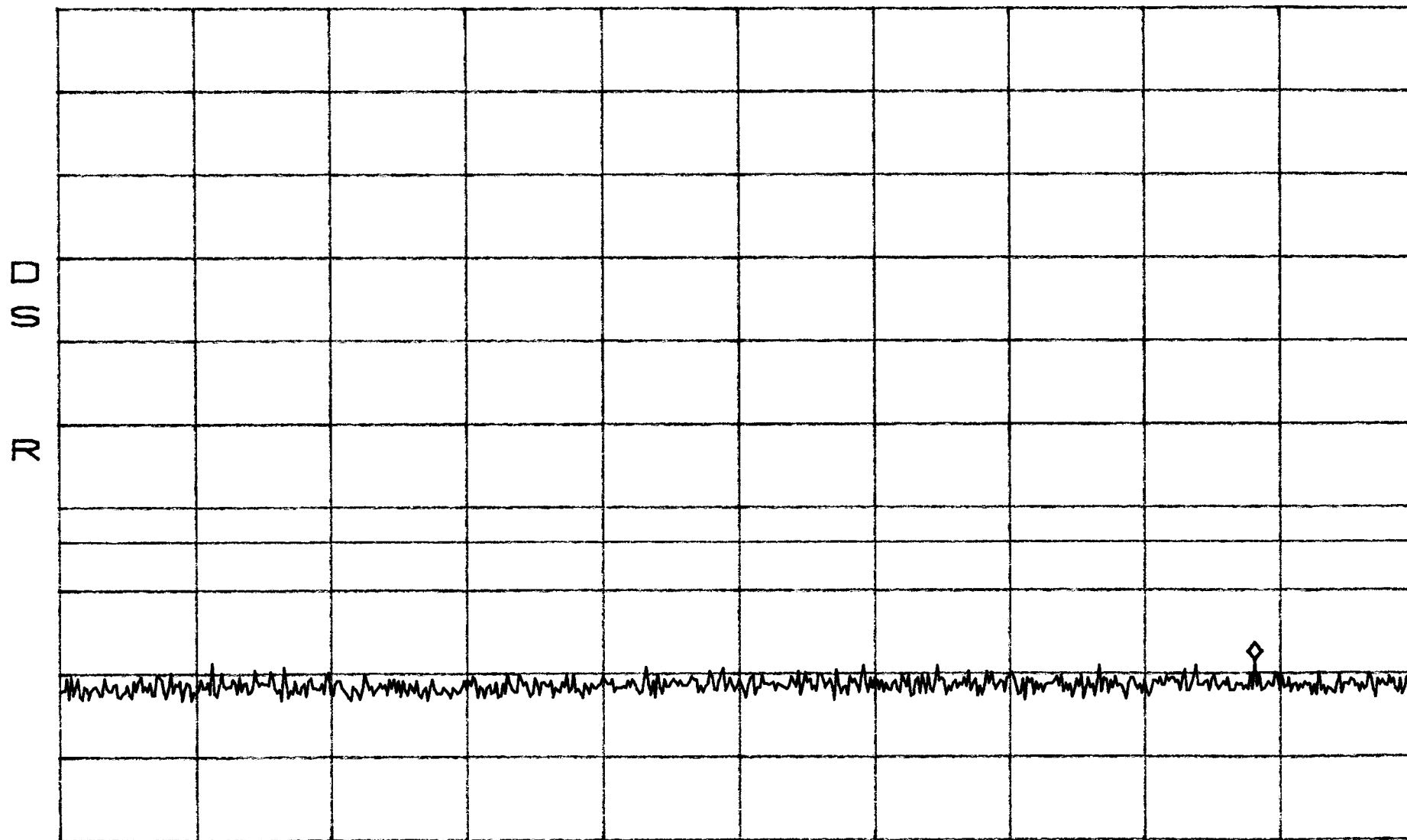
SPAN 50.00MHz
SWP 140ms

Intermodulation BAND D,B,E
Apert
FM

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -27.03dBm
885.2MHz



START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND D,B,E
Apert
FM

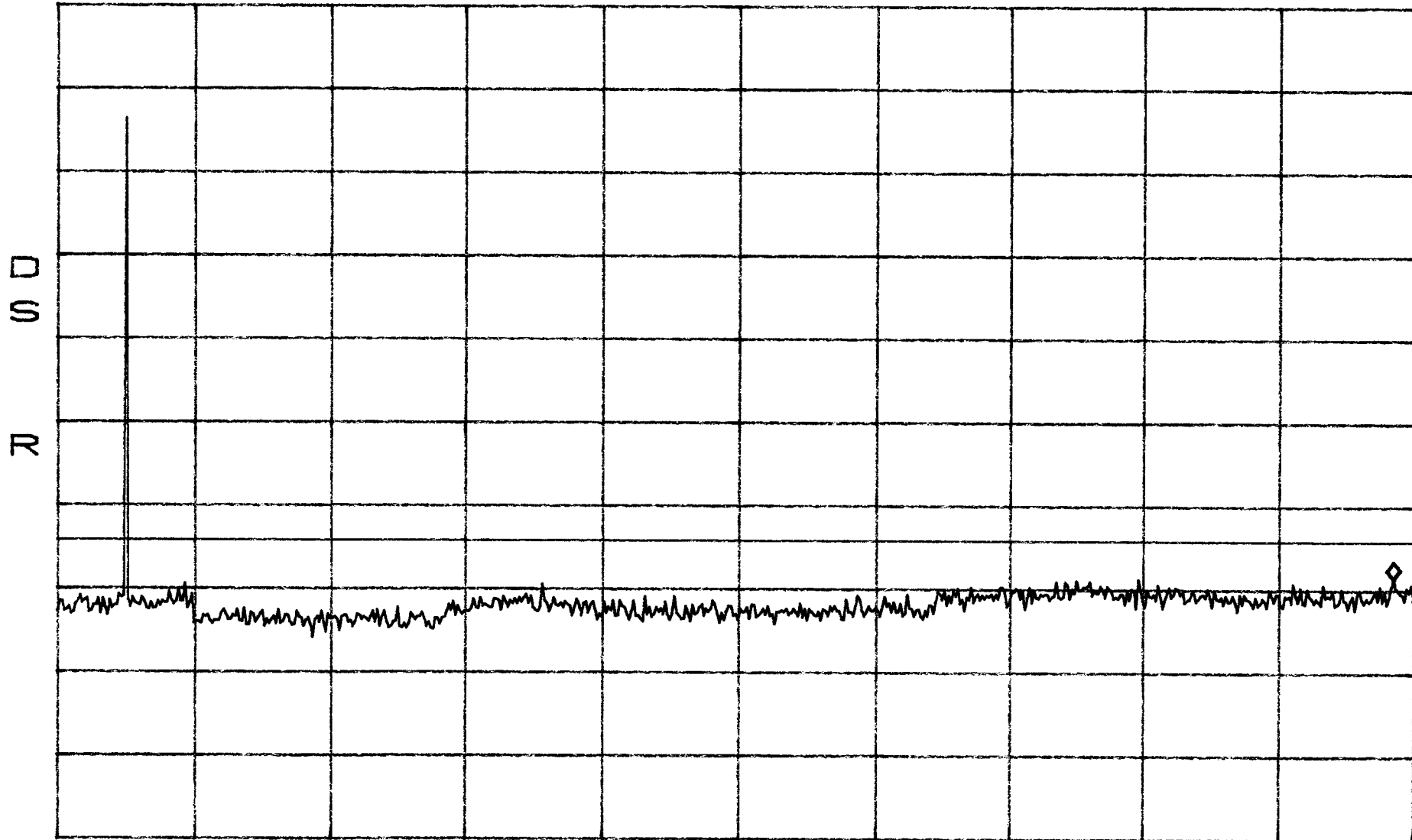
*ATTEN 30dB

MKR -17.20dBm

RL 51.3dBm

10dB/

19.72GHz



START 1.00GHz

STOP 20.00GHz

*RBW 300kHz

VBW 300kHz

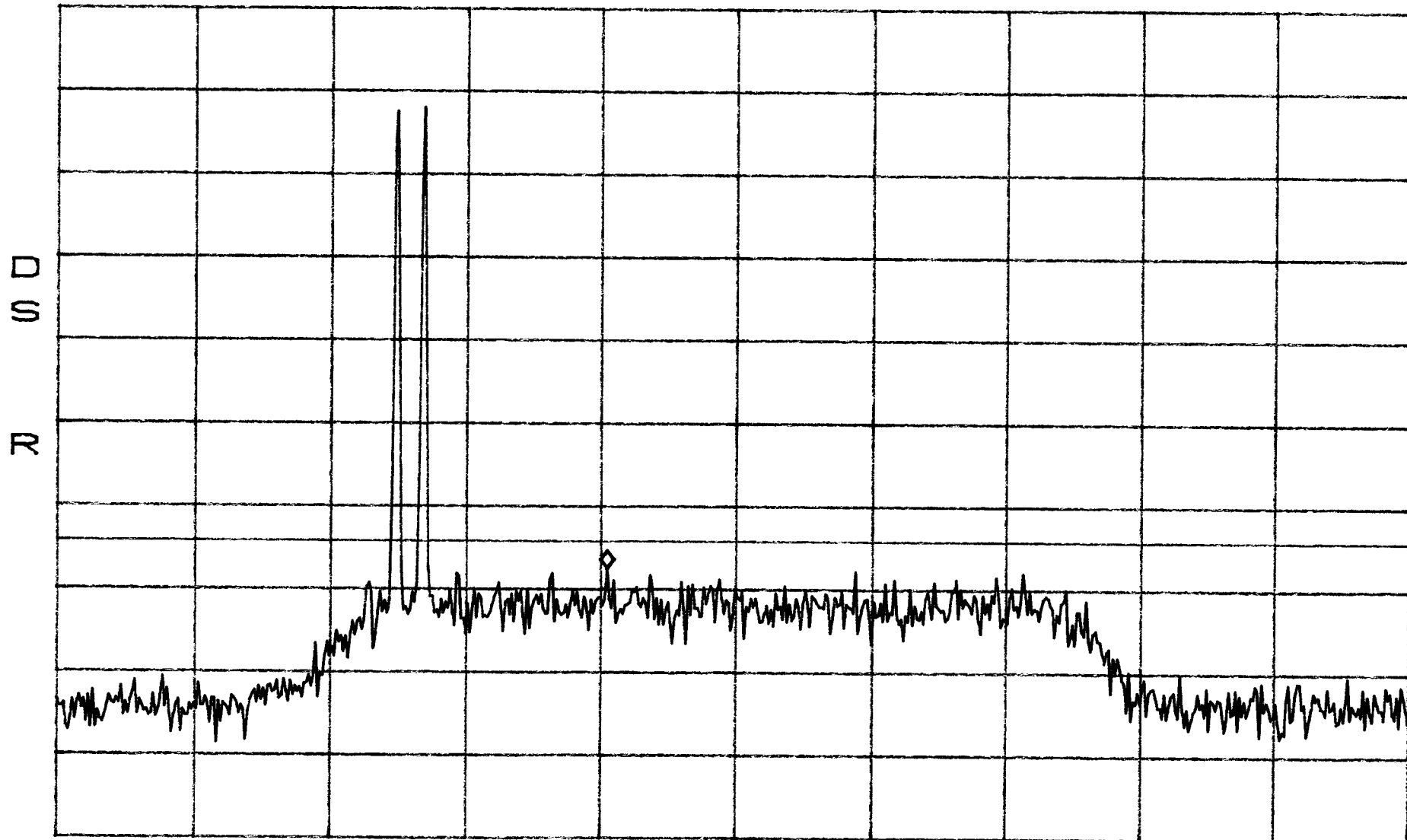
SWP 530ms

Intermodulation BAND D,B,E
Close
TDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -16.03dBm
1.95275GHz



CENTER 1.95750GHz
*RBW 30kHz VBW 30kHz

SPAN 50.00MHz
SWP 140ms

Intermodulation
Close
TDMA

BAND D,B,E

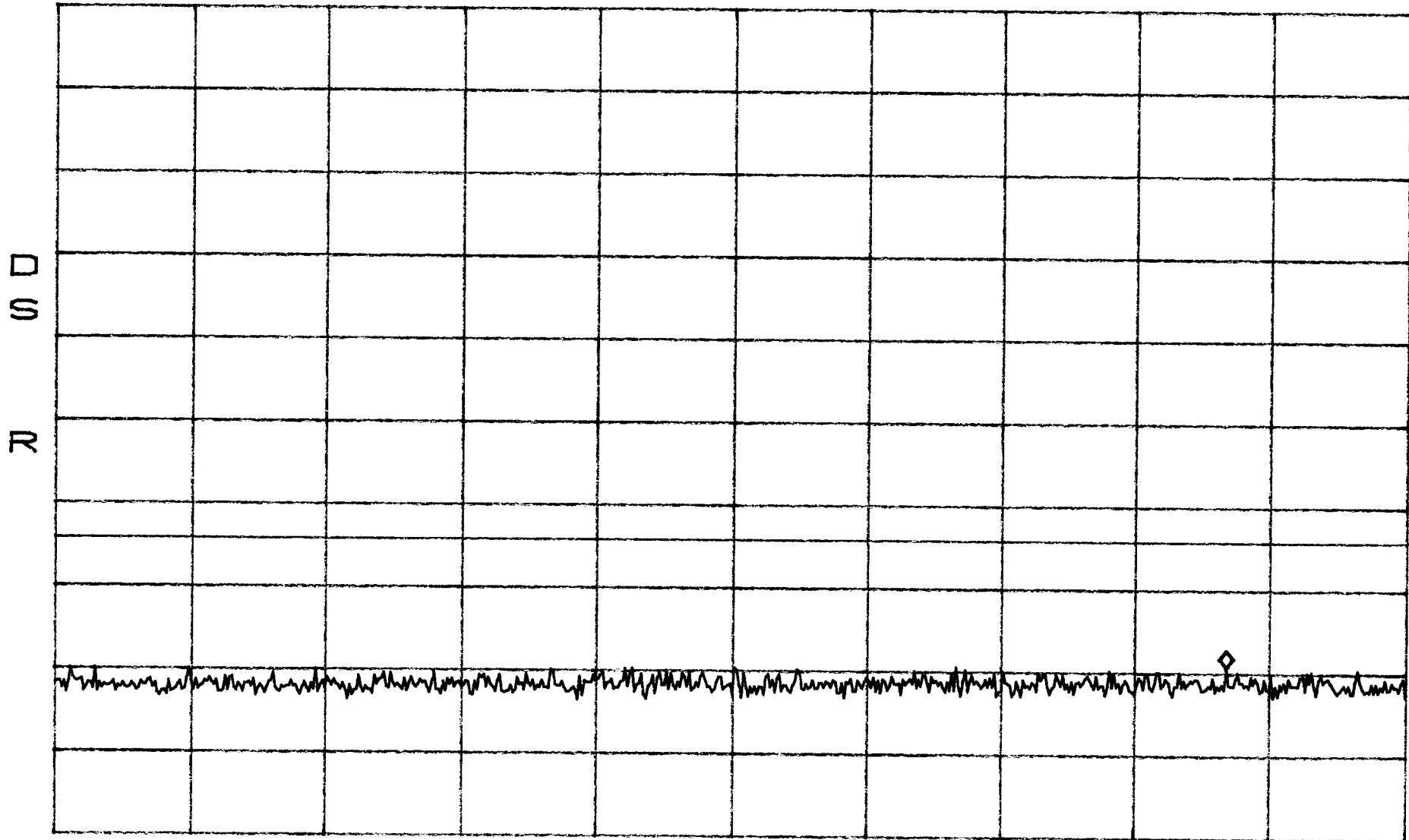
*ATTEN 30dB

MKR -27.87dBm

RL 51.3dBm

10dB/

872.3MHz



START 30.0MHz

STOP 1.0000GHz

*RBW 30kHz

VBW 30kHz

SWP 2.7sec

Intermodulation
Close
TDMA

BAND D,B,E

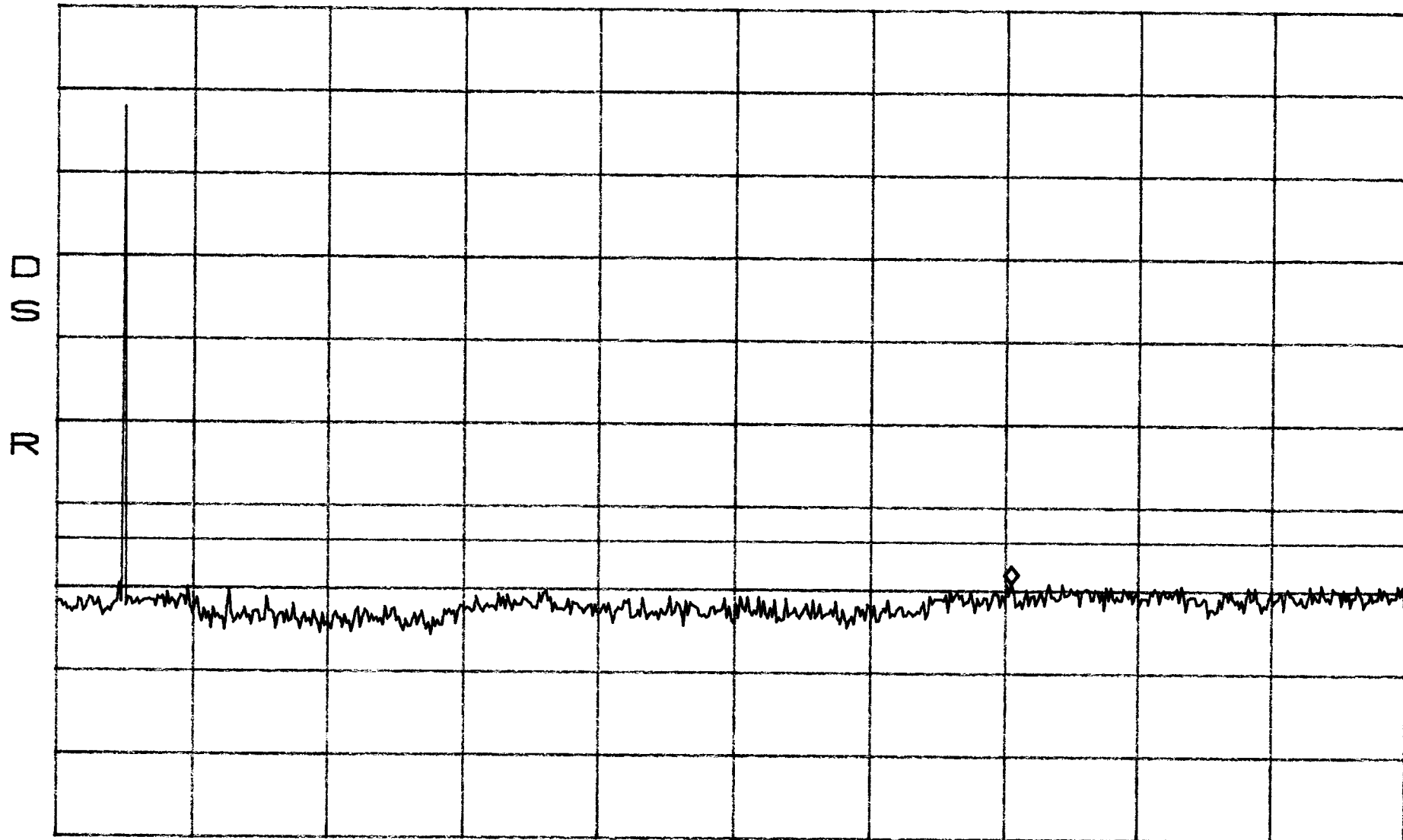
*ATTEN 30dB

MKR -17.70dBm

RL 51.3dBm

10dB/

14.40GHz



START 1.00GHz

STOP 20.00GHz

*RBW 300kHz

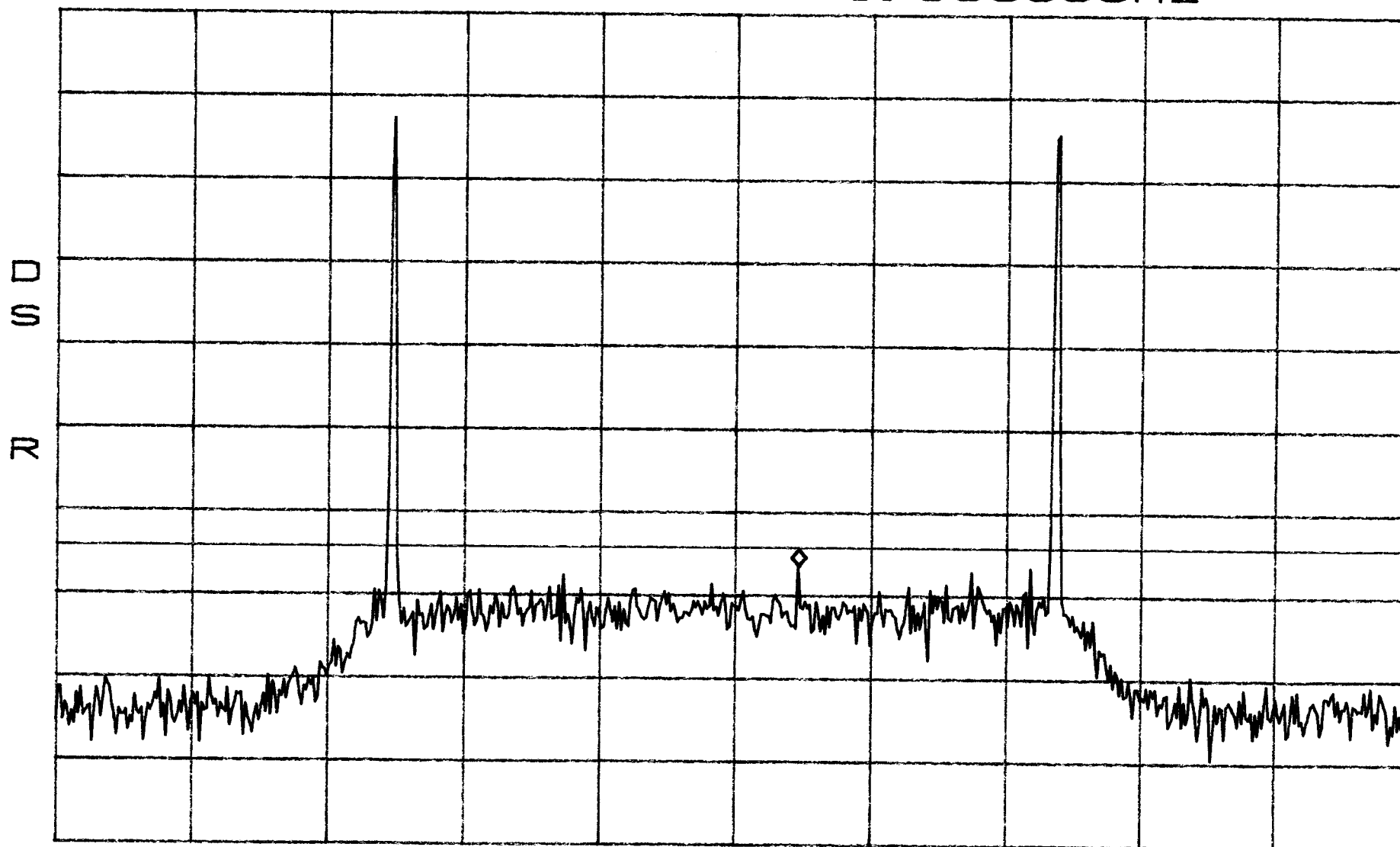
VBW 300kHz

SWP 530ms

Intermodulation BAND D,B,E
Apart
TDMA

*ATTEN 30dB
RL 51.3dBm

MKR -15.03dBm
1.95983GHz



CENTER 1.95750GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

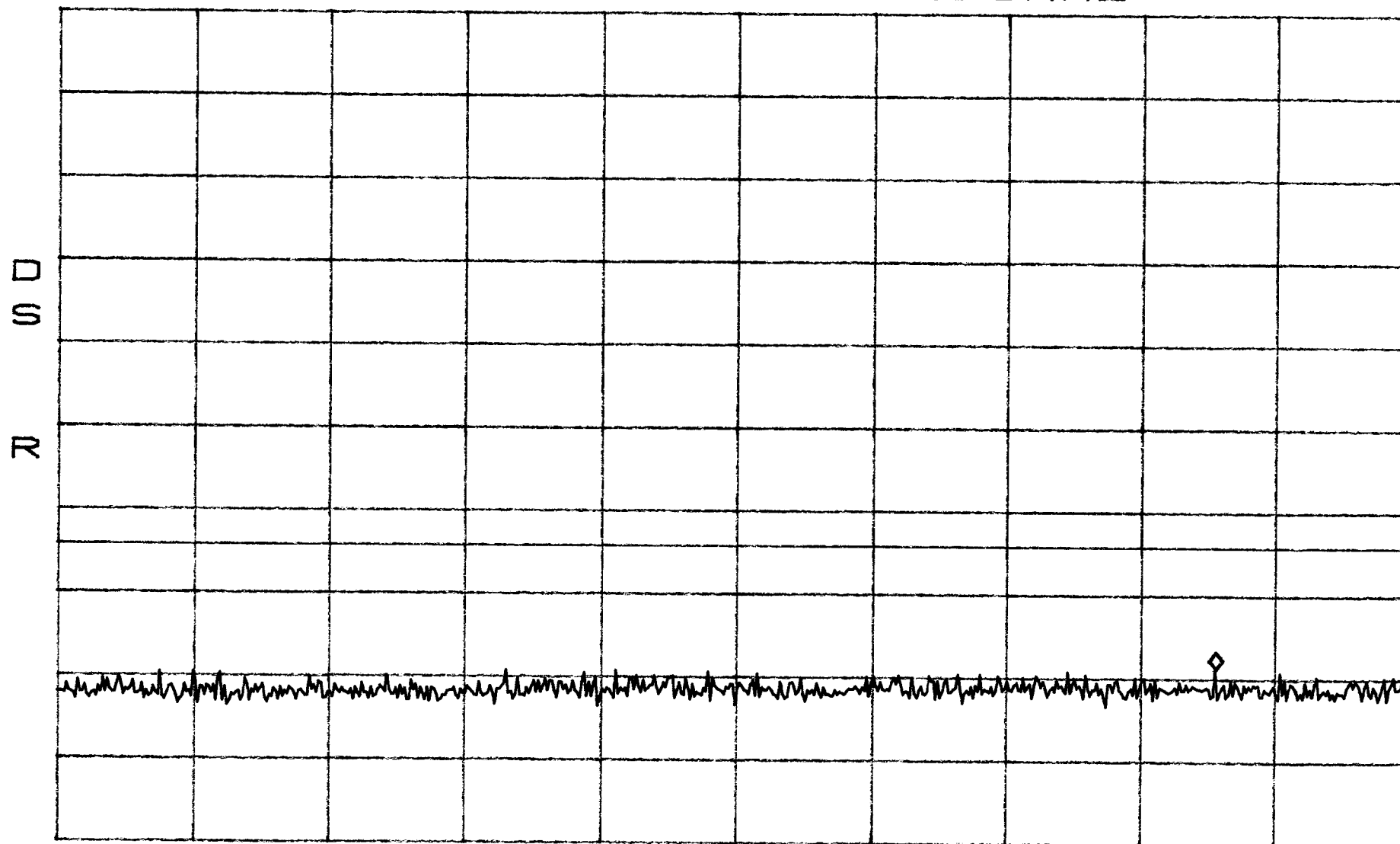
SWP 140ms

Intermodulation BAND D,B,E
Apart
TDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -27.37dBm
861.0MHz



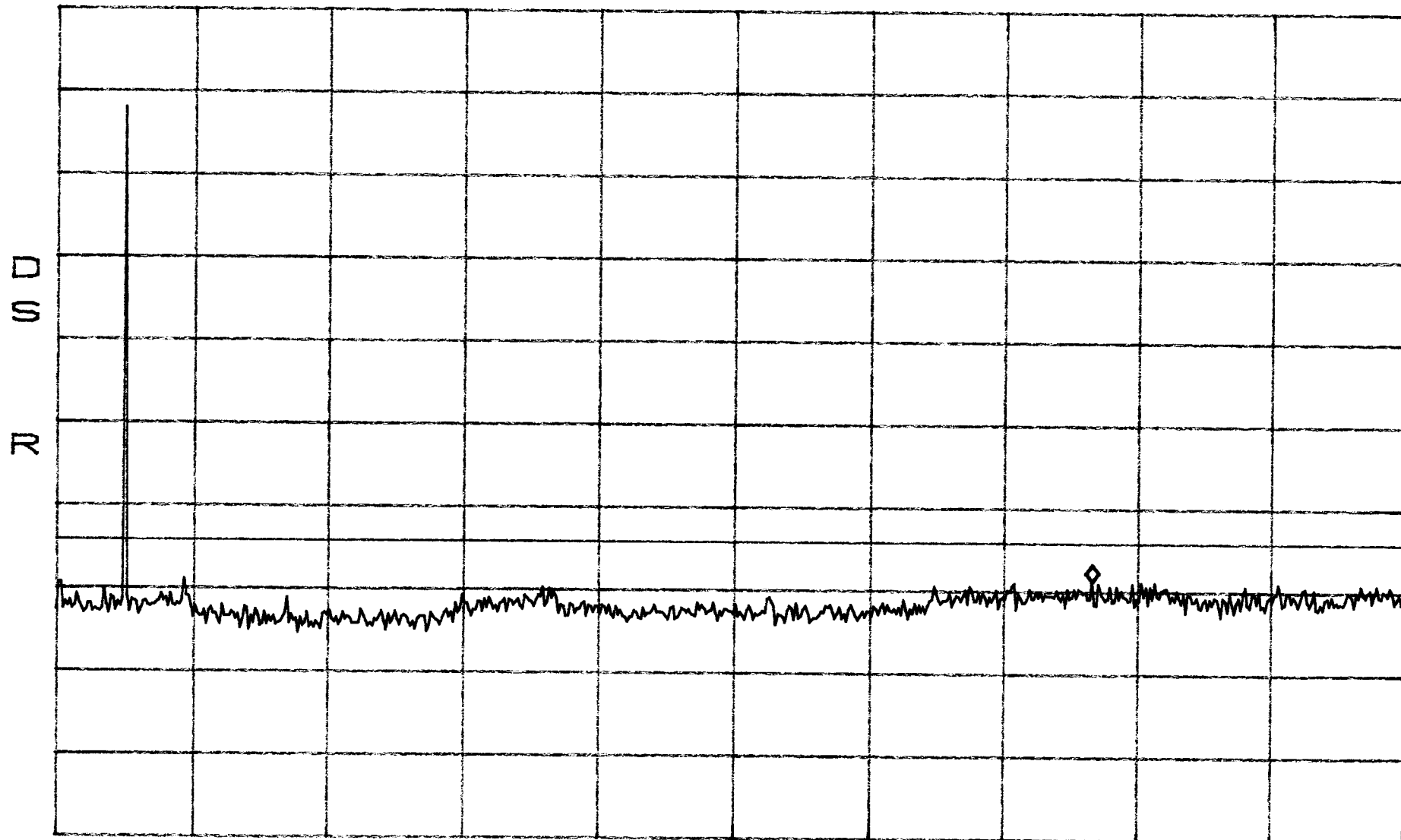
START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND D,B,E
Apart
TDMA

*ATTEN 30dB
RL 51.3dBm

MKR -17.37dBm
15.57GHz

10dB/



START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms

Intermodulation
Close
CDMA

BAND D,B,E

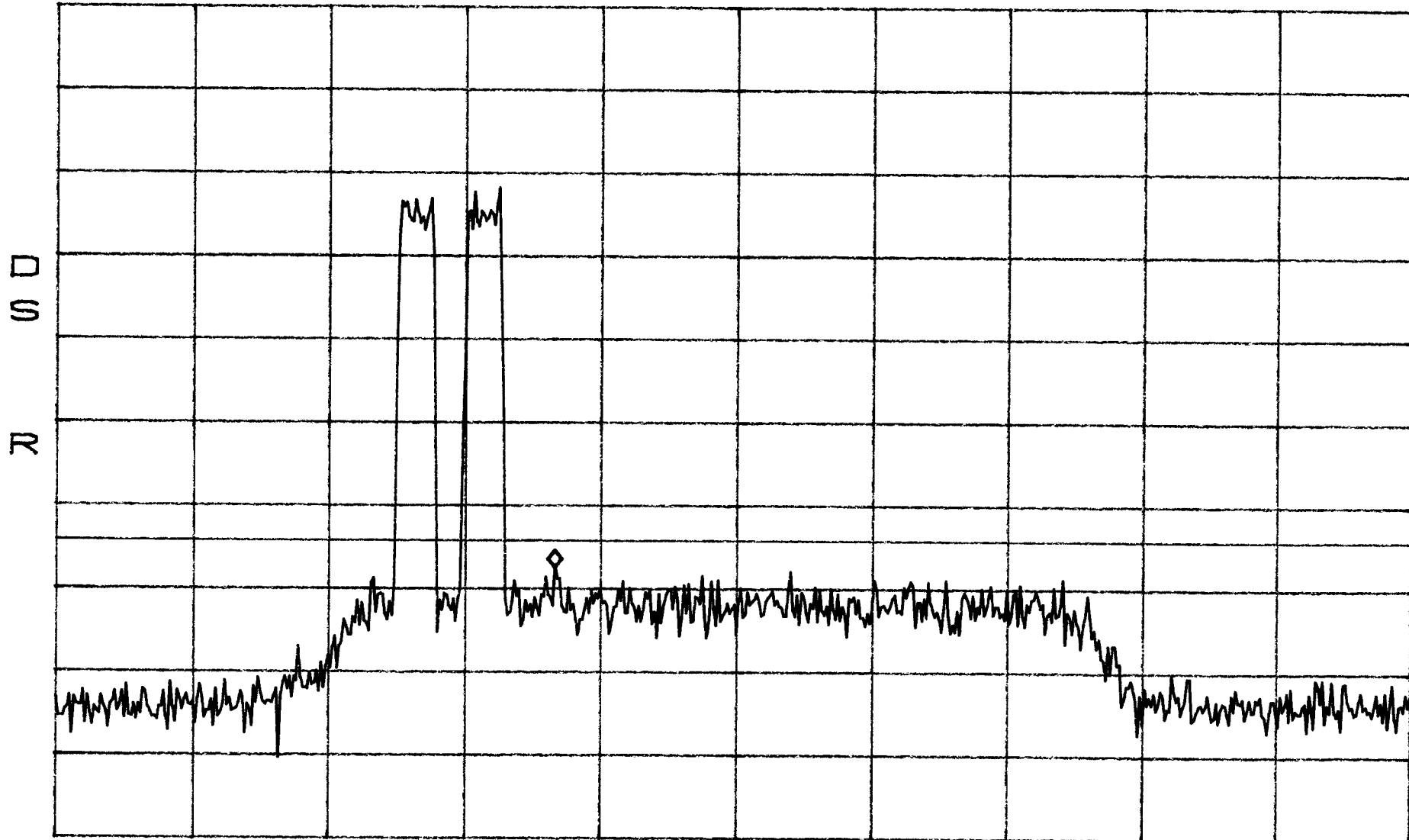
*ATTEN 30dB

MKR -16.03dBm

RL 51.3dBm

10dB/

1.95083GHz



CENTER 1.95750GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

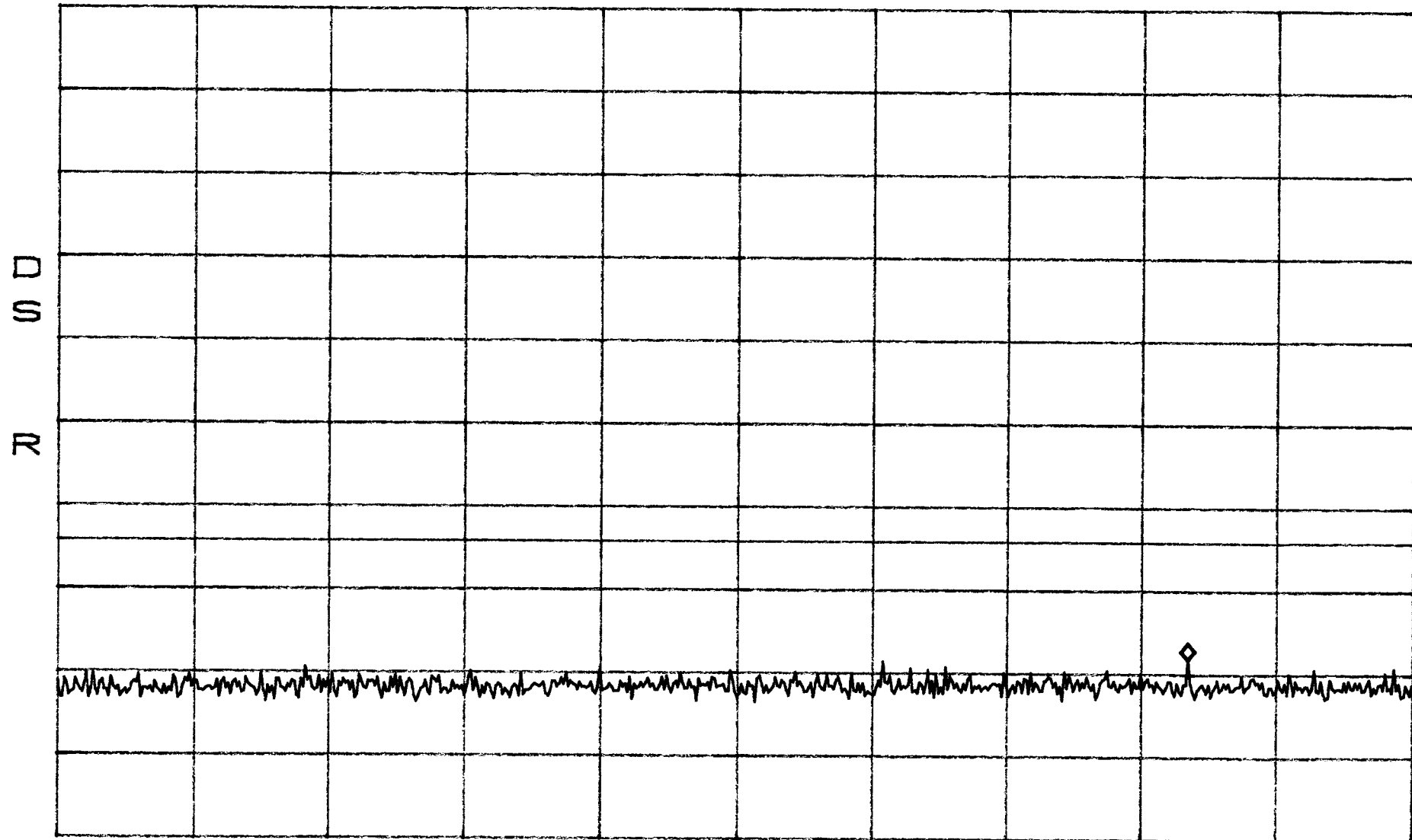
SWP 140ms

Intermodulation BAND D,B,E
Close
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -26.87dBm
840.0MHz



START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

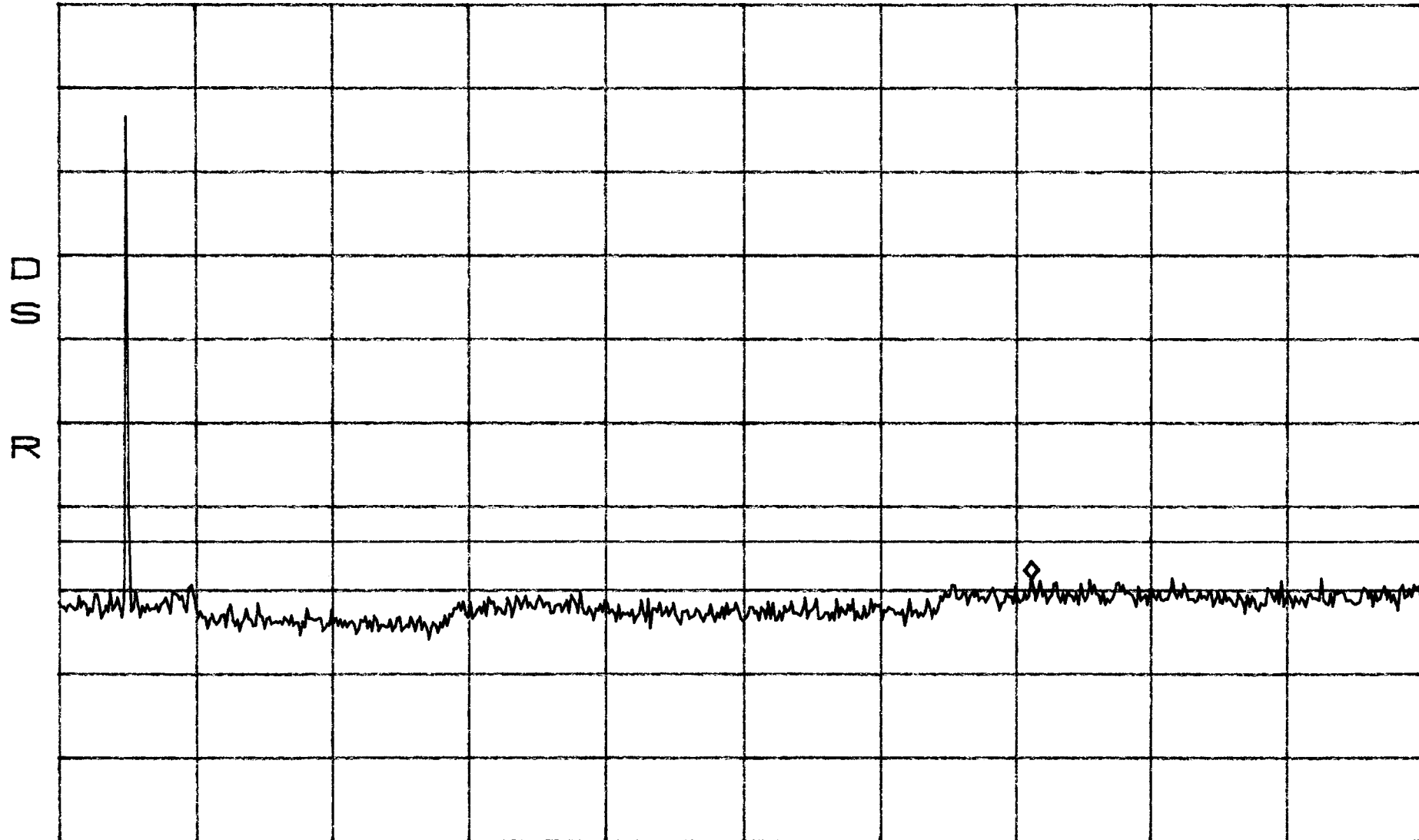
Intermodulation
Close
CDMA

BAND D,B,E

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -17.20dBm
14.52GHz



START 1.00GHz

STOP 20.00GHz

*RBW 300kHz

VBW 300kHz

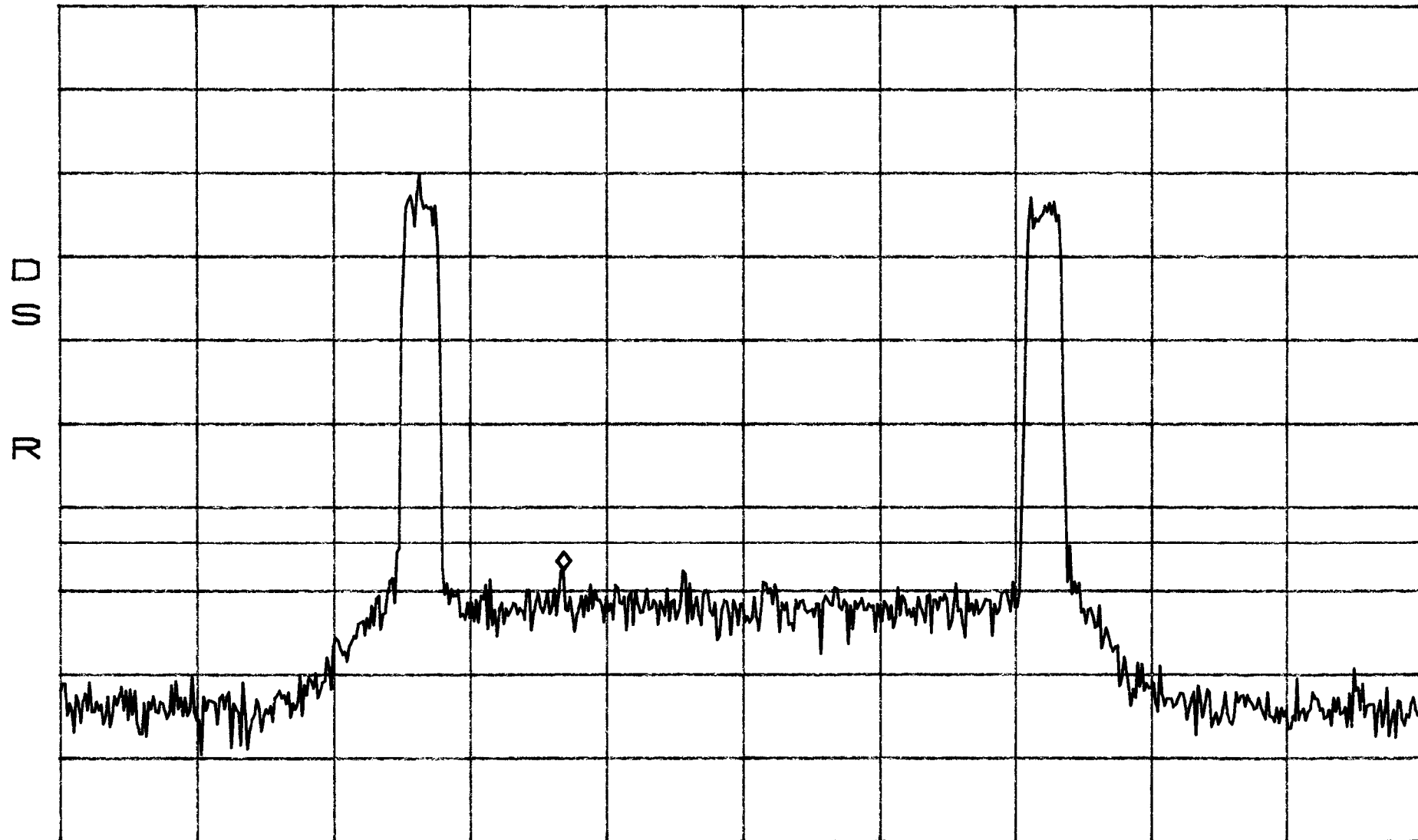
SWP 530ms

Intermodulation BAND D,B,E
Apart
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -16.03dBm
1.95092GHz



CENTER 1.95750GHz

SPAN 50.00MHz

*RBW 30kHz

VBW 30kHz

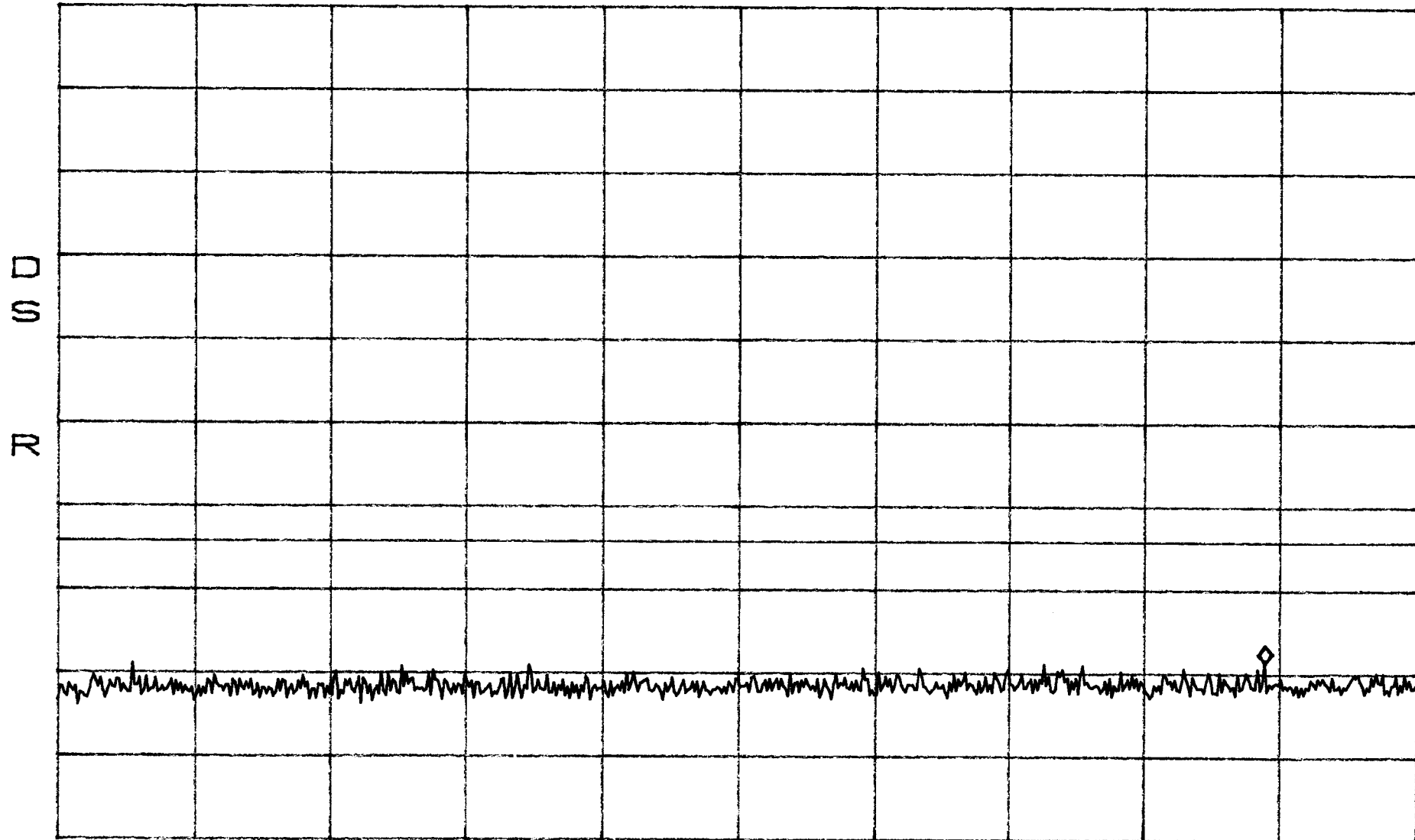
SWP 140ms

Intermodulation BAND D,B,E
Apart
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -27.20dBm
893.3MHz



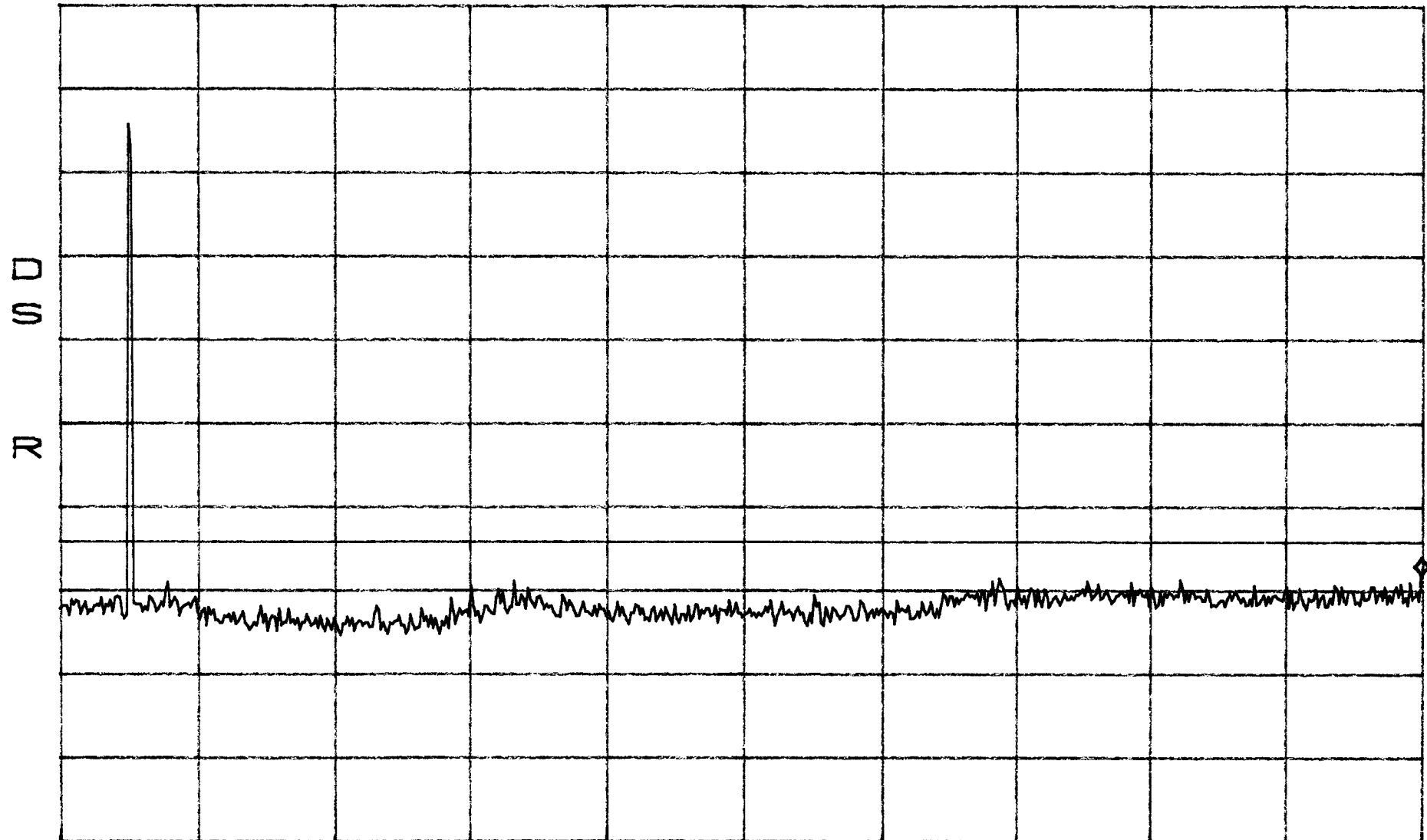
START 30.0MHz STOP 1.0000GHz
*RBW 30kHz VBW 30kHz SWP 2.7sec

Intermodulation BAND D,B,E
Apert
CDMA

*ATTEN 30dB
RL 51.3dBm

10dB/

MKR -16.70dBm
20.00GHz



START 1.00GHz STOP 20.00GHz
*RBW 300kHz VBW 300kHz SWP 530ms