

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - uplink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

09:21:07 MAY 29, 2003

REF 30.0 dBm

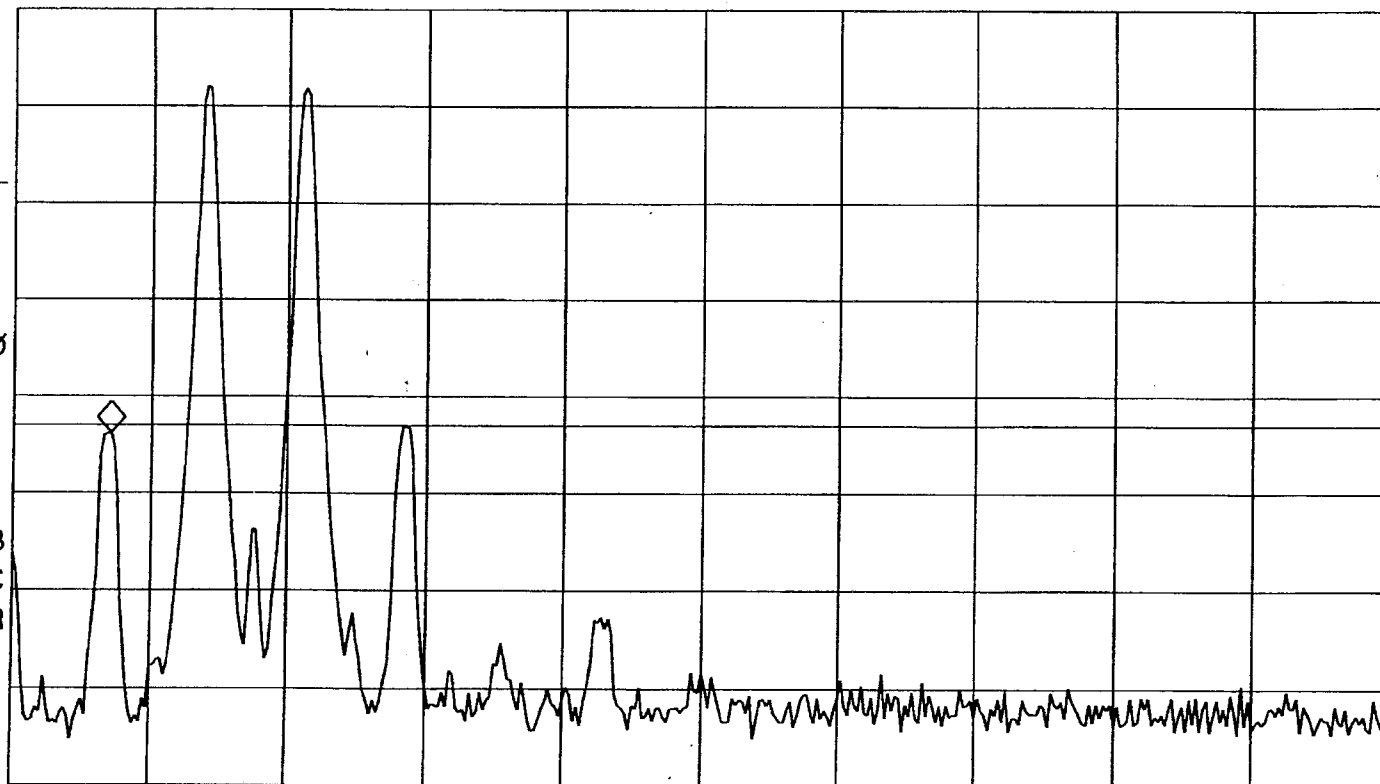
AT 20 dB

MKR 1.84490 GHz

-13.80 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

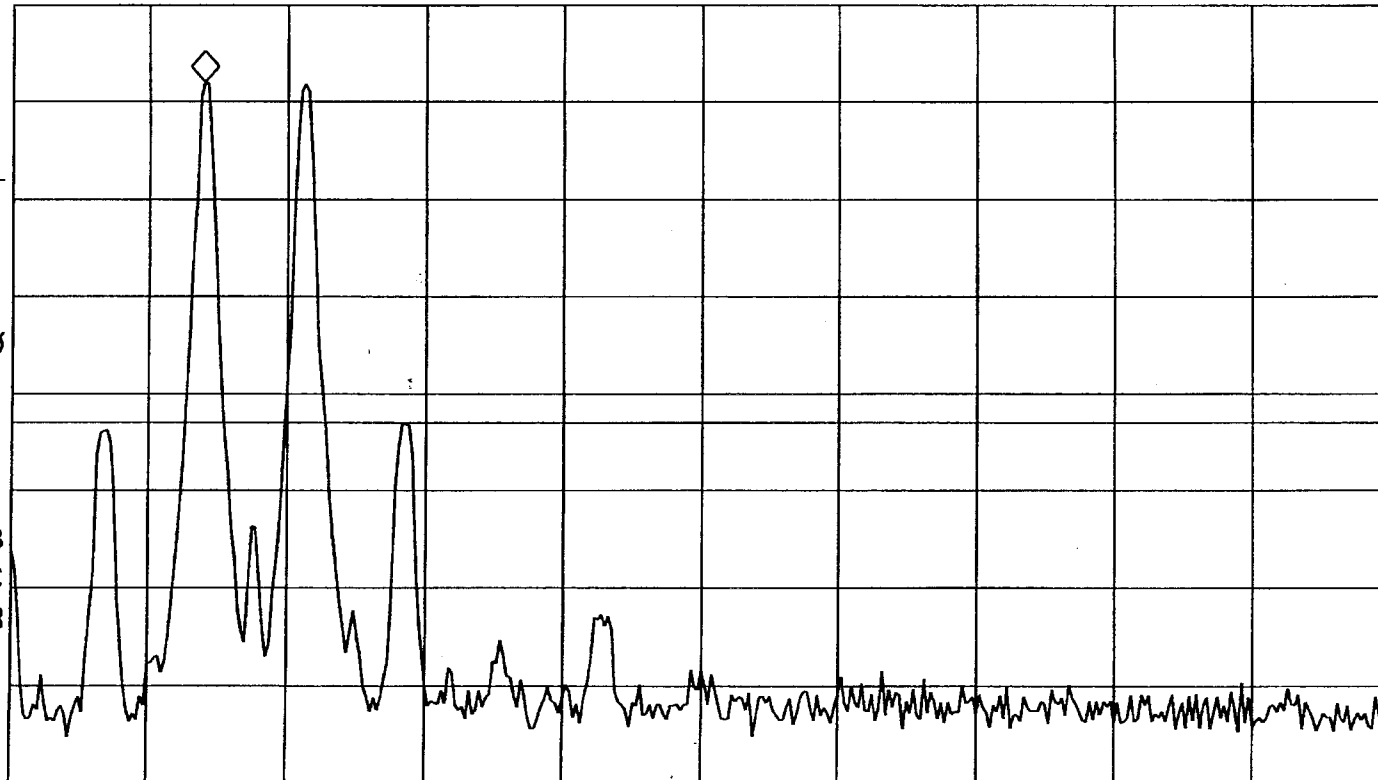
09: 21: 22 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.84980 GHz
22.06 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz
SWP 20.0 msec

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EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
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		Date:	5/29/03

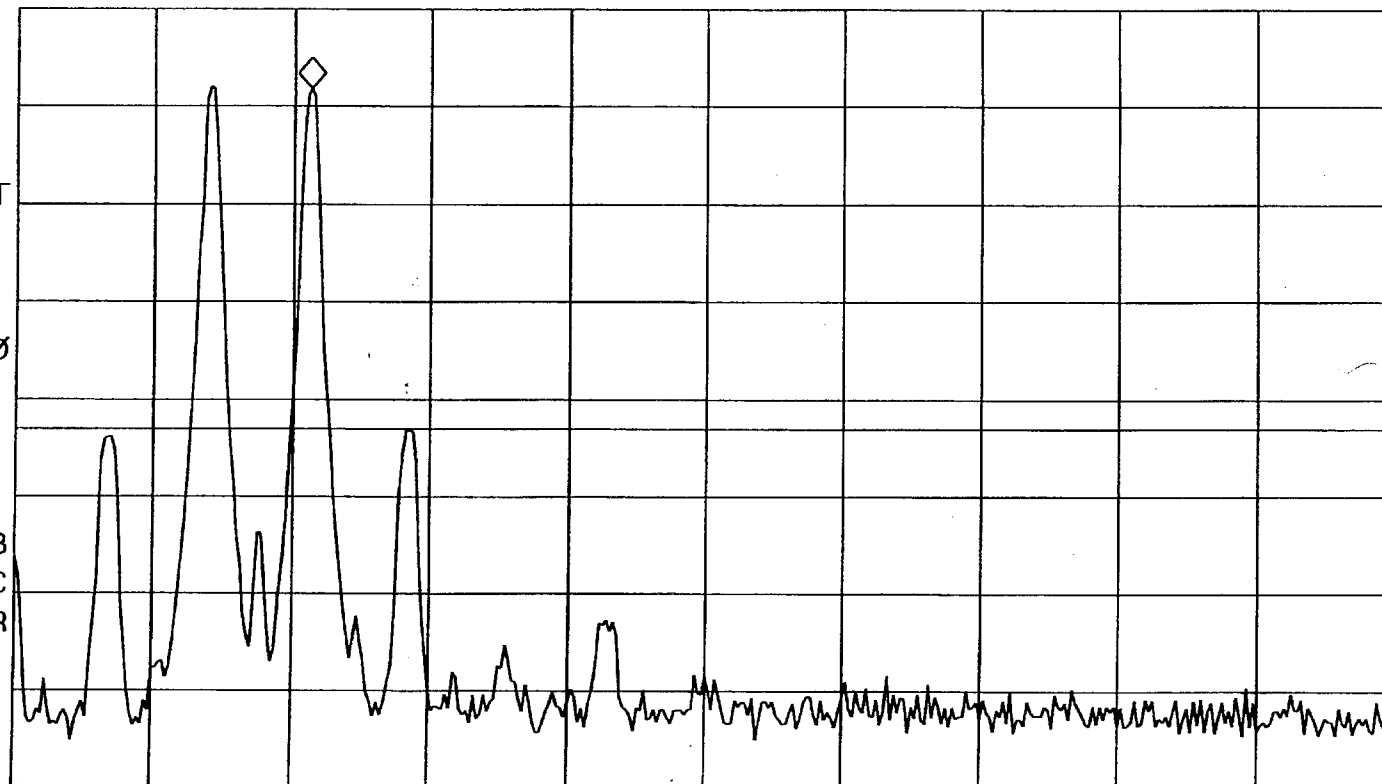
09: 21: 33 MAY 29, 2003

MKR 1.85488 GHz
21.85 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.91000 GHz

SWP 20.0 msec

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EMISSIONS DATA SHEET

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Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

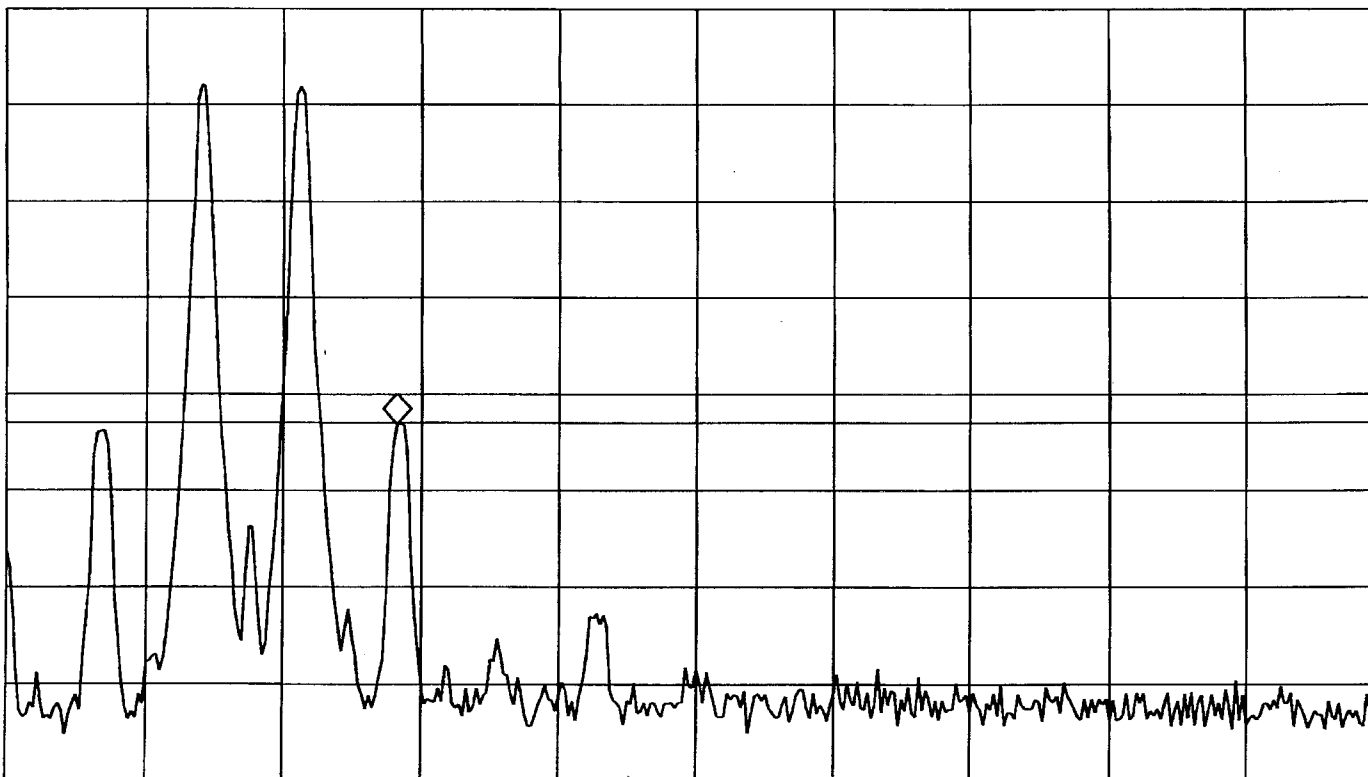
09: 22: 00 MAY 29. 2003

MKR 1.85978 GHz
-13.15 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.84000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.91000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - uplink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

09:26:07 MAY 29, 2003

REF 30.0 dBm

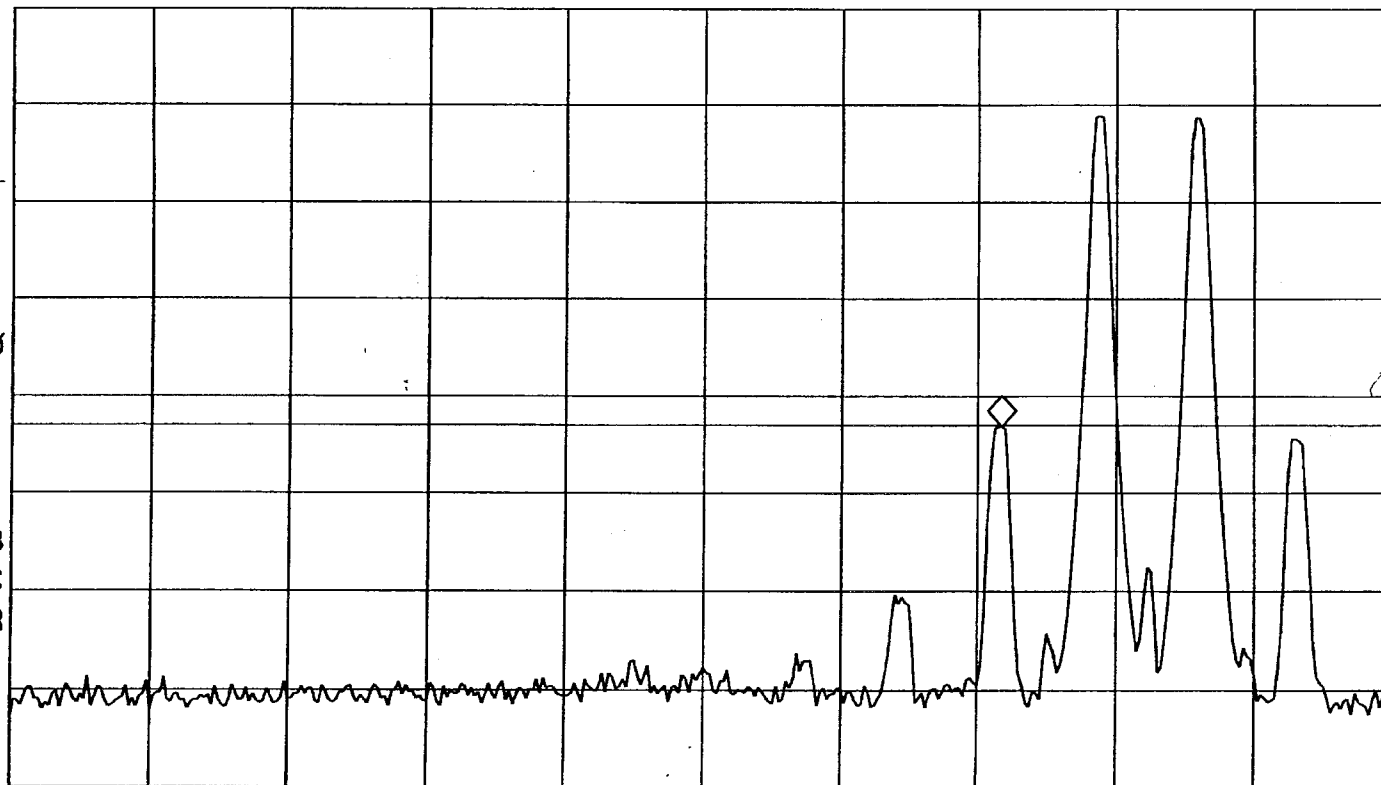
AT 20 dB

MKR 1.90023 GHz

-13.13 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.92000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Notes:	GSM - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

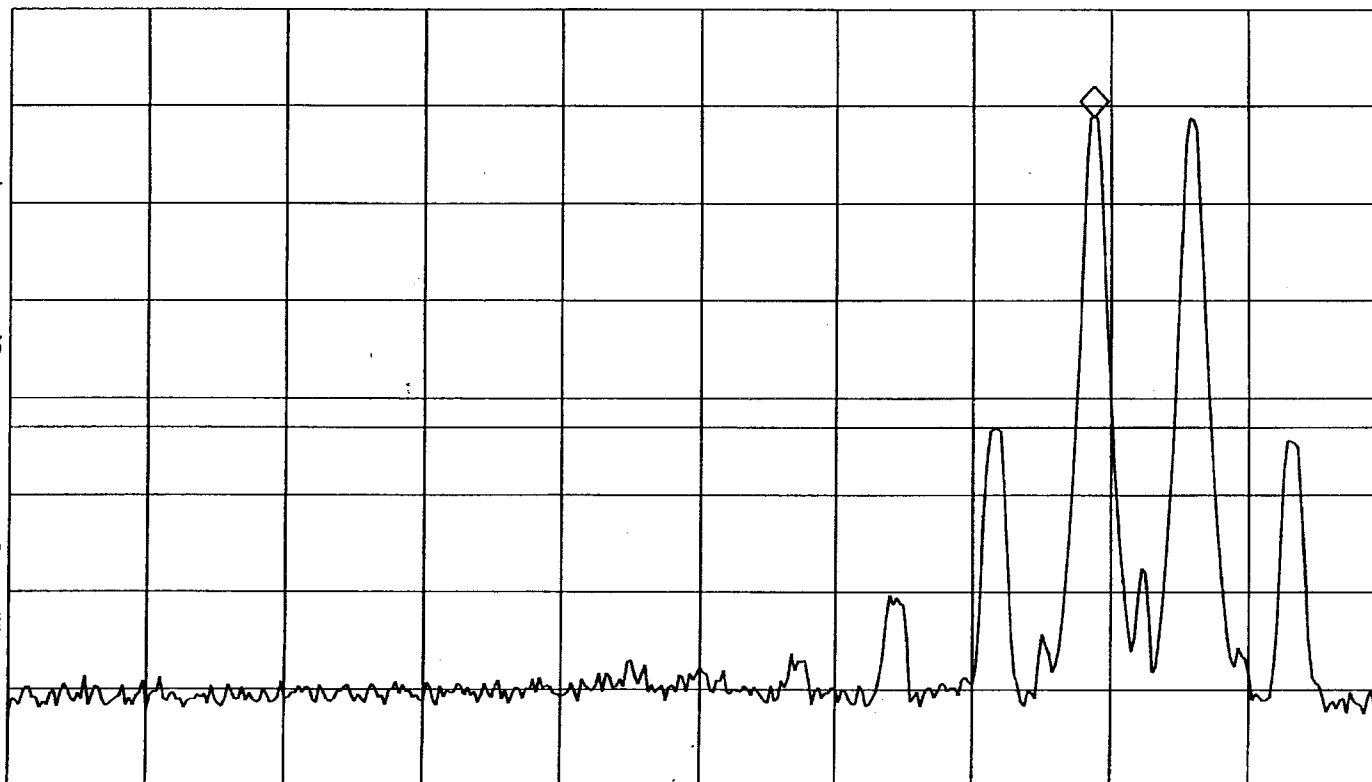
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REF 30.0 dBm AT 20 dB

MKR 1.90513 GHz
18.89 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

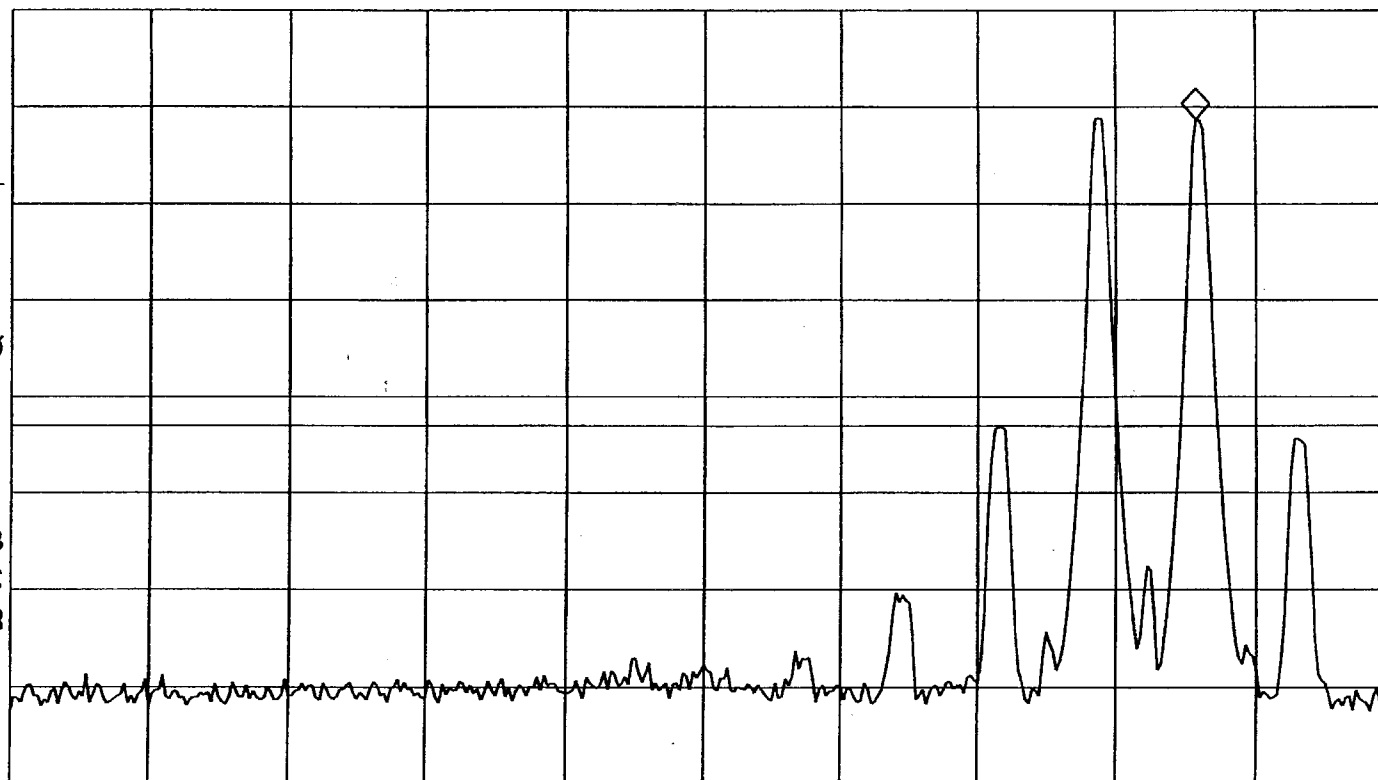
09: 26: 31 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.91003 GHz
18.75 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - uplink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

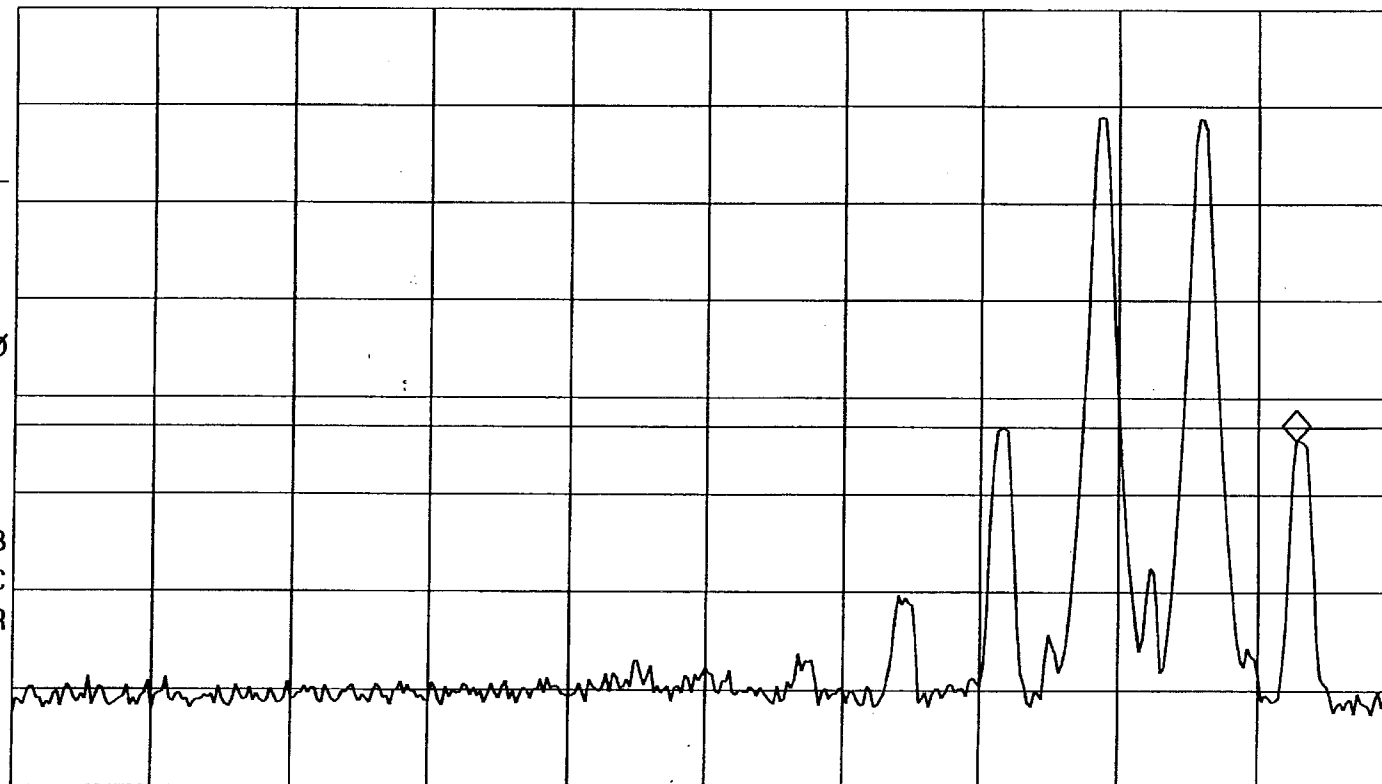
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MKR 1.91493 GHz
-14.41 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.85000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 1.92000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

09:33:38 MAY 29, 2003

REF 30.0 dBm

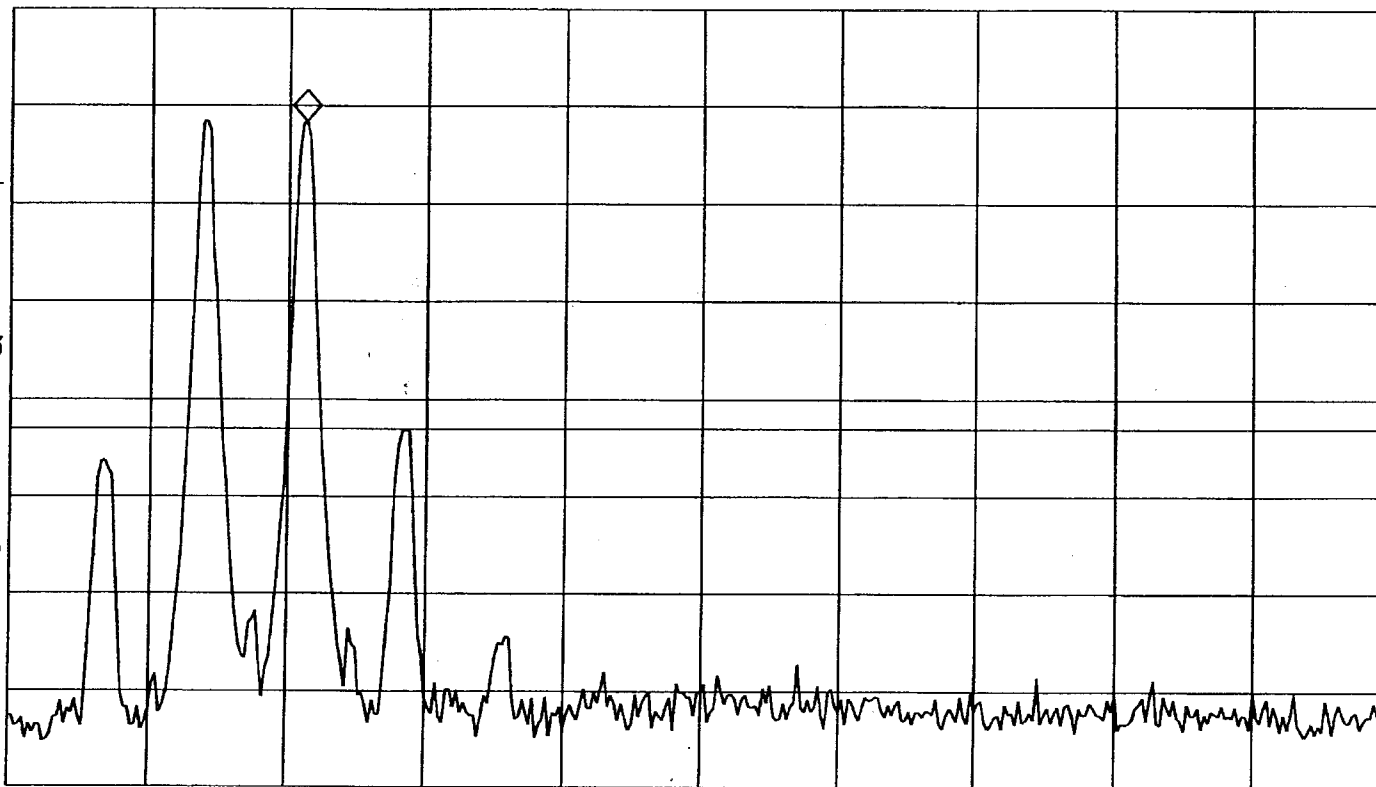
AT 20 dB

MKR 1.93488 GHz

18.45 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph: 2.1047	Date: 5/29/03
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - low end of band		

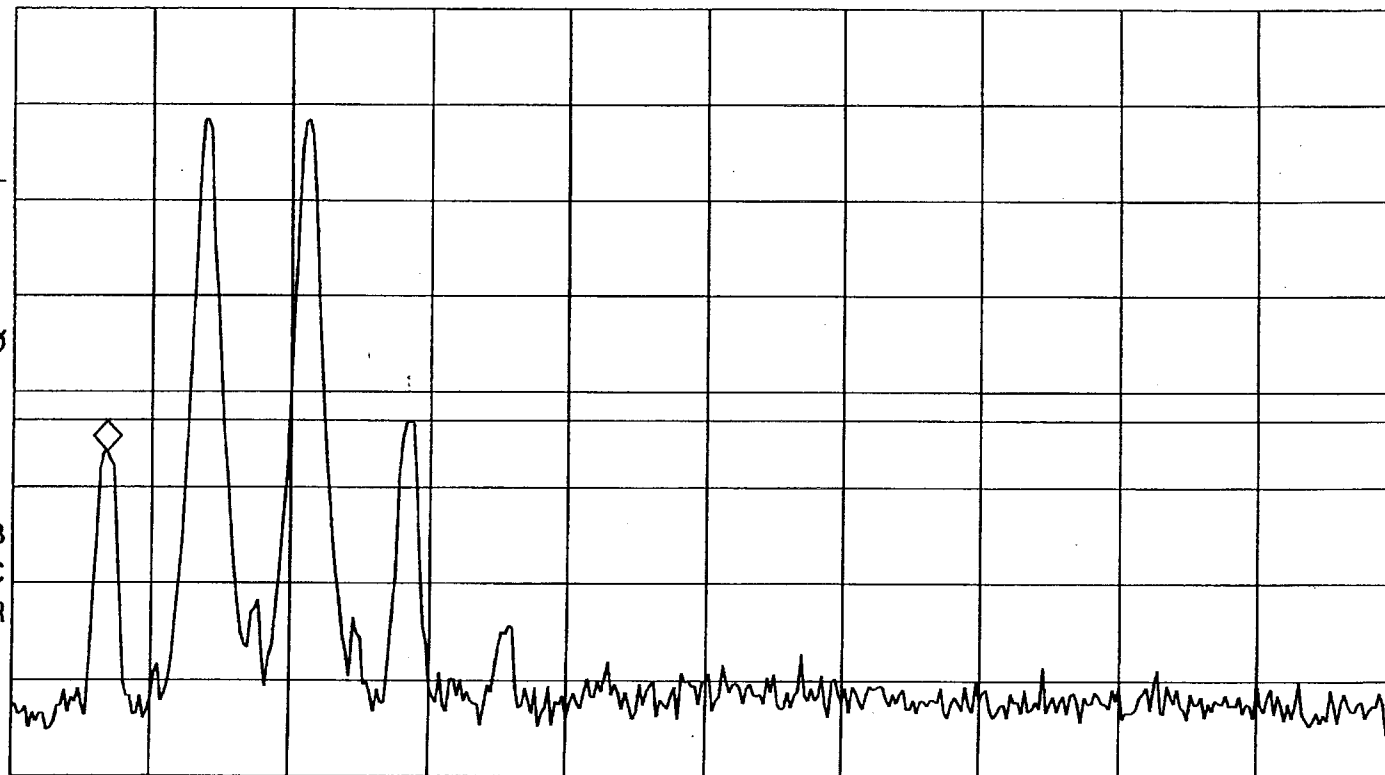
09:33:11 MAY 29, 2003

MKR 1.92473 GHz
-16.29 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Job No:	R-4132N		
Model No:	150PCS	Serial No:	n/a
Technician:	T. Firkowski		
Test Specification:	FCC Part 2	Paragraph:	2.1047
Date:	5/29/03		
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - low end of band		

09:33:28 MAY 29, 2003

MKR 1.92980 GHz

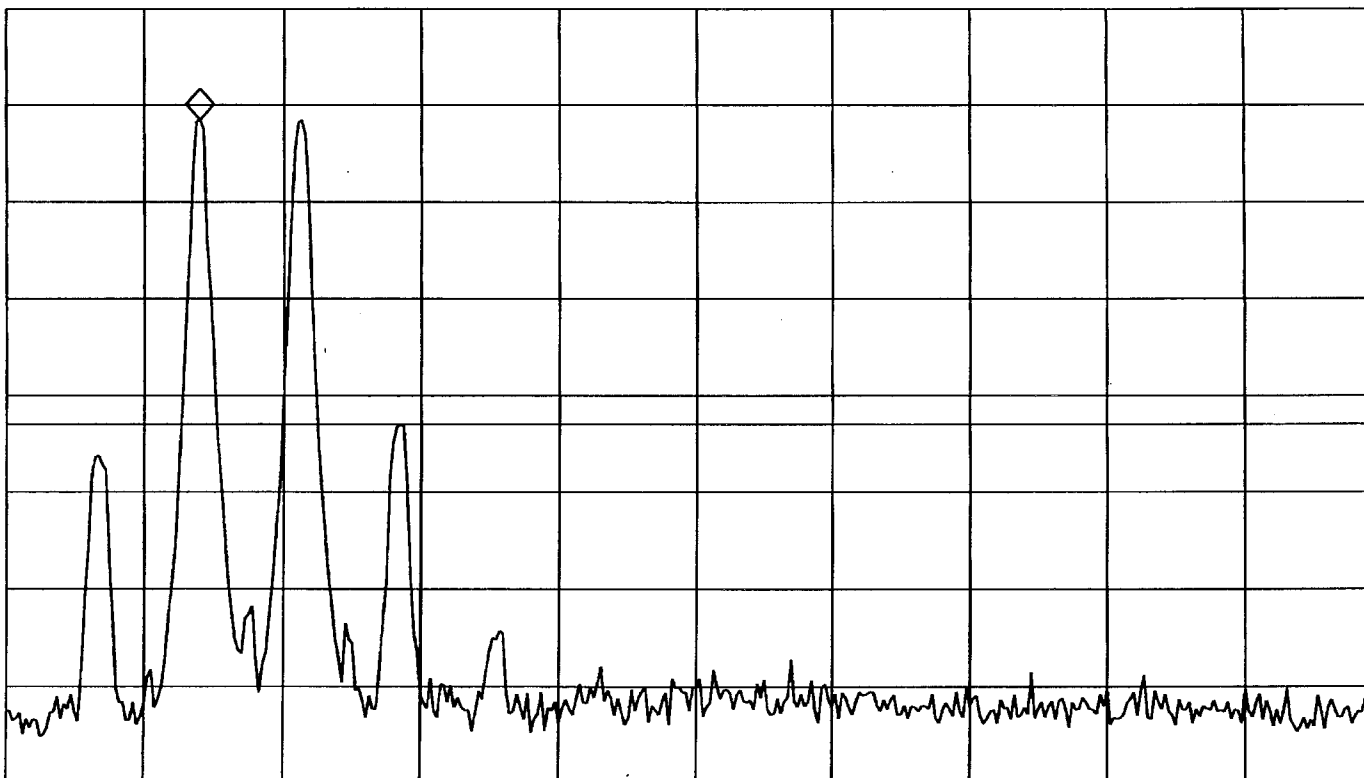
REF 30.0 dBm

AT 20 dB

18.48 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph: 2.1047	Date: 5/29/03
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - low end of band		

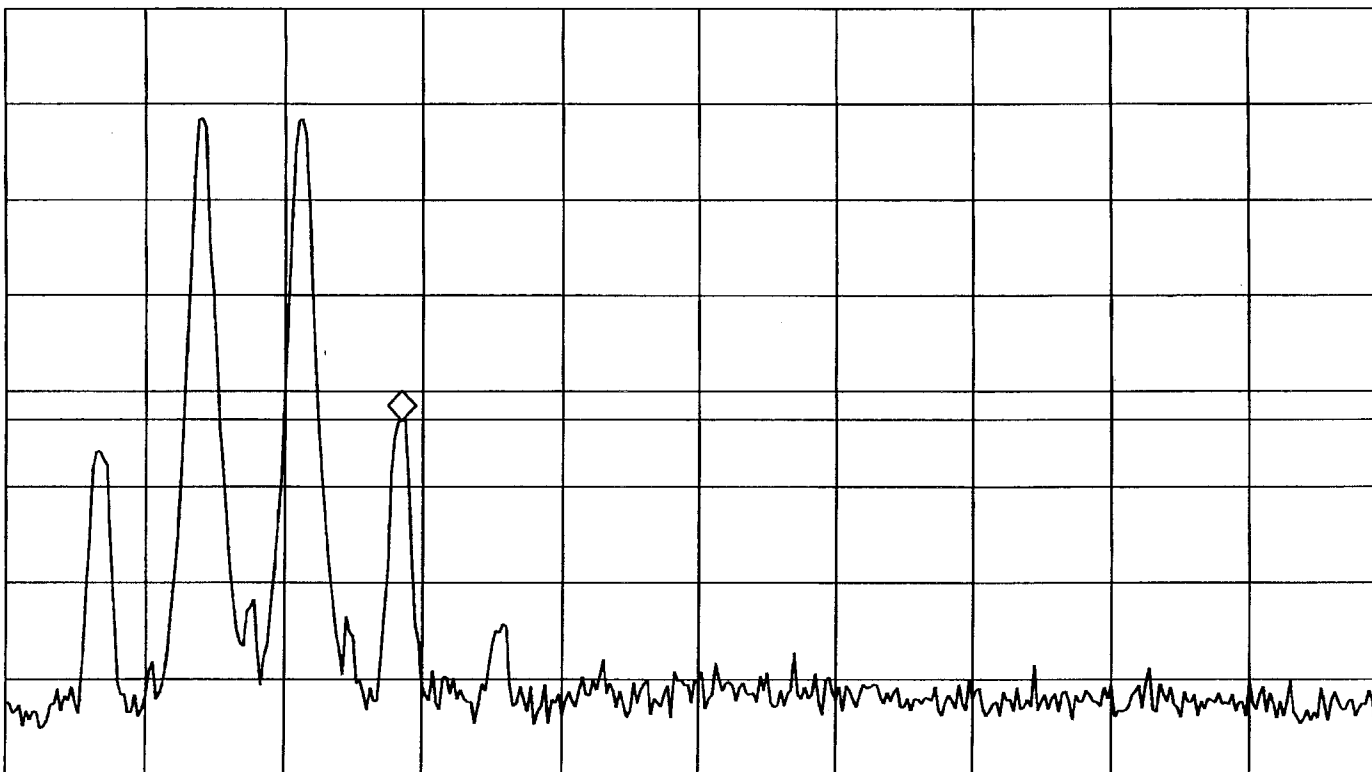
09:34:07 MAY 29, 2003

MKR 1.93995 GHz
-13.12 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

09:36:58 MAY 29, 2003

REF 30.0 dBm

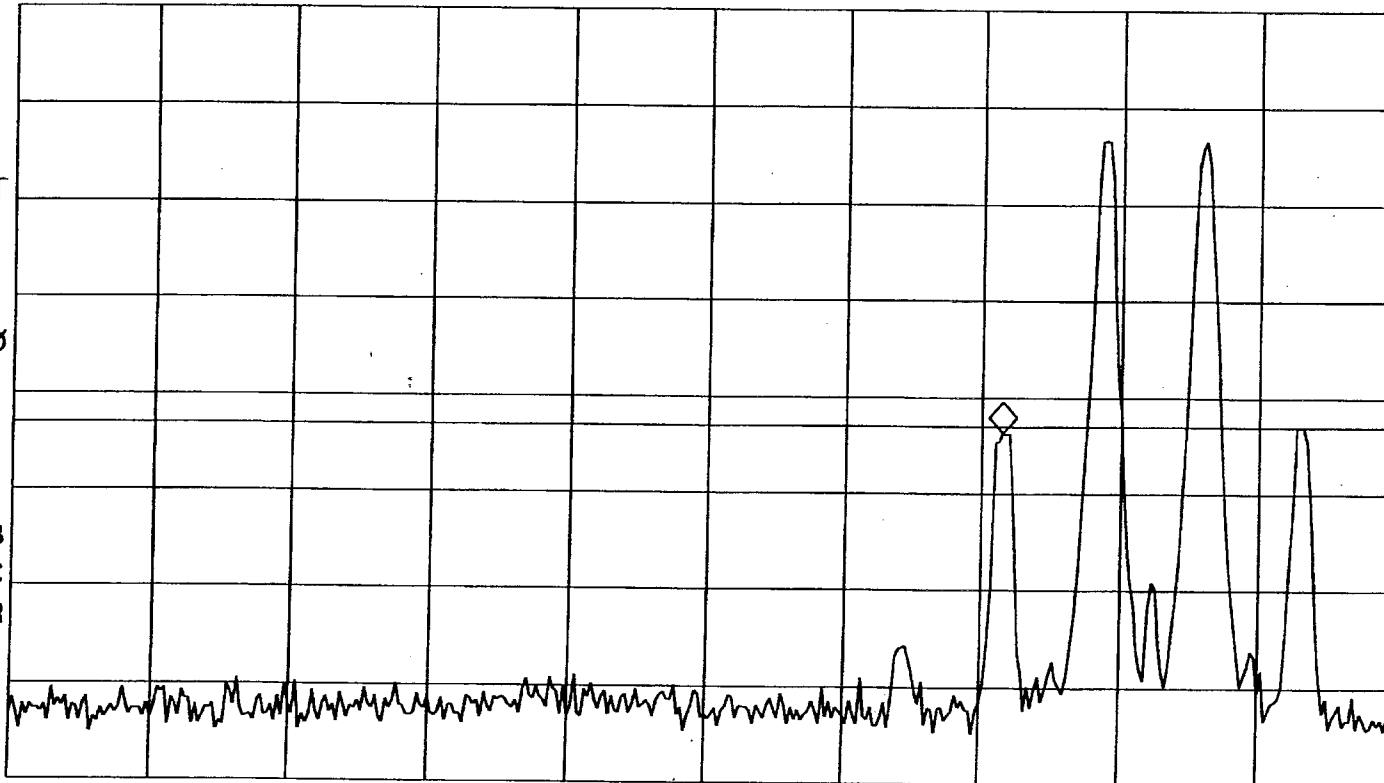
AT 20 dB

MKR 1.98005 GHz

-13.65 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

09:37:04 MAY 29, 2003

REF 30.0 dBm

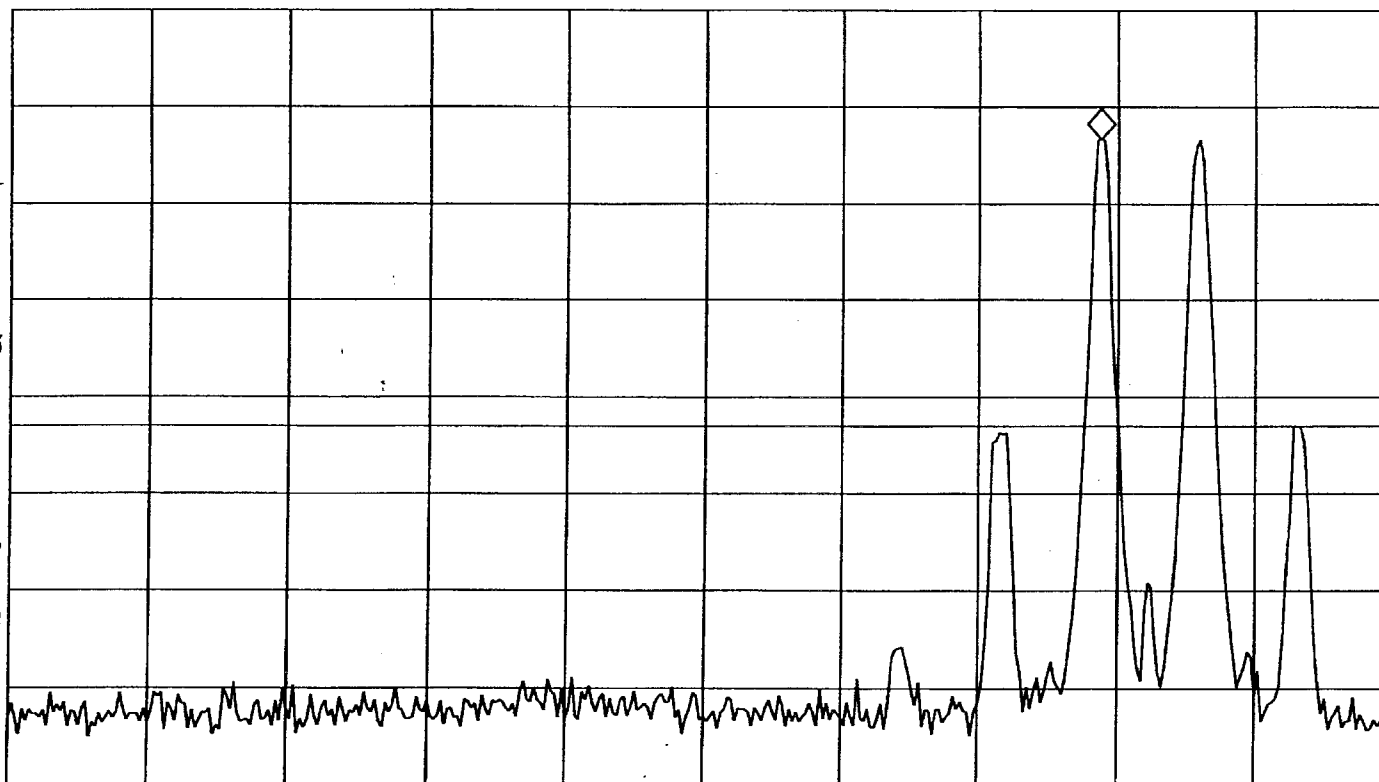
AT 20 dB

MKR 1.98513 GHz

16.66 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	GSM - downlink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

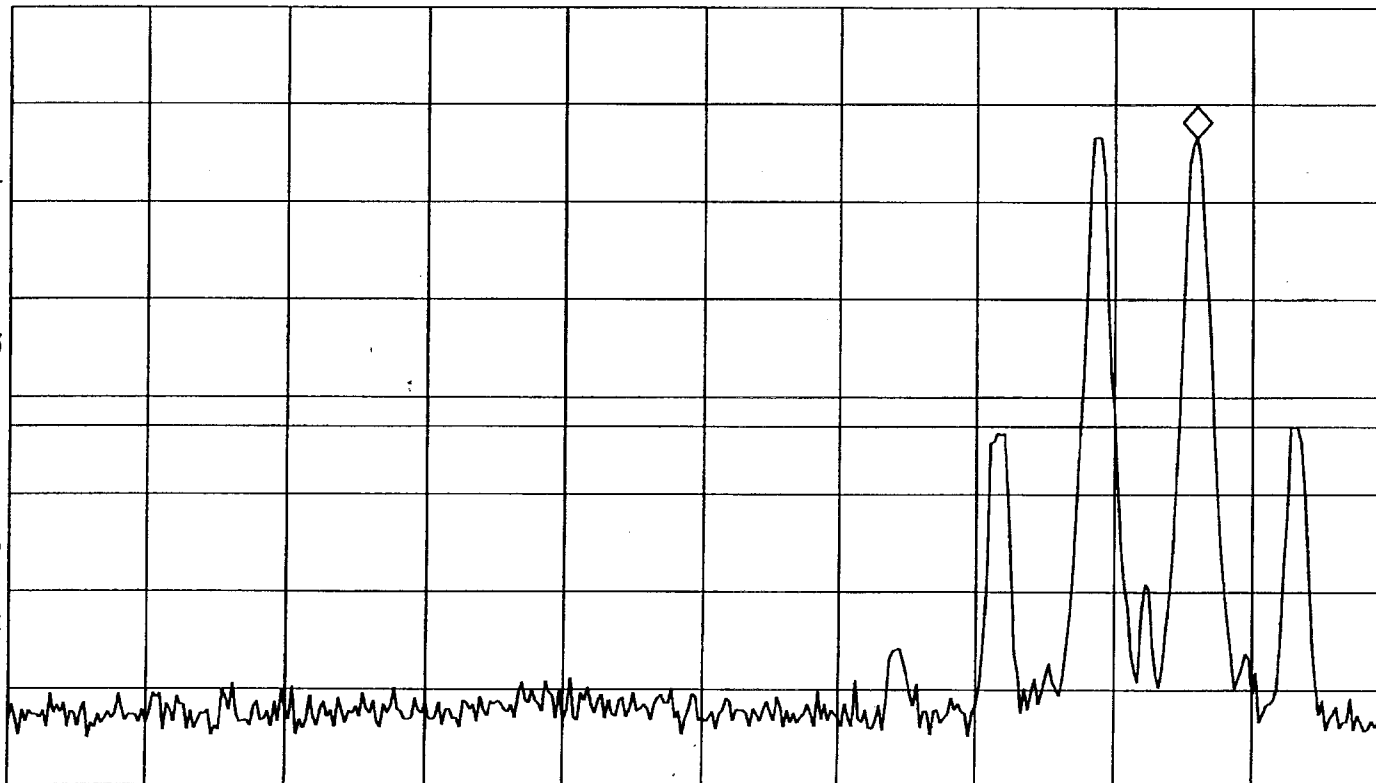
09:37:27 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.99020 GHz
16.62 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz
#RES BW 300 kHz

VBW 1 MHz

STOP 2.00000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Notes:	GSM - downlink - high end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
Date:	5/29/03		

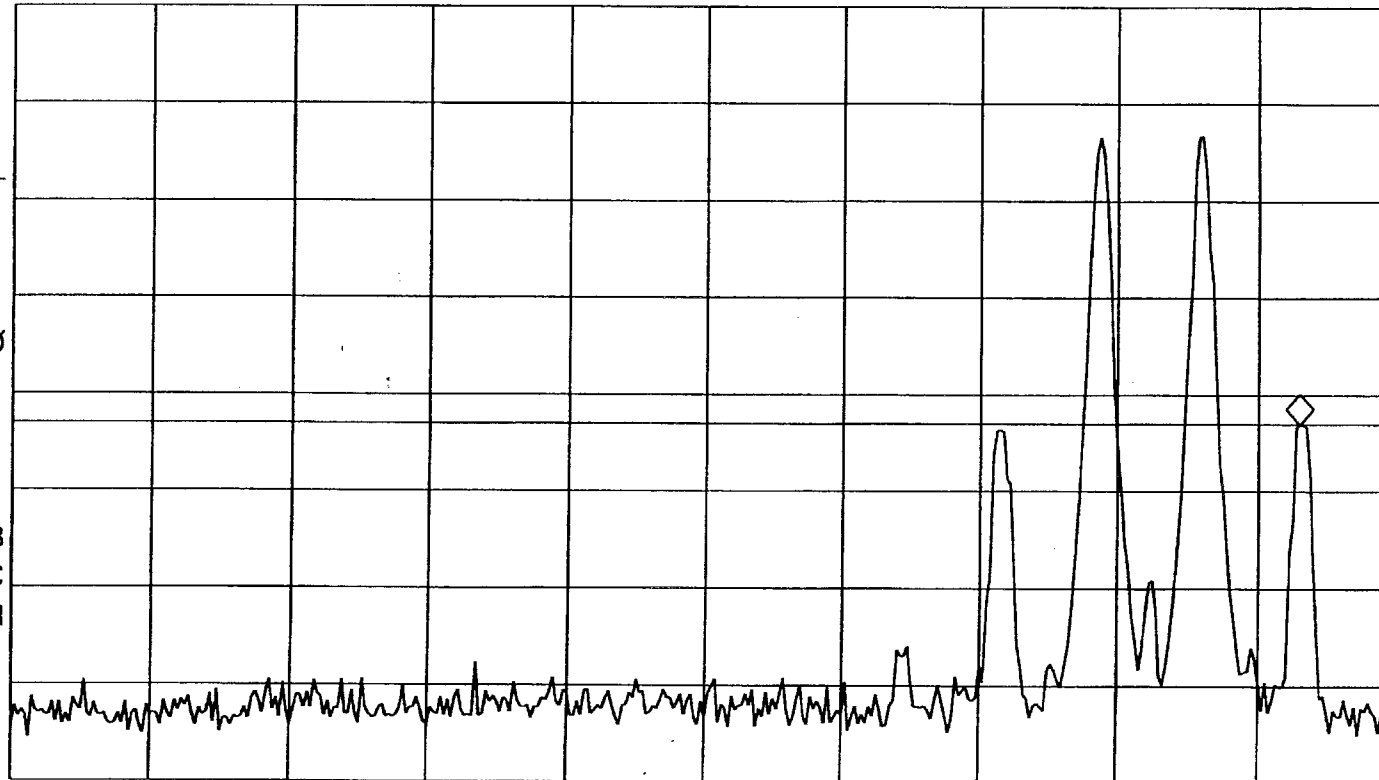
09:38:27 MAY 29, 2003

MKR 1.99510 GHz
-13.05 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

09: 42: 54 MAY 29, 2003

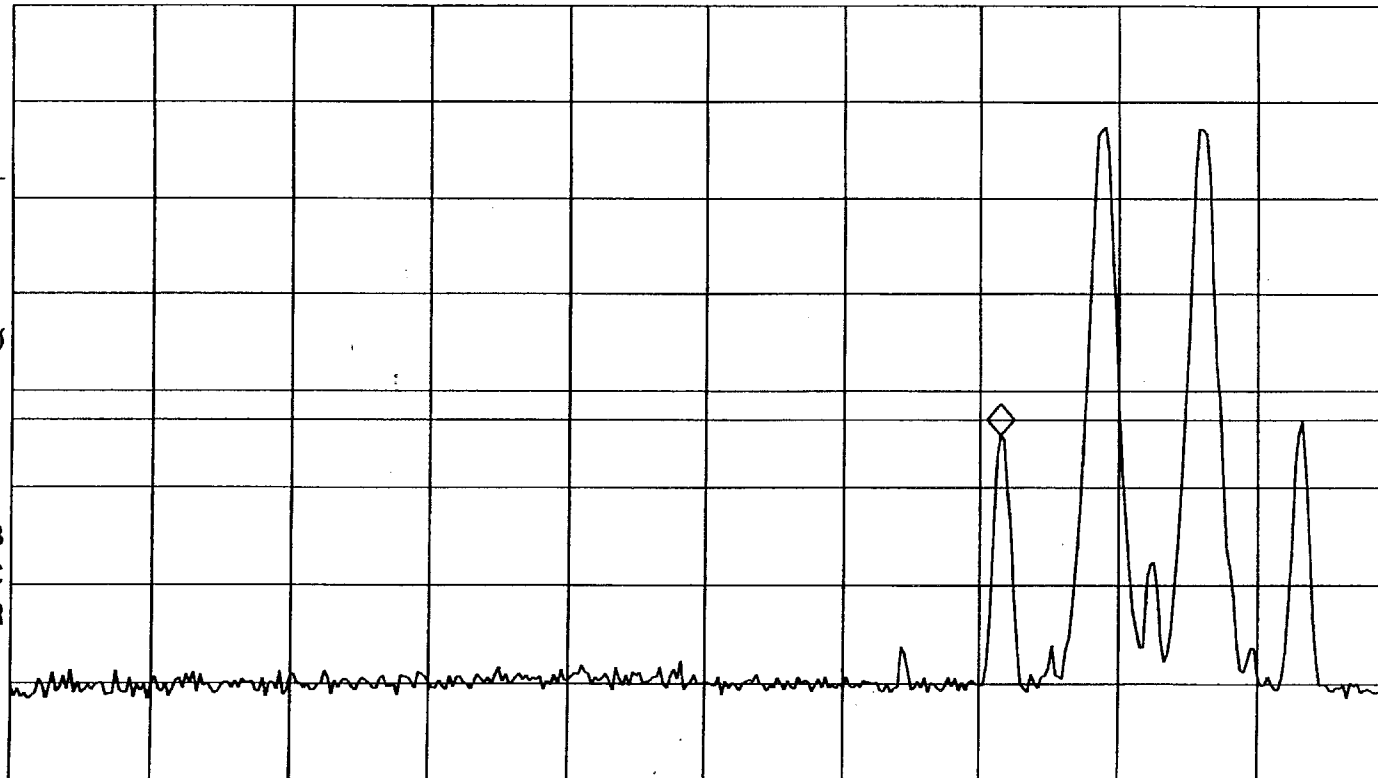
REF 30.0 dBm

AT 20 dB

MKR 1.98005 GHz
-14.57 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

09: 42: 37 MAY 29, 2003

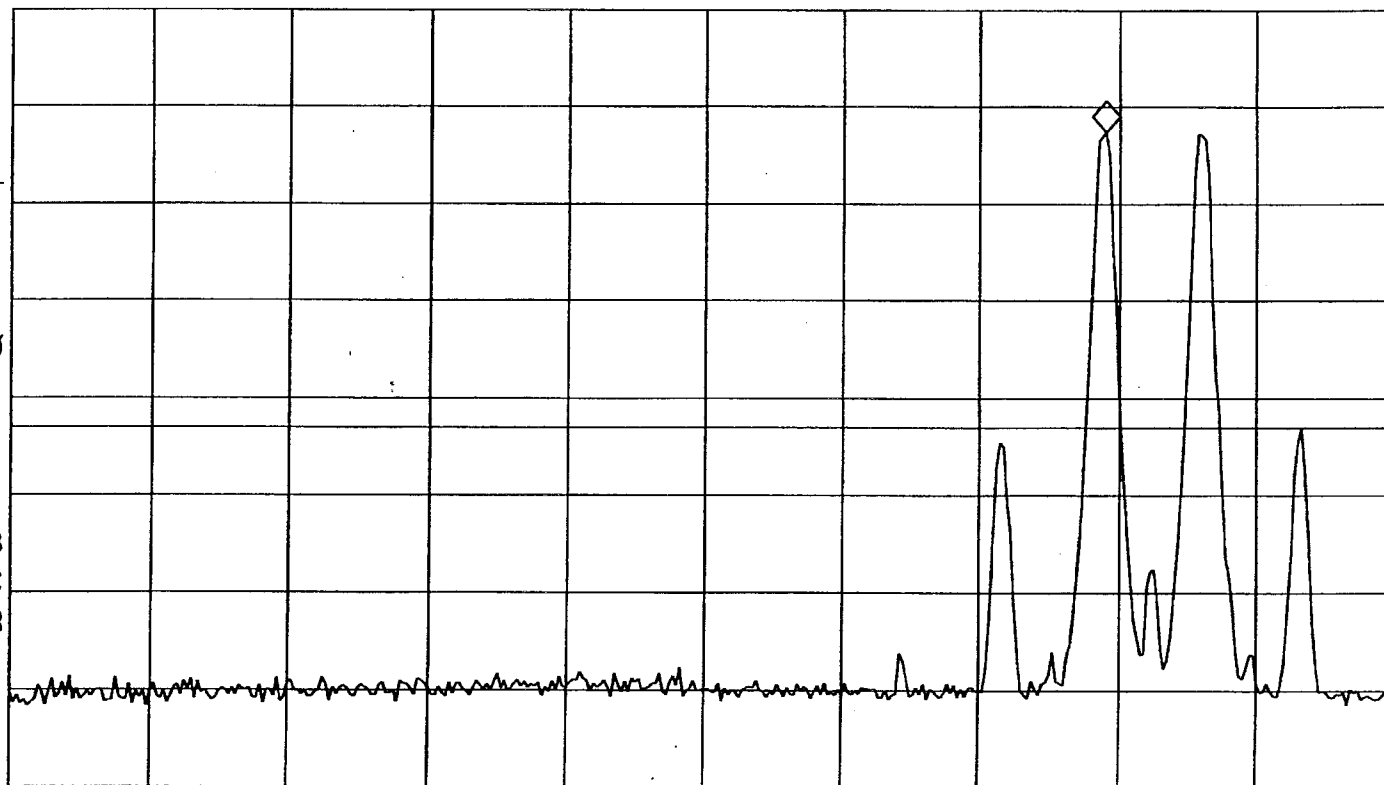
REF 30.0 dBm

AT 20 dB

MKR 1.98530 GHz
17.43 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
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Notes:	TDMA - downlink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

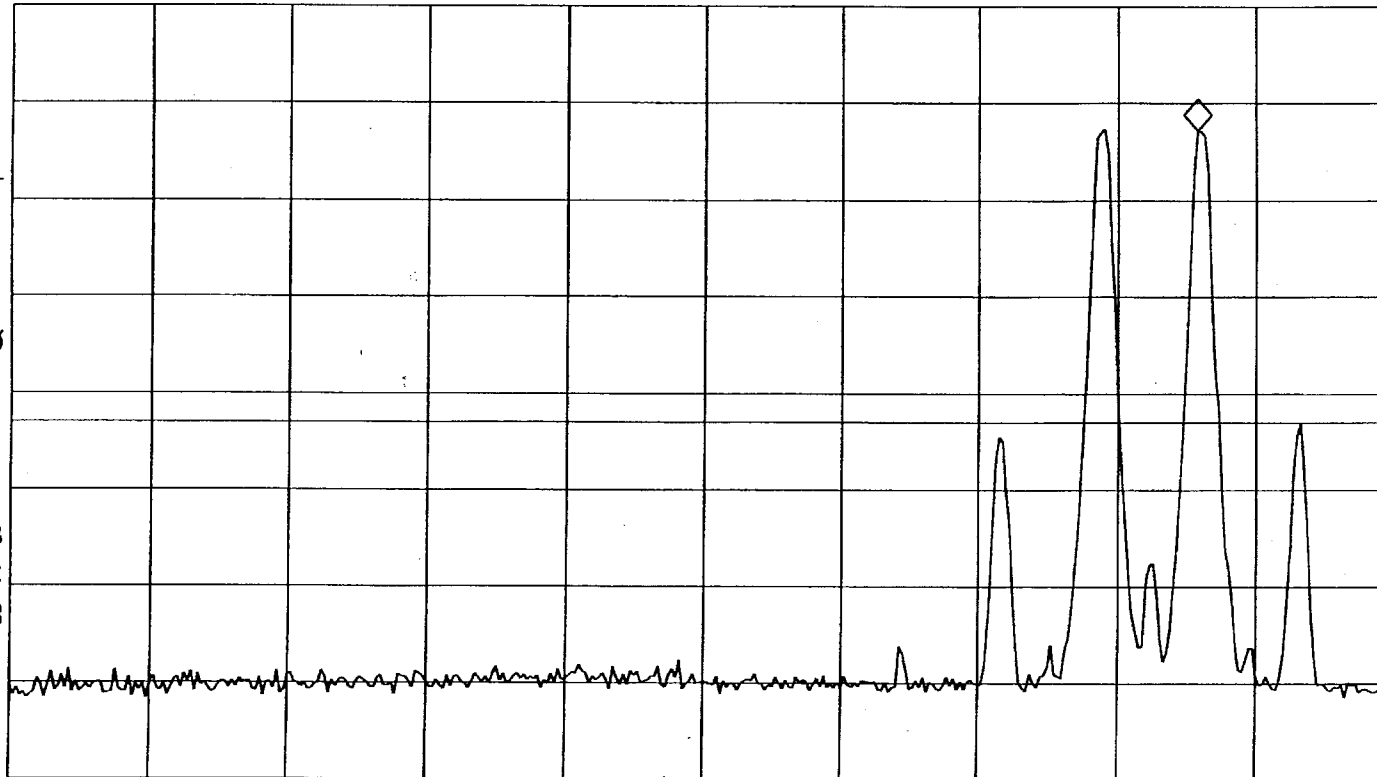
09: 42: 18 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.99003 GHz
17.24 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

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Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
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Notes:	TDMA - downlink - high end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

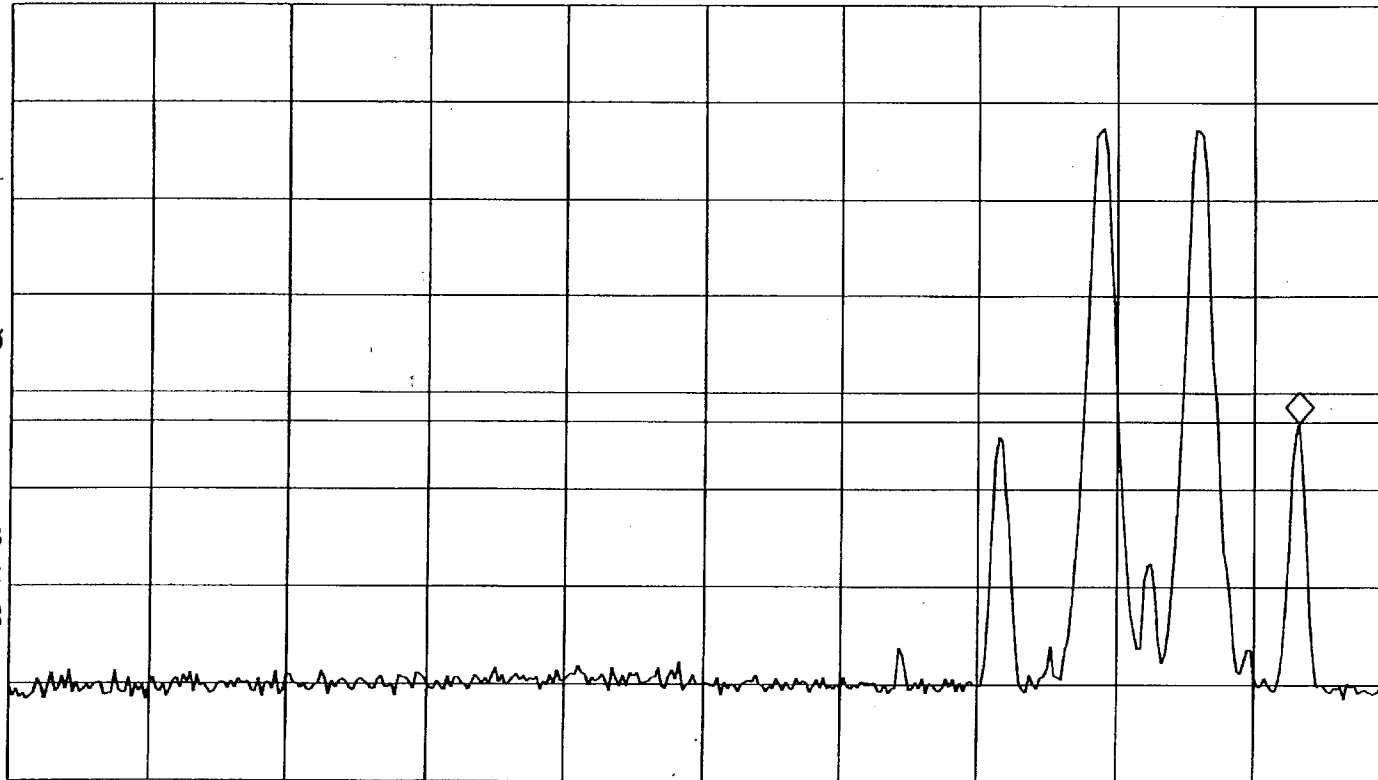
09: 42: 12 MAY 29, 2003

REF 30.0 dBm AT 20 dB

MKR 1.99528 GHz
-13.07 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.93000 GHz
#RES BW 300 KHz

VBW 1 MHz

STOP 2.00000 GHz
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

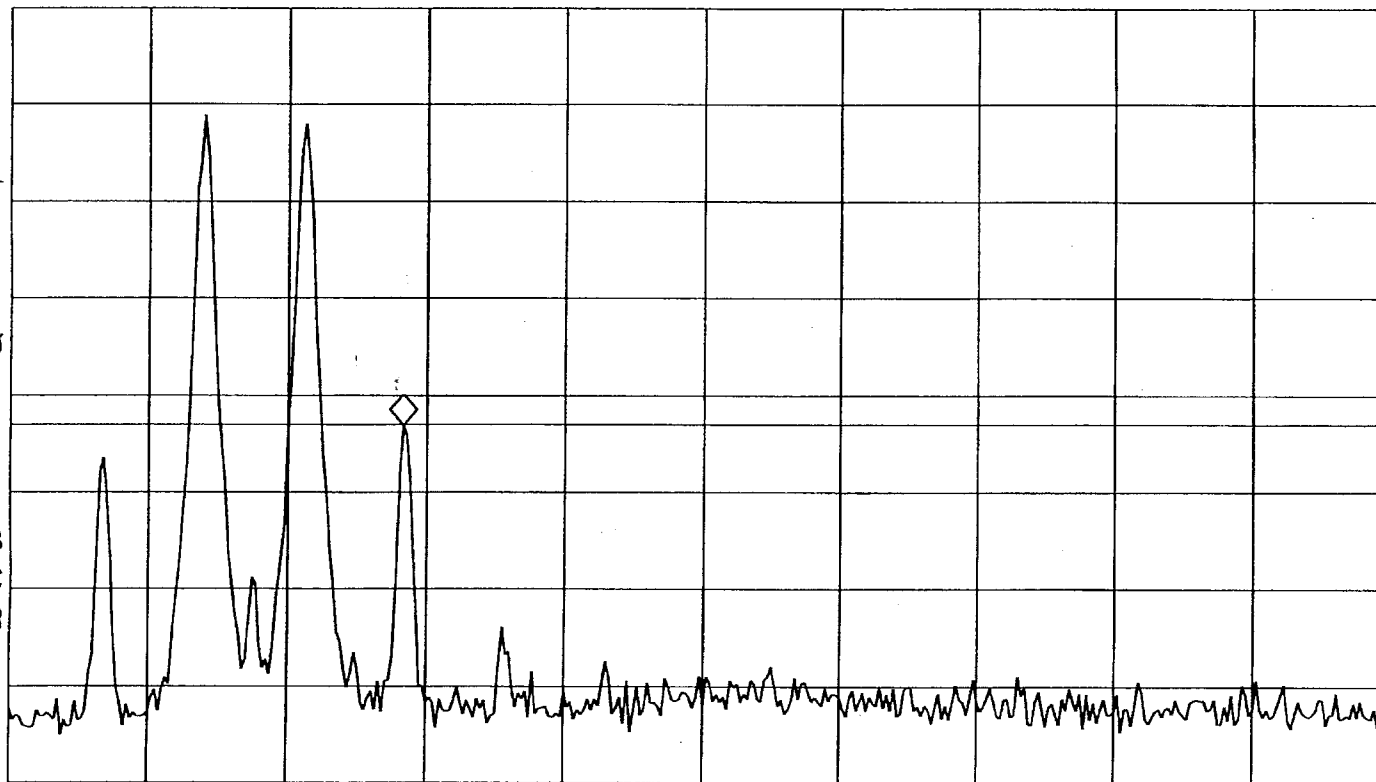
09: 48: 58 MAY 29, 2003

MKR 1.93978 GHZ
-13.08 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHZ
#RES BW 300 KHZ

VBW 1 MHZ

STOP 1.99000 GHZ
SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

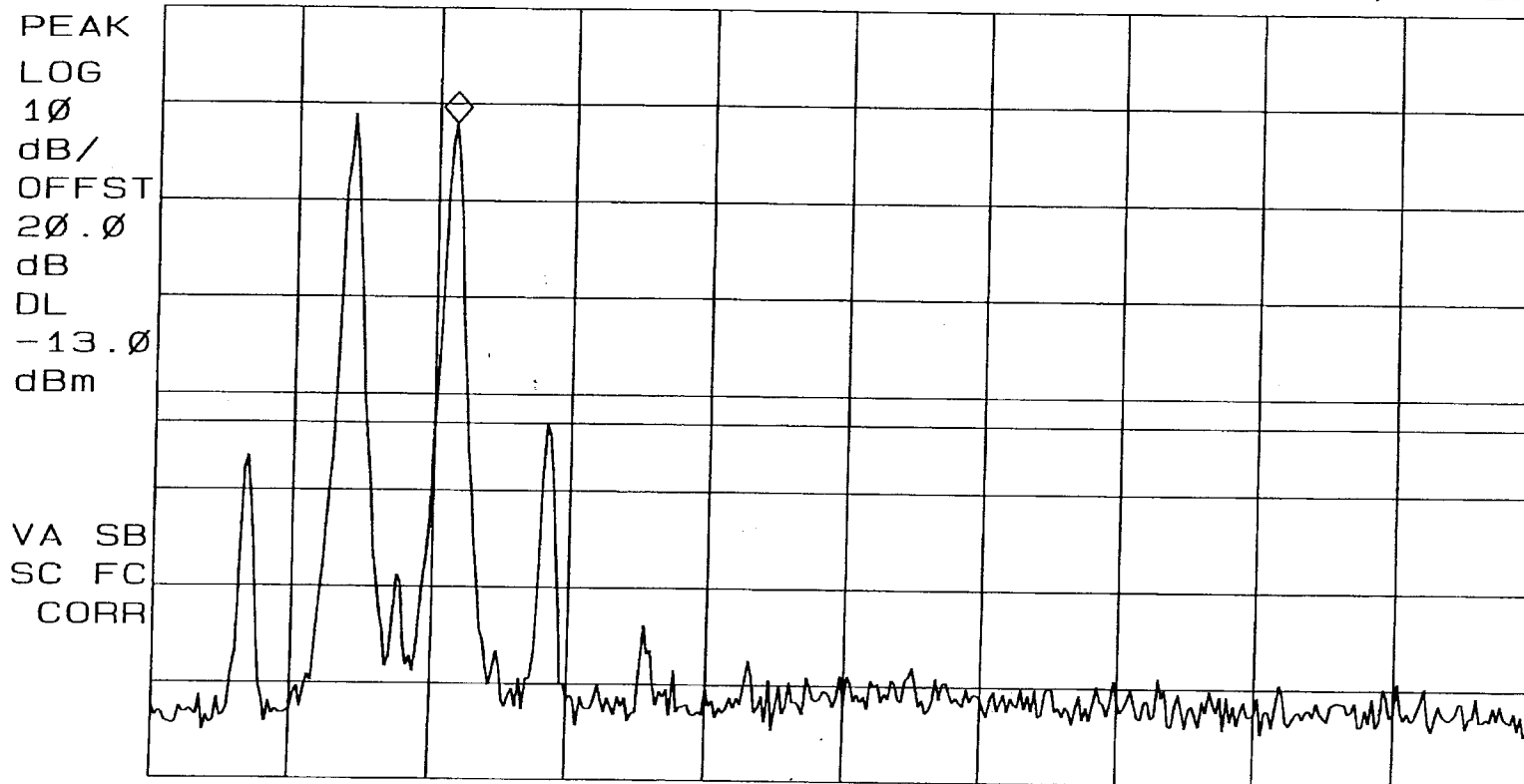
09: 49: 04 MAY 29, 2003

MKR 1.93488 GHz

REF 30.0 dBm

AT 20 dB

18.04 dBm



START 1.92000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - low end of band		
Job No:	R-4132N		
Technician:	T. Firkowski		
Date:	5/29/03		

09: 49: 21 MAY 29, 2003

MKR 1.92980 GHz

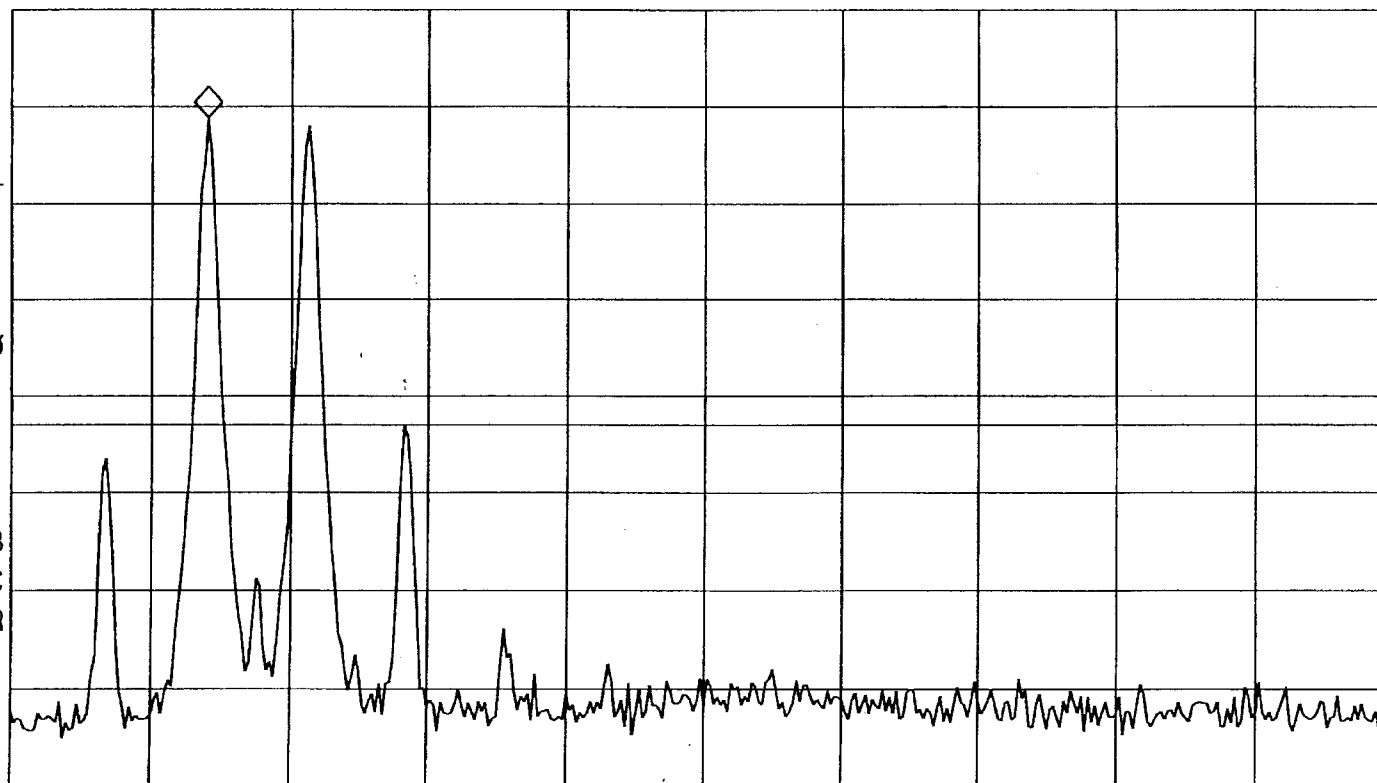
REF 30.0 dBm

AT 20 dB

18.87 dBm

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 kHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec

RETLIF TESTING LABORATORIES

EMISSIONS DATA SHEET

Test Method:	Two Tone		
Customer:	Cellular Specialties, Inc.	Test Sample:	Bidirectional Amplifier
Model No:	150PCS	Serial No:	n/a
Test Specification:	FCC Part 2	Paragraph:	2.1047
Operating Mode:	Amplifying input signal		
Notes:	TDMA - downlink - low end of band		
Job No:	R-4132N		Technician:
		T. Firkowski	
		Date:	5/29/03

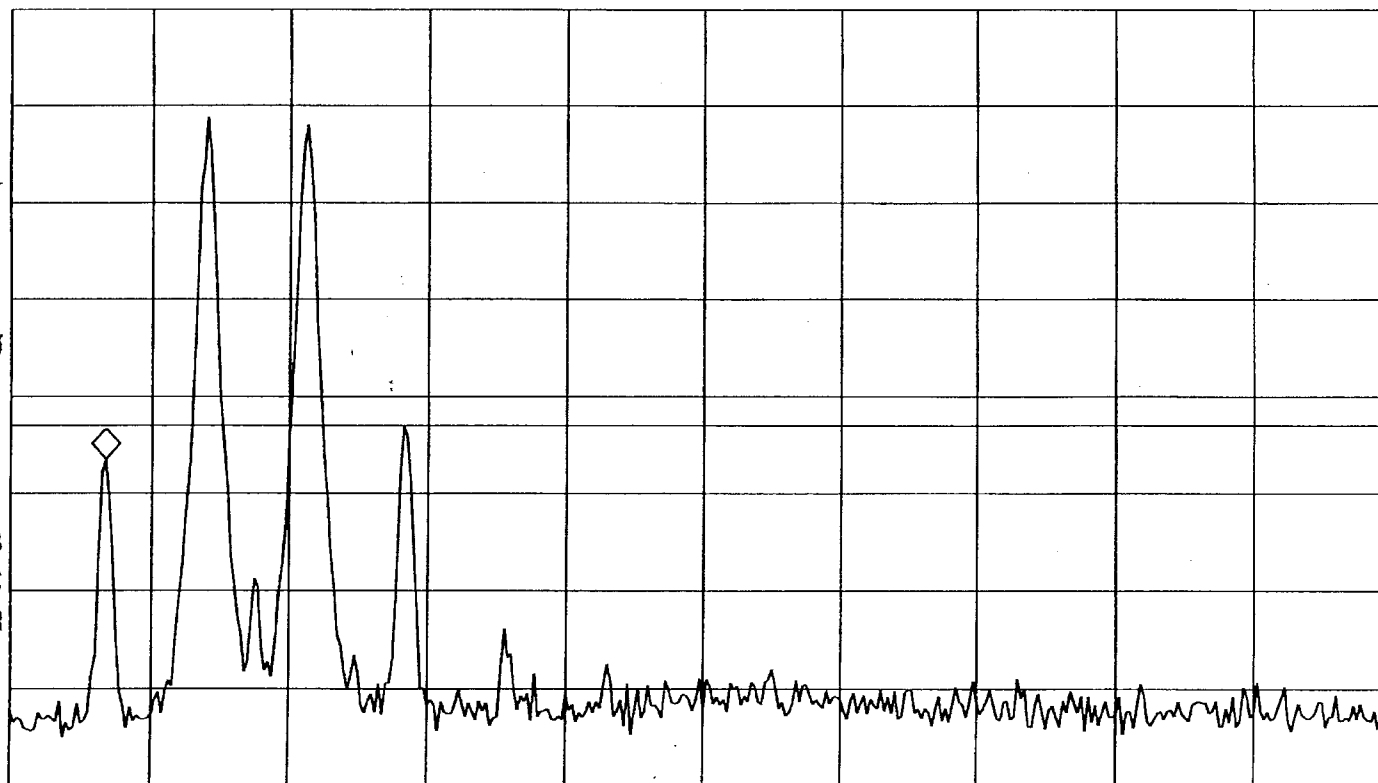
09: 49: 50 MAY 29, 2003

MKR 1.92473 GHz
-16.50 dBm

REF 30.0 dBm AT 20 dB

PEAK
LOG
10
dB/
OFFST
20.0
dB
DL
-13.0
dBm

VA SB
SC FC
CORR



START 1.92000 GHz

#RES BW 300 KHz

VBW 1 MHz

STOP 1.99000 GHz

SWP 20.0 msec